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The heat and the light of Marshall McLuhan: A 1990s reappraisal

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Abstract

Canadian intellectual Marshall McLuhan (1911-1980) left a controversial legacy. This dissertation addresses the four chief paradoxes that his work poses for contemporary commentators: the core meaning of his texts; the tradition in which his contribution now seems most intelligible; the divergent response to his work; and the enduring yet fragmentary impact of his contribution to popular and academic life. Taking a rhetoric of inquiry approach, modified by Gerald Holton's writing in the history of science, this reappraisal argues for McLuhan's significance as a theorist of communications as techno-cultural transformation or "mediamorphosis"; for his seminal role within the Toronto School of Communications; and for his inspiring relevance within the interdiscipline of communications, despite the forging of a negative academic consensus against his work in the early 1970s. McLuhan united the ancient arts of grammar and rhetoric into a techno-cultural hermeneutics that constitutes an unexhausted approach to the study of the impacts of media and technologies on sensibilities, literacies and culture.

Résumé

La valeur ultime de l'œuvre du Canadien Marshall McLuhan (1911-1980) demeure toujours controversée. L'élaboration de la critique doit faire face à quatre grands paradoxes, paradoxes qui sont traités dans cette thèse: la signification essentielle des textes; le cadre intellectuel le plus susceptible d'apporter une haute intélligibilité aux textes; la réception plurielle et polarisée de l'œuvre; et la nature durable et fragementaire des contributions de McLuhan aux milieux populaires et académiques. Malgré l'élaboration dans les milieux académiques au début des années soixante-dix d'une hégémonie contre McLuhan, ce penseur demeure pertinant et il continue à inspirer le domaine interdisciplinaire des communications. Son importance comme théoricien de la "morphomédiagénétique" ou des communications comme transformations techno-culturelles ainsi que son apport fondamental à l'école torontoise des études en communications sont ici réévalués par le biais d'une approche dite rhétorique du questionnement (rhetoric of inquiry) appliquée selon des critères décrits par Gerald Holton, l'historien des sciences. C'est en mariant les anciens domaines de la grammaire et de la rhétorique que McLuhan nous offre une herméneutique techno-culturelle et une approche aux études historiques des effets médiatiques et technologiques, de leur impact sur les mentalités, les savoirs-faire communicatifs, et la culture. L'exploitation et l'exploration exhaustives de l'œuvre de McLuhan reste encore à faire.

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For my mother, E. Jane Jeffrey

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Introduction

> "My purpose is to tell of bodies which have been transformed into shapes of a different kind."
>
> Ovid, *Metamorphoses*

> "[A]ny technology gradually creates a totally new human environment. Environments are not passive wrappings but active processes."
>
> McLuhan, *Understanding Media*

"The Heat and the Light" reappraises the contribution of Canadian intellectual H. Marshall McLuhan (1911-1980) and the controversies provoked by his ideas and style of expression. In this introduction I will set out the rationale and objectives for the investigation, explain the interpretive framework, and summarize the methodological and theoretical orientation. But first, let me briefly introduce McLuhan and the central reason why his work warrants reappraisal in the 1990s.

Introducing McLuhan

Marshall McLuhan's stunning catapult to fame in the mid 1960s placed a neglected topic on the agenda for international public debate: the transformation of cultures by pervasive media technologies. He announced that, at the dawn of the twentieth century, the West had shifted out of the Gutenberg Galaxy and into a new age which originated in the 1840s when the telegraph began to spread. McLuhan described this momentous shift as an unconscious process of "multiple transformations, which are the normal consequences of introducing new media into any society whatever" (*The Gutenberg Galaxy* 1962, 279). As digital computer media succeed television and grow increasingly powerful and pervasive during the 1990s, McLuhan's insights are once again relevant because they hold important clues for those who seek to comprehend and perhaps to direct the forces of contemporary techno-cultural change. For this reason

alone, McLuhan's work deserves reappraisal at this time.

A Cambridge-educated professor of English at the University of Toronto and self-appointed doctor of shock, McLuhan became world famous for inventing vivid metaphors such as "the global village". He argued controversially that to understand media, attention should be directed not at the content but rather at the power of the media form to impose assumptions unconsciously. His aphorism, "the medium is the message" immortalized this point. In 1951, for example, he argued that the newspaper form--consisting of articles strung together by a dateline--has a greater impact than the ephemeral daily stories. This was the power of the press that concerned him. An innovative educator, McLuhan experimented with a variety of consciousness-raising tactics, including his published books and collaborations, media appearances, and frequent speaking engagements. A practised student of the ancient arts of rhetoric and grammar, he searched for effective oral and textual devices to express and promote his ideas. Ignoring conventional disciplinary boundaries, he drew on diverse scholarly and artistic sources in order to discover patterns and to illustrate his arguments. In the 1940s he was one of the first scholars to take seriously the subject of popular culture. His first book, *The Mechanical Bride* (1951), featured advertising samples alongside witty and erudite commentary on what he called the folklore of industrial man.

During the 1950s and 1960s, McLuhan diagnosed the contemporary period by drawing historical analogies with previous media revolutions, such as the introduction of writing with the phonetic alphabet into oral Greek society, and of the printing press into European manuscript culture. Iit was however when he commented on the collision between Gutenberg's print galaxy and the electric environment that his ideas provoked the greatest controversy. He challenged the invisible bias of communication upon which he believed Western philosophy rests, concluding that: "[W]e have confused reason with literacy, and rationalism with a single technology" (*Understanding Media* 1964, 15). He warned that

monumental changes comparable to the consequences of the earlier revolutions of writing and print were underway. "By putting our physical bodies inside our extended nervous systems, by means of electric media, we set up a dynamic by which all previous technologies that are mere extensions of hands and feet and teeth and bodily heat controls--all such extensions of our bodies, including cities--will be translated into information systems" (*Understanding Media* 1964, 57). He was one of the first to propose that this new dynamic was driving a revolutionary techno-cultural shift from a mechanical to an information age.

Like the fish in water, he said, we live unconsciously inside a techno-cultural environment that we have made out of our extended senses and bodies. Convinced that awareness of this environment that we had made was both possible and urgently needed, McLuhan thought that he and a very few others--chief among them his University of Toronto senior colleague, Harold Innis, and the Irish writer, James Joyce--had produced work capable of consciously illuminating this terra incognita. From ancient times, media and technology had been taken for granted by most philosophers, scientists, and historians. Now, McLuhan concluded, the job of figuring out what humanity had done to itself through its relationships with its own environmental extensions could begin: "today we have become conscious, for the first time in history, of how these mutations of culture are initiated" (*The Gutenberg Galaxy* 33). The resonance for McLuhan's ideas in the 1960s was indicated most obviously by the sale of more than 100,000 copies of the paperback edition of *Understanding Media* (1964), released in the U.S. in 1965. Response was deeply ambivalent, as evident in the copious and heated commentaries on his ideas in scholarly and general interest publications, and on radio and television during the mid to late 1960s. The titles of collected essays of the period, *McLuhan Hot and Cool* and *McLuhan Pro and Con*, captured the polarized tone of these debates (Molinaro, McLuhan, and Toye 1987, 175). This interest and controversy reached global

proportions. *Understanding Media* was widely reviewed, discussed, and eventually translated into more than 20 languages (Molinaro, McLuhan, and Toye 1987, 176). Previously published, *The Gutenberg Galaxy* (1962) received serious attention and became better known internationally, following the furore surrounding *Understanding Media*. Widespread interest also gave rise to a movement of sorts. In the 1960s, the French coined the term "mcluhanisme" in homage to the man and in reference to "a new cultural stance, a commitment to the serious examination of popular culture," including of course media (McLuhan, Eric 1991; Czitrom 1982).

The briefest glance at the sparse literature on media as an agency of cultural change prior to McLuhan's publications in 1962 and 1964, and the wealth of subsequent books, confirms at once his pioneering status. A literary critic steeped in the humanities, McLuhan's doctoral work had acquainted him with the forgotten curriculum of the educational system of the West, the arts of the trivium (rhetoric, grammar, and logic) and anchored his scholarship in broad familiarity with cultural history. He rejected conventional approaches to the study of mass media within American social science, then dominated by quantitative empirical studies and content analysis. McLuhan's sources in the humanities afforded him a distinctive vantage point on the study of media and technologies within culture and sparked original interpretive approaches that greatly expanded the study of communications and popular culture. It was possible, as he argued for example in 1951, to comprehend advertising not simply as propaganda or capitalist marketing tool, but also as cultural expression, social communication, even artform. In a 1954 letter to the artist Wyndham Lewis, McLuhan articulated this development in his thinking, which he phrased so as to stress the distinction between his work and the outlaw modernist project associated with Lewis, T.S. Eliot, Ezra Pound, and James Joyce: "I have taken in place of abstract art and industrial culture, the new media of communication and their power of metamorphosis" (*Letters* 1954, 245).

McLuhan helped dislodge the understanding of media from its conventional linear confines by expanding the scope of the term's meaning. He did not define, he devised compelling metaphors, phrases, and images, as a kind of counter-environment for apprehending the familiar techno-cultural environment created daily by extensions of human senses and faculties into media and technologies. His focus was not limited to the television medium, although he was deservedly celebrated for saying something new about the impacts of the introduction of this powerful medium. Throughout his career, he was consistently preoccupied with the formulation of the fundamental dynamics animating techno-cultural transformations. He ransacked all of techno-cultural history to exemplify his argument that media and technologies had historically exerted powerful and invisible effects. His ingenious invention of aphorisms, metaphors, analogies, and puns was a cultural event which coincided with glimmering recognition of the possibility that a major shift was occurring from an industrial to an information age.

During the 1970s, the last decade of his career, McLuhan proved to be more interested in theory than previously and declared: "Remember, I have the only communication theory of transformation--all the other theories are theories of transportation only" (*Letters* 1987, 505). He reformulated his work as a new science, claiming Vico and Bacon as intellectual ancestors, while advancing what he called "laws of media." Attentive to history, he was not content to define the new in terms of the old, a mistake he called rear-view mirror thinking. The enduring term, "McLuhanesque", refers to the experimental style of his texts and wordplay by which he helped devise a language and imaginative vocabulary, a new media rhetoric and grammar created so that others might grasp this unfamiliar environment. Above all, as educator and rhetor, he sought to wake up the sleeping public and the somnolent academy; later, he confessed that he felt like the man in the theatre who shouts fire and is accused of arson.

I wish to emphasize a final point by way of introduction. McLuhan completed his

training at Cambridge as a literary critic, not as a researcher in the natural or social sciences. He drew his inspiration from the encyclopedic humanities, steeped in literature, literary criticism, history, classics, and art history. As a highly trained generalist, he included in his domain of inspiration the highest quality insights as he understood them from the social and natural sciences. He announced that he had established a new science of media because he believed that the outcome of his humanist investigations could be truth, not simply art. He championed art as a means to discover truth. If truth be equated narrowly with methodical system, "normal science," or the language of specialists, one will miss McLuhan's point and find little merit in his work. This I believe would be a loss. McLuhan compared his work to that of Claude Bernard, the nineteenth-century father of experimental medicine because, by analogy, he employed his wit and words as probes to explore his subject, like a prose poet performing metaphysical surgery on the collective cultural experience, assessing those experiments that cultures had performed on themselves by introducing new media and technologies. His texts and pronouncements were deliberately designed to encourage his readers to explore the patterned flow of living events, not to fix this flow into a rigor mortis of rear-view mirror thinking. This quality distresses and confuses many readers, and outrages others, a fact that must be acknowledged, but cannot be helped. McLuhan's work is plainly not to all tastes. The large question posed by McLuhan and his work is not whether he was right or wrong. I have concluded, based on the interpretation of his meaning offered in the pages to come, that he was mostly right. But on the evidence, McLuhan's meaning, and the question of whether or not he was right, will always be contested. The questions at stake at this stage of the McLuhan controversy instead concern the relevance of the humanist public intellectual within a specialized academy. The way I propose to address this broad question is to focus in this case study on whether McLuhan's contribution can be coherently formulated, contextualized, and the response to his work and his fragmented

legacy explained.

Rationale and Objectives

This project begins with the observation that the McLuhan controversy presents a series of paradoxes for later commentators, meaning the prolonged co-existence of mutually contradictory readings and interpretations of McLuhan's ideas and appraisals of the significance of his contribution (Jeffrey 1989). McLuhan's influence persists in general cultural terms and his contribution is recognized in the work of a minority of serious communications scholars; yet, simultaneously, his academic reputation is in partial eclipse (ibid., 4). What does it mean that for some the McLuhan of the 1960s sounded like "the most important thinker since Newton, Darwin, Freud, Einstein and Pavlov" (Wolfe), a "post-industrial prophet" (Kuhns), or was "unsurpassed" (Tichi), while to others his work amounted to a "gigantic system of lies" (Miller), "McLuhanacy" (de Mott; Fekete), or "nonsense" (Finkelstein)? How could he represent the possible death of literature to some (West), "the fetishism of technological determinism" (Fekete) to others, and still be a "brilliant encrypter of the technological media" (Kroker) and "important index to our age" (Theall)? The heat of this rhetoric of intellectual controversy clearly signals that something more than conventional scholarly disagreement is taking place.

In the opening section, I have presented a version of the story of McLuhan's significance, a narrative sympathetic to what he said he was doing in his published texts, interviews, and private correspondence. Most critics would concede these cultural events, especially the linkage between McLuhan and a fresh approach to media, while downplaying McLuhan's significance or originality, and attributing quite different motives to his rhetoric and actions. Radically dissonant interpretations and appraisals circulate, a situation that echoes the intense ambivalence of the 1960s. This interpretation proposes an alternative to the orthodox and often negative readings of McLuhan that have

predominated to date, and instead suggests a reading at once attuned to McLuhan's speculative vision and intent on distinguishing the light of his ideas from the heat of controversy. Many academics continue to view McLuhan's brief tenure as an intellectual celebrity with horror, and McLuhanism is for most an epithet. In particular, McLuhan's popularity and willingness to cooperate with popular media have been held against him. A different view is taken here, and an account offered of why the rejection of McLuhan took the form that it did.

William James once complained of the career of a theory that in the first stage, it is "attacked as absurd; then it is admitted to be true, but obvious and insignificant; finally it is seen to be so important that its adversaries claim that they themselves discovered it" (1907, 198; Merton 1972, 21). All these rhetorical and historiographic tactics have been in play in the case of McLuhan, yet the diffusion of his ideas has exhibited a still more complex pattern, because from the beginning all three responses described by James have been paradoxically present in the McLuhan controversy. American communications historian Daniel Czitrom has accurately noted the great difficulty for later commentators in separating McLuhan's ideas from what Czitrom dryly calls "the historical phenomenon of his persona" (1982, 148). To make sense of the paradoxes posed by McLuhan, it is necessary to consider both McLuhan's ideas and the phenomenon of McLuhanism, meaning his status as a celebrated public intellectual and the media-assisted circulation of his ideas. Thus, the investigation must transect cultural and intellectual history and consider ideas as well as the context of their development and reception.

Of course, the paradox of McLuhan is not problematic because some disagree with or find no merit in his ideas. Disagreement is part of the normal practice of pluralist scholarship in the Western human sciences. What commands attention is the dismissive and condescending tone, the distortions that become obvious once McLuhan's work is re-read, and the outright hostility displayed as a characteristic feature of much of the

commentary. These indicators of the overheated rhetoric of intellectual controversy are taken up at length in the chapters to come. For the cultural historian, matters are still more complex because McLuhan's insights also serve as markers for what many observers believe to be a great cultural shift to an information age. There is no consensus on the existence of this shift, just as there is no consensus on the precise impacts of media technologies on cultural change.However, the state of debate is altered in the 1990's and the ridicule that once greeted McLuhan's assertions has subsided somewhat. The argument that there has been no genuine change in the deep structure of the techno-cultural environment from the nineteenth century to the twentieth century, just industrial capitalist business or modernism as usual, now seems less defensible.

Interpretive Framework

The concept of paradox has proven indispensable for this investigation into the controversy surrounding McLuhan. A few of the more significant reasons can be mentioned. Use of paradox as a device for problematizing McLuhan has permitted a simultaneous consideration of contradictory evidence and conflicting opinions. Paradox is non-linear and open to questioning of received wisdom. Rosalie Colie (1966) has demonstrated the longevity of the tradition of paradoxy and notes that historically paradox tends to predominate in times when values and truths are in conflict, such as in the Renaissance. Certainly the 1960s would qualify. There are many types of paradox. Literary or mystical paradox directs attention to a seeming contradiction, which may be resolved in some unexpected unity in the mind of the beholder. Paradox is a device for provoking thought, as with a Zen koan or paradoxical saying. It is the stance of the mind questioning its own operations. A philosophical paradox that initially arouses wonder in the "wonderer" may later become orthodoxy, as did the so-called "Copernican paradox." Within natural science, as Thomas Kuhn has shown, the recognition of paradox as

anomaly may provide a precondition for a significant reorganization of human knowledge. W.V. Quine (1962, 84) touches on a related point in his celebrated essay on paradox: "More than once in history the discovery of paradox has been the occasion for major reconstruction at the foundations of thought." McLuhan appeared to recognize this point in his repeated paraphrase of Bertrand Russell's comment on relativity theory: there was nothing difficult about his and Innis' work, it just required a reorganization of imaginative life.

Colie concludes that paradox functions as more than a figure of speech, rather it functions as a figure of thought. Conceptualizing paradox as figure of thought encourages an approach which successively casts McLuhan as figure against various grounds, so as to interrogate contradictory evidence and thus to inquire into how the controversy took shape. Colie (1966, 7) concludes that paradoxes are self-critical because they question limits: "Operating at the limits of discourse, redirecting thoughtful attention to the faulty or limited structures of thought, paradoxes play back and forth across terminal and categorical boundaries--that is, they play with human understanding, that most serious of all human activities."Poetry and rhetoric, the fundaments of language, are occluded from any human science that disavows ambiguity. Modern science contributed to the decline of the tradition and use of paradox, Colie argues, as logic and the principle of non-contradiction displaced ambiguity and the poetic and rhetorical arts. Poetry and rhetoric, the fundaments of language, are occluded from any human science that disavows ambiguity.

Linking paradox and information science, Klaus Krippendorff (1984) has observed that paradox need not be negative, but rather may prove "morphogenetic" or generative of knowledge and insights. The case of McLuhan and the rhetoric of intellectual controversy surrounding his ideas sheds light on how this phenomenon of the "morphogenetic" or

creative paradox works within intellectual and cultural history. Krippendorff (1984, 46) concludes that morphogenetic paradox "might be a stimulus, if not the stimulus for human cognitive growth...".In terms of this case study, the paradoxical McLuhan becomes an ambiguous figure of intellectual life, a public intellectual whose ideas engendered creative breakthroughs for many while repelling others. Use of paradox permits a critical historiography which recognizes that there may be more than one truth.

The Framezones: Four Cardinal Paradoxes

The major paradoxes posed for later commentators by McLuhan and his ideas have been located readily by tracing the chief areas of public controversy, a task reported in the chapters to follow. These paradoxes revolve around four broad categories: texts, contexts, reception, and legacy. The meaning of McLuhan's texts is essentially contested; the identification of a context or tradition within which his work is most intelligible is in dispute; the response to his work exhibits persistent ambivalence; and his legacy endures in later applications of his insights, yet this legacy is fragmented and decontextualized from his own texts, traditions, and statements about his own intent. Before elaborating on these cardinal paradoxes, let me summarize the interpretive framework devised to organize this report on the investigation.

The body of the text is divided into four chapters, or framezones, which report on the investigations into the cardinal paradoxes.Each chapter is framed by a question that circumscribes the essentially contested nature of McLuhan's texts, contexts, reception, and legacy. The zone defines a particular database or archive of evidence. The framezone format borrows from the literary technique of multiple stories, and is inspired by T.S. Eliot's *Four Quartets* and Lawrence Durell's *Alexandria Quartet* which demonstrate four takes on "the same" event. This technique is displayed to good effect within cultural and

intellectual history in Jancek and Toulmin's (1973) study of the life and thought of Ludwig Wittgenstein in *Wittgenstein's Vienna*, where each of the four sections has its own zone of evidence, requires its own approach, and responds to its own particular line of questioning. A certain duplication is inevitable in this technique, as the zone of evidence or line of questioning may traverse the same terrain in distinctive framezones. Using the paradox and framezone devices, a conventional narrative line can be avoided while maintaining a strong line of argument as the key questions are successively posed. This works as a technique for approaching my paradoxical subject, in that no attempt is made to reduce the problem of McLuhan to a single dimension, nor the investigation to a linear line of argument. Instead, multiple planes of interpretation are endorsed.

The four Chapters present this dissertation's intended original contribution to knowledge: a close reading and comprehensive interpretation of the meaning of McLuhan's texts from the vantage point of the 1990s; an identification of the traditions within which his work seems in retrospect most intelligible; an account of the ambivalent academic and public response to his ideas and persona; and an inquiry into his fragmented yet enduring legacy as traced through applications of his insights into contemporary cultural changes by subsequent researchers. The focus holds throughout on McLuhan's ideas and the phenomenon of McLuhanism, as the question of his contribution is continuously reframed. At times the report zooms into a closeup microscopic view, carefully examining the rhetoric of McLuhan or his commentators. Alternatively it is necessary to zoom out to a wideshot, trying to make sense of the nature of the debates, the key themes advanced by McLuhan, and significant counter-themes put forward by his critics and allies. Always the focus returns to McLuhan. Having traversed these four dimensions of the McLuhan paradox, the concluding section summarizes this reappraisal of his contribution and reseams the received narrative on his significance.

Leaving the detail for the chapters to follow, I will now summarize the questions

framing the zones of information and highlight those resources unavailable to most commentators prior to the 1990s, before elaborating on the theoretical and methodological considerations that have guied this investigation.

Chapter 1 presents the paradox of McLuhan's texts by interrogating his core meaning. What was he saying as his thinking evolved over the course of his career? Answering such a question requires a genetic approach that teases out the phases of development of his chief themes, and compares his published texts with papers unpublished during his lifetime. Also required is attention to his strategies of production and the rhetoric of assertion in his textual production. Previously unavailable texts and other materials exist on which to draw for this reinterpretation of McLuhan's contribution. These sources encompass McLuhan's private papers which were acquired by the National Archives of Canada and made publicly available in the late 1980s, including his unpublished 1943 Cambridge doctoral dissertation; numerous letters, some of which have been published with insightful editorial comments (Molinaro, McLuhan and Toye 1987); lesser-known essays, some published, some unpublished; interviews with key associates conducted by Derrick de Kerckhove (1983) after McLuhan's death; the first full biography, by journalist Philip Marchand (1989), who drew upon his work cataloguing the McLuhan papers for the National Archives and selective interviews; the appearance of two posthumous books, *Laws of Media* co-authored with Eric McLuhan (1988) and *The Global Village* co-authored with Bruce Powers (1989); and a wealth of commentary, anecdote and original writing, along with rare audio visual material packaged for educational use by Stephanie McLuhan in 1995.

Because McLuhan continually rehearsed his ideas in the backstage of his private correspondence and conversations, this archival material permits a retracing of the development of his thinking. I divide his textual production into key phases. The close thematic reading reported in Chapter 1 interprets McLuhan's core theory of

communications as a theory of techno-cultural transformation, in sharp contrast to the orthodox reduction of McLuhan's work to "hard" technological determinism. I name McLuhan's theoretical contribution "mediamorphosis" in order to emphasize the significance of his contribution to understanding the general dynamics of historical human relationships with their extensions into techno-cultural environments. The term is borrowed from ethnomusicologist Kurt Blaukopf (1989), and greatly expanded to match the scope of McLuhan's original expansion of the term media, as will be explained in Chapter 1. This document does not aim to resolve the question of whether McLuhan was right or wrong, as indicated previously, but tries instead in this chapter to reformulate the core themata of his developing theory of communications. The intent is to encourage a fuller appreciation of McLuhan's contribution and to inspire further exploration along lines he suggested.

Chapter 2 presents the paradox of McLuhan's contexts and raises the question as to the traditions within which his ideas now seem most intelligible. It is necessary to answer this question in order to appreciate McLuhan's contribution, and yet this cannot be framed as a narrow disciplinary question, to be answered by fitting McLuhan's ideas into a preconstructed box. If so, McLuhan's contribution to the emergence of a new tradition would be occluded. As approached here the question becomes one of tradition and the individual talent, the title of a celebrated essay by T.S. Eliot (1919), with the stress not on what was received from the past, so much as what the talent did with what he received. Tradition is explored in a plenary sense along biographical, national, intellectual, and disciplinary lines. Mindful of the need to distinguish McLuhan's ideas from his cultural significance as a phenomenon, answering this question also requires selectively examining the rhetorical and sociological communities in which McLuhan was located, and in which he placed himself, and probing his relationship with the ideas of others, especially Innis and Havelock, and with key allies and critics who operated in similar intellectual territory.

The thesis in Chapter 2 is that McLuhan's work can be best understood once situated within the tradition which emerged out of the Toronto School of Communications, which had its genesis in the conjunction of McLuhan, Harold Innis and Eric Havelock at the University of Toronto. This emergent tradition has been called variously communications history (Heyer 1988, Jeffrey 1989), medium theory (Meyrowitz 1984), media theory (Czitrom 1982), and comparative media theory (Angus 1991). By whatever name, the emergent tradition has reached a certain maturity as indicated by the number of authors who appropriate the work of McLuhan, or adopt his reading of Innis. In light of these diverse interpretations of the emergent tradition and its roots, it is timely to reexamine McLuhan's pioneering contribution. I conclude that there are qualified grounds for speaking of a Toronto School and locating in this conjunction the impetus for the emergent tradition. Broadly speaking, communications history has taken as its subject the transformative impacts of technologies, notably communications media, upon culture, and has raised macro-, meso-, and micro-historical questions about changing forms of social, political, economic, aesthetic, and sensory organization by inquiring into a broad range of phenomena at the intersection of culture and technology. Major research areas have included the orality and literacy thesis, the impacts of the printing press, and the effects of electronic media since the telegraph. Succinctly, the tradition argues that changes in dominant media and technologies result in revolutionary transformations in the conditions or ground for cultural life. Communications history has scattered antecedents but no direct precedents. To this day it remains unsystematic, not a "school" in the conventional sense (Tiriyakian 1979), yet, as an intellectual impulse, the tradition has opened new horizons. One issue that will be addressed in Chapter 2 concerns the tactics of appropriation and rhetorical rejection of McLuhan practiced by two direct heirs to McLuhan's legacy, his former student Walter Ong, and historian, Elizabeth Eisenstein.

The "maturity" of the communications history tradition--and the "Toronto School" out

of which it emerged--is historiographic as well as textual, meaning that various stories about the genesis and significance of this tradition circulate. Two important accounts that appeared in the 1980s are Daniel Czitrom's *Media and the American Mind* (1982), and Paul Heyer's *Communications and History* (1988). I will both endorse and quarrel with these historiographic narratives, by affirming the importance of the tradition described by these authors, while rejecting the narrowing of McLuhan's contribution as embedded in the description "media theory" (Czitrom 1982). I will also challenge the dismissive version of McLuhan's role in the origination of the communications history tradition that is presented in both accounts. The evidence appears to sustain the recognition that a fresh approach to communications history, as argued by Patterson (1990), emerged in the conjunction of Innis and McLuhan. There are also reasons for concluding with Arthur Kroker (1984) that Canada provides fertile ground for the emergence of innovative communication theory. Reflection on the founding moment of the Toronto School of Communications and the conjunction of Innis, Havelock, and McLuhan, provides one way to restore the necessary context for comprehension of McLuhan's contribution.

Immediately a question arises. Why has the tradition of communications history been so curiously fragmented? By this I mean that the respective insights of Innis and especially McLuhan have been widely and diversely incorporated in scholarly and popular texts, often with little regard for the sense of the original work. Part of the answer lies in the marginal position of Canada and the University of Toronto within the world's intellectual life; (particularly in the 1950's and 1960's) but another part seems to consist in the contorted response to McLuhan and his work and the often incredible animus displayed in the rhetoric of intellectual controversy surrounding McLuhan's expression of his ideas. This response was and is as prevalent at the University of Toronto as elsewhere. McLuhan called world attention to Innis's then obscure later work on communications when he forcefully placed the Toronto School approach on the public and scholarly agenda. He

instantly recognized and announced in 1964 the parallels between his and Innis' discoveries and those published by Havelock in *Preface to Plato* (1963). A partial answer to this question of how an original line of thinking was so widely appropriated yet decontextualized from its origins thus must be sought in the ambivalent rhetoric of response to McLuhan's work. If heat is to be distinguished from light, as I intend, it is necessary to revisit the controversy that has occluded full recognition of McLuhan's relevance for communications scholarship.

Chapter 3 takes up this paradox of response, which involves raising the question of the meaning of the heated response provoked by McLuhan's ideas. What underlies the deep split and curious linkages between popular and academic reception? Answering this question requires identification of the thematic patterns evident in the rhetoric of intellectual controversy surrounding his ideas and persona. More than thirty years later, it is time to re-examine the quarrels that culminated in what I call the "forging of a negative academic consensus" on McLuhan's work and persona by 1975. This is accomplished by analyzing the rhetoric of response and diagnosing the key counter-themes advanced in the rhetoric of rejection of McLuhan's work beginning in the "Molten" period of response during the 1960s, and ending with the "Revival" phase of the early 1990s. This analysis of the rhetoric of intellectual controversy surrounding McLuhan is followed by an analysis of the contributions of four key architects of this negative academic consensus: James Carey, Donald Theall, Raymond Williams, and Jonathan Miller. I conclude that McLuhan's ideas were rejected for the wrong reasons and that the "interdiscipline" of communications (Littlejohn 1979) has been impoverished by its rejection and selective appropriation of McLuhan's insights.

Answering the question of reception also requires attending to clues indicating underlying structural shifts in the major institutions that diffuse innovative ideas and elucidating the struggle between the academy and the media for influence and authority.

The academy's negative consensus on McLuhan proved unstable, just as the attempted monopoly of knowledge by the academy over understanding media proved untenable. Ambivalence lingers.However, in the 1990s a Revival phase is underway for McLuhan and his work. The heated debates over themes McLuhan introduced continue to rage even as the evolution of media forms accelerates. McLuhanesque themes have become metaphors by which we live, still contested but now constituents of the fabric of twentieth-century thought. They have not yet been replaced, as may be witnessed in the frequency and variety of their occurrence in popular and scholarly discussion. There is broad if often begrudging recognition of McLuhan's seminal role in expanding the popular and scholarly imagination on media and techno-cultural change by adding vivid phrases to the vocabulary. Yet to repeat, frequently his contribution to these debates seems reduced to one-liners, ripped from context, often seriously distorting his meaning. I believe much of value for present debates has been lost in this process of fragmentation and decontextualization, and will argue that this process is a direct consequence of the rhetorical tactics practised in the rejection of his work and persona. The media ensured that the academy could not completely excommunicate McLuhan, and prevented it from sustaining its monopoly of knowledge; yet the academy had the power to ensure that--like Lewis Carroll's Humpty Dumpty--McLuhan's contribution would be forever fragmented.

Chapter 4 inquires into the paradox of McLuhan's legacy, which involves raising the question of how his work proved relevant to later research applications. I have elected to explore whether his ideas were found to be fertile or sterile by examining the work of researchers who explicitly extended McLuhan's diagnosis of the techno-cultural transformations accompanying the introduction of television and post-television media. By tracing the uses of McLuhan in a broad spectrum of works by authors including Patricia Greenfield, Jane Healey, Joshua Meyrowitz, Cecelia Tichi, Paul Levinson, Neil Postman, Richard Lanham, Derrick de Kerckhove, and Robert Logan, the fertility of McLuhan's

legacy is established, and his paradoxically fragmented and lasting legacy probed.

In the Conclusion, the question posed is how should the received narrative on McLuhan be reseamed in light of the four-part investigation. I contend that McLuhan is most coherently interpreted as a theorist of techno-cultural transformation or mediamorphosis, a pioneer whose work is most intelligible within the communications history tradition that emerged out of the Toronto School of Communication, a public intellectual whose ideas and perceived threat provoked ambivalent responses pro and con, which led to the forging of a negative academic consensus which in turn contributed to the occlusion, the decontextualization, and ultimately the fragmentation of McLuhan's ideas from his own work and tradition. His legacy demonstrates the profound and lasting inspiration he offers for later researchers despite the academic rejection, while also confirming the fragmentary and distorted results of the negative consensus. Read whole and on his terms, my thesis is that McLuhan's work points in the direction of a techno-cultural hermeneutics, an unexhausted art and science of interpreting the impacts of media and technologies on literacies, sensibilities, and culture. How we make collective sense of the world is deeply implicated in the ways we shape our understanding by extending ourselves through our media and technologies into environments we then inhabit and daily remake. In offering recommendations for further research, the discussion returns to the relevance of McLuhan's contribution for contemporary problems. His profound insights into the power and dynamics of media forms did not blind him to the power of societies and individuals to act on their knowledge, to shape environments, and devise counter environments. As he put this: "Nothing is inevitable so long as we are prepared to pay attention." His senior colleague, the political economist and historian, Harold Innis, was deeply preoccupied with questions of power and what he called "monopolies of knowledge." As founding figures within the emergent tradition of communications history, the work of Innis and McLuhan are indelibly linked. It is in the conjunction of the two that

I believe the most promising extension is possible of McLuhan's theories of communications as techno-cultural transformation.

Theoretical and Methodological Considerations

Now that I have set out the paradoxes of McLuhan as a set of questions, and explained the direction and interpretive framework, I will elaborate on the theoretical and methodological considerations that have guided this investigation.

Four traditions have been combined in this approach to the paradoxes of McLuhan: hermeneutics, rhetoric, historiography, and a less easily labelled amalgam that might be called "cultural history of knowledge production." The latter, I suggest, draws together history and sociology of science (particularly the work of Thomas Kuhn, Gerald Holton, and Bruno Latour), and cultural anthropology (Clifford Geertz) into an approach to cultural and intellectual history focused on the study of intellectuals, their ideas and communities, the production of texts, and the circulation within communications networks of these texts to audiences of fellow intellectuals and the general public. Let me now introduce the meaning that each of these traditions has for this investigation and the key concepts that have proven most directly applicable to advancing the objectives of this investigation.

"The Heat and the Light" is a hermeneutic study because in approach it is a multi-dimensional interpretation which takes McLuhan's paradoxes seriously. In order to elucidate the significance of McLuhan's substantive contribution to communications theory, this project requires the sophisticated approach of hermeneutics--defined usefully by George Steiner (1992) as "the understanding of understanding"--with its sustained attention to the ground of human understanding, knowledge, and experience. Hans Georg Gadamer's *Truth and Method* (1992) has provided background inspiration for this project by lending philosophical weight to the reconstitution of hermeneutics within the human

sciences as an alternative to exclusive truth claims based on the methods of the natural sciences. Charles Taylor signalled the centrality of these issues in his essay "Interpretation and the sciences of man" (1985). Let me briefly clarify. McLuhan's contribution to the understanding of understanding lies in his recognition of the power of the forms of media and technologies to ground knowledge, experience, and understanding. I contend that this contribution significantly extends the range of hermeneutics within the human sciences, by making explicit the transformative impacts of media and technologies on thought, experience, and on all of cultural expression and artefacts. Innis' "bias of communications" and McLuhan's "laws of media" and theory of mediamorphosis add a fresh dimension to hermeneutics by calling into question all print-induced biases.

Rhetoric makes up the second major strand. The analysis of rhetoric--taken broadly as the way words are used and texts created to teach, please and move audiences, or more narrowly as the ensemble of tactics practised within the spoken and written arts of persuasive communications--becomes a method for elucidating the changing ground of debates in which McLuhan and McLuhanism figure. The investigation focuses on the rhetoric of intellectual controversy surrounding McLuhan's ideas and persona. Following suggestions by Gerald Holton, which will be explicated at length in Chapter 3, I conduct an analysis of the texts of the controversialists, beginning in Chapter 1 with McLuhan's strategic assertion of his ideas in his texts, followed by the equally strategic responses in the texts of key allies and critics in Chapters 2 and 3. This investigation is closely aligned with the "rhetoric of inquiry" project summarized by Nelson, Megill, and McCloskey in a collection of essays entitled *The Rhetoric of the Human Sciences* (1987). Their research concerns the rhetoric of argument in scholarship and public affairs: "In matters from mathematical proof to literary criticism, scholars write rhetorically" (1987, 3). They point out that rhetoric, in the ancient sense of persuasive discourse, has been the preserve of literary critics, theorists of communication, and teachers of composition and public

speaking. In the twentieth century, rhetoric has found its "main academic home in communication studies" (ibid.). The rhetoric of inquiry project seeks to broaden the study of rhetoric across conventional disciplines, and encourages scholars to conduct investigations into the art of persuasive discourse within their home disciplines. This case study in the rhetoric of intellectual controversy is a response to that call. The methods employed by the rhetoric of inquiry project consist of close reading, retracing of themes synchronically and diachronically, and the formulation of interpretive hypotheses as to how language and textual strategies are used to reach and convince audiences and to build communities. Most working within this tradition avoid technical terminology, a practice that is adopted here.

Third, the investigation takes a critical historiographic approach by suspending the official stories on McLuhan's significance, and instead vivisecting and reinterpreting the accounts of the controversy. For this reason a review of the literature does not appear in this introductory chapter, because what counts as literature is itself part of the dispute. In Chapter 2, by inquiring into the traditions within and against which the individual talent of McLuhan developed, and by probing the multiple communities (rhetorical and sociological) with which he was aligned, his work can be located within a context where it is most intelligible. In Chapter 3, the phases of response to McLuhan are retraced and the fundamental thematic conflicts analysed. For this task, historiography is preferred over quantitative analysis, contra Diana Crane's (1972) proposed sociology of culture for example, because counting bibliographic citations as she recommended is not helpful in elucidating McLuhan's significance. For one thing, he is so well known, even iconic, that he is frequently mentioned *en passant*, without bibliographic reference. For another, mention of McLuhan often takes the form of prose shorthand, the academic equivalent of a wink, or sneer, intended to gesture at a whole complex of themes involving new media and technologies, notably television, innovative styles of theorizing popular culture, and

vast cultural changes, typically identified with the 1960s. For example, the normally careful literary critic Frederic Jameson (1981, 25) casually misspells McLuhan's name when he writes of "that technological determinism of which MacLuhanism [sic] remains the most interesting contemporary expression." Furthermore, this investigation is too focused on an individual intellectual to benefit from sociology's traditional preoccupation with groups. McLuhan did not found a school in the sociological sense (Tiriyakian 1979), and thus had few academic insiders able to come to his defense. The paradoxically multiple stories or histories that circulate about McLuhan, his tradition and his contribution, lend themselves to critical reappraisal by means of interrogation between the lines of the conflicting "histories" of McLuhan, behind the commitments of their author/participants.

In *Persuading Science: The Art of Scientific Rhetoric* (1991), editors Pera and Shea make two relevant points. First, they draw an explicit link between rhetoric and historiography: "By accepting the role that rhetoric plays in science, we abandon a certain triumphalist historiography that saw progress as the application of a rigorously objective method of enquiry" (ibid., x). The result is a renewed awareness of the role of both historiography and rhetoric--as opposed to, or in addition to, the "objective" methods of natural sciences such as physics--in the enforcement and validation of claims made during the intellectual controversies conducted by communities of scientists and scholars. Second, they note that "rhetoric is the instrument that furthers the continuous exchange between individuals and the broader community to which they belong. It provides the rules of the game" (1991, x). Thus rhetoric plays a part in asserting norms and in restricting how truth claims are assessed. These aspects are central to this rhetoric of inquiry approach. The fourth theoretical and methodological strand situates this investigation within a cultural history of knowledge production. The investigation interprets texts with their competing rhetorics and rival historiographies, while remaining aware that texts,

rhetoric, and stories are produced by historical communities of controversialists. Inspired by Clifford Geertz's cultural anthropology and ethnographic and reflexive methods, McLuhan can be studied as intellectual among intellectuals, as one would scrutinize a particular member of a text-making, idea-generating and knowledge-producing tribe. Geertz has recommended that communities of intellectuals be studied within their "invisible colleges" or "intellectual villages" on the premise that "most effective academic communities are not that much larger than most peasant villages and just about as ingrown" (1983, 157). But of course this presumes that the intellectual does not become a public figure, and instead remains within a specialist community. The link provided by Latour (1987) to this theoretical strand concerns response, and the networks of communities and communications that make modern intellectual practice possible. What do intellectuals do? They write, speak, lecture, and use media to communicate. They do things with words and ideas in communications networks. When communications media and networks change, intellectual life is altered. This retrospective case study of the McLuhan controversy presents a largely textual and rhetorical analysis of how a mostly unconnected community of intellectuals did things rhetorically, against a backdrop of cultural events, including the growth of power and influence in the popular media. The primary interest lies in the exchanges, the rhetoric of intellectual controversy. In its case study of McLuhan, "The Heat and The Light" interprets the way words are used to assert, incorporate, reject, persuade, communicate discoveries, enforce, and build traditions and disciplines. Latour valuably insists on looking at what actually happens in the scientific or intellectual communities within which an individual's work has meaning. His emphasis on rhetoric and networks, and the significance of the response to new ideas in determining their fate will be echoed.

Gerald Holton's work provides a guiding influence for the entire project, because he has reflected on the phases of ideation by individual (scientific) innovators, links

biography, autobiography, and thematic orientations, and provides key conceptual tools for dissecting rhetorical controversies. Holton describes his investigative attitude as "analogous to that of a folklorist or anthropologist who listens to the epic stories for their underlying thematic structure and recurrences" (1973, 331). In *The Thematic Origins of Scientific Thought* (1973), Holton develops the conceptual tool "themata", which he describes as general conceptual themes, or worldviews, more or less conscious, a kind of background or climate of thought. As displayed in the work of individual scientists, themata are like "prejudices" (Holton 1972, xiii), which are not verifiable or falsifiable (1973, 23). They are "the unknown or unconfessed preconceptions and suppositions which are at the base of every major contribution" (ibid.). An ancient example with modern currency would be a commitment in principle to themata of continuity or discontinuity, which may lead a scientist to accept or reject theories and evidence. Professional twentieth-century historians--as Eisenstein (1979) has observed--have a similar predisposition for or (mostly) against the idea of revolutionary or abrupt change or discontinuity.

For the attentive investigator, themata are revealed in the rhetoric through which scientists express their ideas, both in carefully crafted papers for publication, and at less guarded moments in their private writings. Holton argues that due to the scientific prejudice against attention to rhetoric, the professional practice is to make publications look inevitable, as Louis Pasteur put it (1991, 176). Throughout his studies of pioneering scientists, notably Alfred Einstein and Niels Bohr, Holton calls attention to the nascent moments when an innovator is engaged in rhetorical formulation of discoveries for purposes of persuasion, the points at which scientific originators privately weighed the persuasiveness of their ideas to themselves. The presentation of these ideas in published papers is analysed in terms of the rhetoric of assertion, so as to get behind the apparent "inevitability" of the scientific prose. Geertz used the concept of "textwork" in *Works and*

Lives: The Anthropologist as Author (1988) to investigate a similar process. Geertz studied the distinctive strategies of rhetorical production which influential anthropologists employed in composing their ethnographic texts out of a "large number of highly specific cultural details" and thus how they attempted to persuade their readers (1975, 3).

Holton argues that "the awareness of themata which are sometimes held with obstinate loyalty helps one to explain the character of the discussion between antagonists far better than do scientific content and social surroundings alone" (ibid.). Cases of controversy, continues Holton, are especially amenable to thematic analysis, because during controversies or "marked advances beyond the level of common work" antithetical themata are often linked and visible in the vigorous disputes. Themata can be seen to play a major, but not exclusive role in the initiation and acceptance or rejection of key scientific insights by the wider community (1975). In his case study of innovations in papers by Bohr and Einstein, for example, Holton's point is that often the contests were over thematic commitments, that is on grounds such as continuity or discontinuity that cannot be verified empirically or deductively but rather seem to reflect conflicts over fundamental worldviews. Following Geertz, one way to trace themata is to attend to those "key terms that seem, when their meaning is unpacked, to light up a whole way of going at the world" and which operate within "mutually reinforcing networks of social understandings" (1983, 156-57). Latour emphasizes networks and the active response of intellectual communities in shaping the acceptance or rejection of discoveries, ideas, and theories by their responses. In *The Structure of Scientific Revolutions*, Kuhn demonstrated one way in which major controversies might be analysed: as discontinuous revolutions, or paradigm shifts. Holton prefers to stress themata and continuity. Latour, Kuhn and Holton specialise in the study of the natural sciences and thus enjoy an advantage over historians of the human sciences and humanities because the issue of validity is settled eventually by rigorously enforced intersubjective consent within specialist communities. Historians and

interpreters of the human sciences must acknowledge the pluralist coexistence of competing paradigms, theories, and schools, and account for the fashions, factions, and ongoing debates which characterize the arts, humanities and social sciences.

Holton next crucial insight for the project is the concept of the rhetorical space:

> Since thematic commitments are not always consciously held, we are therefore often forced into a quasi-archaeological task: to dig below the visible landscape of a controversy in order to find the usually invisible but highly motivating matches, mismatches, and clashes between the respective sets of themata that have been adopted by the various participants - and not only of the individual themata, but also of constellations of them that define the locally held scientific world pictures. Such correspondences and conflicts can be considered as interactions among contesting claimants in what Michel Foucault has termed "rhetorical space." (1991, 177)

The essential working concepts for this case study are oriented around this "rhetorical space" where McLuhan's themata and his critics' counter-themata meet in a dynamic context of interaction between what Holton calls "rhetorics of assertion" and "rhetorics of appropriation or rejection" (1991, 176). The rhetoric of assertion, which will be considered in Chapter 1, includes the published presentation of major new ideas, supplemented by attention to private or popular writings in which these themata may be explicit. Chapter 2 considers the intellectual tribe, village, and community within which the breakthroughs take place, and explores the nature of the affiliations and networks known as the Toronto School of Communications. The rhetoric of appropriation/rejection, probed in Chapters 2 and 3, is considered in the published response to the new ideas. Once elucidated from the texts of supporters and critics, Holton regards thematic commitments as crucial indexes to the rhetorical space in which scientific disagreements occur (ibid.).

Holton's work suggests that taking the paradox of McLuhan seriously means not reducing it to either pro or con, or even right or wrong, but rather finding a way to probe

the assertions of McLuhan and the responses of his critics against a wider backdrop. Adapting these working conceptual tools to the objectives of this study, the task is to scrutinize the texts of McLuhan and his commentators, highlighting for examination those critics whose opinions on McLuhan were widely cited by others, and whose criticism can be seen as typical of as well as contributing to the rhetoric of rejection of McLuhan's contribution. Primary attention is directed to the rhetorical space in which McLuhan's rhetoric of assertion met a rhetoric of appropriation/rejection and to identification of the themata at play in this rhetorical space.

To return to the question of McLuhan as intellectual figure, the circulation of McLuhan's ideas within the general public sphere accessible via mass media requires that attention be paid to the language of the controversy, particularly the use of metaphors and other indicators of themata in play. Lakoff and Johnson, in their discussion of "metaphors we live by," distinguish conventional metaphors from "metaphors that are outside our conventional conceptual system, metaphors that are imaginative and creative" (1980,139). They argue further that "much of cultural change arises from the introduction of new metaphorical concepts and the loss of old ones" (ibid.,145). Their premise is that "New metaphors have the power to create a new reality" (ibid.). In the wake of their introduction these metaphors create a new imaginative and sensory reality, and a new way through which we make our world in common. There is a similarity between this concept and Krippendorff's notion of the "morphogenetic" paradox mentioned above.[1] Debates over Thomas Kuhn's inquiry into the structure of scientific revolutions serve as a kind of backdrop for this discussion as I wrestle implicitly with some of the problems posed by his notion of paradigm shifts for the human sciences in relation to McLuhan's insights.

One way to get at these issues is through Holton's notion of the thematic or scientific imagination (which he prefers to the older term "worldview"). Holton takes the view that scientists share "something like a scientific imagination" (xiii; 1973, 12) which he calls the

"thematic imagination" (1973). To speak of imagination is a vague but necessary way of attempting to speak about the climate or ground of thought of a period. If one accepts that language shapes and guides thought, then what grounds language? That is part of the question to which McLuhan's work forms a response.

By the end of his career, McLuhan as an individual talent and public intellectual wanted to establish a new science by advancing a general theory about the dynamic ratios of sensory and spatial perception in contact with changing artefact forms, and by diagnosing how this new world worked and what forces had given birth to it out of the old. McLuhan had not invented this new reality, and continually expressed surprise that many of his most severe critics blamed him for it. McLuhan believed that only when the techno-cultural horizon had shifted was it possible to see the dynamics of formerly dominant media in operation. Thus his, and Innis', sweeping diagnosis of the effects of the printing press was possible because the "Gutenberg galaxy" was on the wane. The sources of new themata, new worldviews might then be located in relationships with new dominant media. This constitutes McLuhan's techo-cultural hermeneutics, his attempt to understand how collective understanding itself changes along with the common sense and the ground of culture in historically shifting human relationships with media and technologies. The significance of the paradoxical McLuhan lies in the creative and morphogenetic power of his metaphors and the scope of his ideas as he wrestled with this problem. The conclusion of this investigation is that if he is read on his own terms, McLuhan's insights into the cultural transformations resulting from new media and technologies can illuminate a wide array of historical and contemporary developments.

Chapter 1: The Paradox of McLuhan's Texts

"... I have taken in place of abstract art and industrial culture, the new media of communication and their power of metamorphosis."
Letter to Wyndham Lewis, 1954 (*Letters* 1987, 245)

Part 1: The Phases of Intellectual Production

Framework

Chapter 1 presents the results of an investigation into the paradox of the contested meaning of McLuhan's texts. While some have dismissed his work as a form of "technological determinism" (Carey 1967), "nonsense" (Finkelstein 1968), "lies" (Miller 1971), or "McLuhanacy" (Fekete 1977), others have rejected these interpretations, as did McLuhan himself. Chapter 1 takes as its archival Chapter McLuhan's texts from the first publication in 1936 to the last, posthumous collaboration published in 1989. The overarching question framing this Chapter concerns the core meaning of his works as he wrestled to express his insights. Because McLuhan's textwork is complex, fluid, and open to multiple interpretations, I employ a close reading and reformulation of his themes in order to provide a coherent exegesis that balances the parts in relation to the whole of his corpus. Following Holton and the rhetoric of inquiry approach, I probe McLuhan's rhetoric of assertion, in terms of what he said and why he said it as he did. My approach is also genetic, in that the origins, development, and continual refinement of McLuhan's core themes over his lengthy career have been retraced.

This close reading and genetic interpretation refutes the common characterization of McLuhan's work as a type of "technological determinism." Instead it supports McLuhan's 1974 summary statement of his contribution which he called a "communication theory of transformation" (*Letters* 1987, 505.) Others have identified this key theme in McLuhan's work, including Eric Havelock (1986, 27). Francesco Guardiani has observed that "the theory of cultural transformation was expounded by Marshall McLuhan in every single one of his books" (1991, 144). Without exception,

(1991) share awareness of this thematic coherence. This is not surprising as they are among McLuhan's closest students and include inner circle members, Eric McLuhan and Barrington Nevitt, and members of the extended circle who collaborated with McLuhan at the University of Toronto during his lifetime, Derrick de Kerckhove and Robert Logan. However, no one has yet prepared a full exposition of the development of themata associated with the theory of cultural transformation in McLuhan's work. Some dispute that he was doing theory, a point to be addressed in Part 2 of this chapter. Nor has sufficient attention been paid to McLuhan's contribution to a theory of communications as "techno-cultural" and not simply "cultural" transformation, a dual emphasis that signals the significance of his achievement at the University of Toronto's Centre for Culture and Technology. Nor in my view has the linkage between McLuhan's contribution and that of his fellow pioneer in the Toronto School of Communications, Harold Innis, been explored adequately. Such an extensive and nuanced account is required to appreciate McLuhan's significance, and Chapter 1 is dedicated to these tasks.

There are numerous advantages in taking a historical, hermeneutic and rhetorical approach to McLuhan's texts and strategies of intellectual production. Such a tactic assists in reappraising the relationship between the work of McLuhan and Innis. Tracing the development of his core themes shows how McLuhan's interest in the topic of communications as transformation preceded his contact with Innis, and permitted him to appreciate and publicize Innis's pioneering contribution upon first exposure. This allows a preliminary statement of the importance of Innis's work in aiding McLuhan to recognize his own subject and how to tackle it more effectively than his literary training would allow. Chapter 2 continues this inquiry into the conjunction.

This approach helps to navigate through McLuhan's massive textual corpus. The Herbert Marshall McLuhan Foundation estimates that he produced 600 articles, 75,000 letters, thirteen books, and hundreds of hours of audio and video tapes (*McLuhan Studies* 1991).[1] Coherent exegesis is thus a daunting undertaking. Following Holton, and in keeping with a genetic approach, in order to follow the development of McLuhan's ideas,

his work is divided into major phases in his thinking and production. (See illustration 1.) Five distinctive phases of production can be identified: the Early Phase up to 1951 when his first book, *The Mechanical Bride*, is published; the Explorations Phase up to 1960, when he completes the unpublished *Report on Project in Understanding the New Media*; the Catalyst Phase from 1960 to 1970, which includes the zenith of his celebrity and publication of his best known books, *The Gutenberg Galaxy* (1962) and *Understanding Media* (1964); the Last Decade from roughly 1970 to his death on the 31st of December 1980; and the Afterlife Decade, when two posthumous books, several essays, and a collection of his letters appear.[2] Most critics have focused on the period of McLuhan's fame, and later commentators sometimes mistakenly assume that there was no further extension of his ideas. Others erroneously believe that McLuhan came late to the study of communications, that he was a derivative student of Innis, or attribute some of his major ideas to his former student, Walter Ong. It is part of Chapter 1's task to correct these inaccuracies, without however obscuring the fact that it is the McLuhan of the 1960s whose work exerted a global impact and put the topic of media on the public and intellectual agenda, a McLuhan who repays his debt to Innis's pioneering achievement by acknowledging, promoting, and interpreting it, and by inspiring many others, including Ong, to make their own contributions.

This genetic approach and division into phases is particularly important in comprehending the genesis of the "laws of media". It is possible to observe, for example, that in the Last Decade of his intellectual production, during the 1970s, McLuhan is fully aware that his work has been rejected by most Anglo-American academics, although he believes Continental writers to be more sympathetic. This (and other evidence reported below) provides important background for understanding why he considers it important to develop a "new science." Up until 1970, McLuhan's rhetoric indicates greater concern with discovery than justification, on the principle "I explore, I don't explain." During the Last Decade, however, McLuhan begins to articulate his discoveries from a fresh angle in an attempt, as he said, "to invite criticism, directed not at me or my rhetoric, but rather

Illustration 1

Phases of McLuhan's Intellectual Production

DATE	PHASE		KEY EVENTS/PUBLICATIONS
1930s	EARLY	1936	"G.K. Chesterton: A Practical Mystic"
		1937	Conversion to Catholicism
1940s		1943	Ph.D. Thesis "The Place Of Thomas Nashe In The Learning Of His Time"
1950s	EXPLORATIONS	1951	*The Mechanical Bride*
		1953-55	Ford Foundation Seminar *
		1953-59	*Explorations* Journal *
		1954	*Counterblast*
		1959-60	*Report On Project In Understanding New Media*
1960s	CATALYST	1962	*The Gutenberg Galaxy*
		1964	*Understanding Media*
			Voices of Literature Vol.1,2 *
		1967	*The Medium is the Massage* * +
		1968	*War and Peace in the Global Village* * +
		1969	*Counterblast* * +
1970s	LAST DECADE	1970	*Culture is Our Business*
			Cliche to Archetype *
		1972	*Take Today* *
		1975	"Laws of the Media"
		1977	*City As Classroom* *
		1980	McLuhan's Death
1980s	AFTERLIFE DECADE	1987	*Letters* (Edited Collection)
		1988	*Laws Of Media* *
		1989	*Global Village* *

* Collaborations

+ With Graphic Designer

at the content and substance of my thought" (1975, 74). A genetic approach also helps to illuminate how he resolves various tensions in his formulations, moving (so I will argue) away from an organic and diachronic formalism in the works of the 1960s, towards a metamorphic and synchronic formalism in the works of the 1970s. By formalism I mean unpejoratively attention to form, pattern, and structure, in contrast to a focus on content and detail. In parallel with this shift from an emphasis on history to simultaneity, his penchant for dualisms--evident in the formulation of hot and cool media during the 1960s and discovery of the significance for his work of right and left brain hemispheres in the 1970s--deepens during the Last Decade into further work with four-part analogical ratios, into figure/ground analysis, and finally into the tetrad.

Above all, such an approach permits the foregrounding of textual evidence in support of the refutation of the conventional reduction of McLuhan's work to a form of hard technological determinism (Carey 1967), a pernicious misinterpretation that has distorted the reception for McLuhan's insights.

Approached in this way, the central thread running through his texts and interviews becomes clearly intelligible: a theory of communications as techno-cultural transformation throughout human history. To highlight the significance of McLuhan's theory I have called it "mediamorphosis" and thus expanded a term introduced by Blaukopf (1989). McLuhan's rhetorical assertions offer thematic variations on the insight that when dominant media and technologies change, all aspects of cultures and sensibilities are transformed. This is not a "medium" theory, because such a description would unduly emphasize one aspect of the interaction; instead, the term "mediamorphosis" calls attention to the significance for McLuhan's theory of the dynamic and historical relationships between culture and technology, and between media and sensoria. Once grasped, this thread becomes a guide to the labyrinth of his work, so that his migrating formulations disclose deepening insight, rather than contradiction. For example, and quoting McLuhan: the medium is the message, the medium is the massage, the user is the content, the meaning is the relationship. Part 2 will take a closer look at

this process of continuous reformulation and other major tactics in McLuhan's strategies of production.

My interpretation suggests how McLuhan's textwork is intelligible, once read in context, but it does not and could not exhaust McLuhan's rich texts. Nor can it do more than provide grounds for preferring this reading over others. The point of this chapter is to explicate McLuhan sympathetically, not to argue with him, so the justifications for my interpretation are located inside, not outside, McLuhan's intellectual production. Chapter 1 is lengthy because the intelligibility of McLuhan's rhetoric of assertion anchors subsequent arguments regarding the rhetoric of intellectual controversy surrounding his work. In this Chapter the academic controversy provoked by McLuhan recedes from direct attention. For now his ideas gain a hearing from within the horizon disclosed by the scope of his work, where the rhetoric of his assertion, what he said, how he said it, and what I conclude on the evidence he probably meant, are at issue.

One major contextual point must be established from the outset. It is my contention that McLuhan's observations on matters ranging from topless waitresses to Richard Nixon to living at the speed of light are always interesting and insightful; however the enduring aspect of his work, that which is of the utmost relevance, and that which holds the focus for this reappraisal, consists in his ceaseless efforts to understand human relationships with changing techno-cultural and media forms. For purposes of clarity, this document will describe what McLuhan called his "communication theory of transformation" in a manner consistent with the abductive sense in which I believe he meant theory. Abductive is a term developed by C.S. Peirce, in contradistinction to deductive or inductive, to describe the creative formulation of new hypotheses that explain a given set of facts. McLuhan's strategic efforts to affect his contemporaries will be distinguished as his rhetorical practice. The concluding discussion in Part 1 will summarize this theory at length and in Part 2 will address certain objections, including the obvious one as to whether McLuhan was doing theory at all.

For the reader's convenience, a preliminary statement of the theory is in order. McLuhan searches throughout his intellectual career for an epistemology of experience and knowledge based in sensory and physical relationships with language and artefacts, as opposed to an epistemology grounded in logical concepts. The general theory of mediamorphosis, as I interpret it, has two aspects: the core dynamics, and the master historiographic patterns (see Illustrations 2 and 3). These can be distinguished for purposes of exposition, a practice followed in the discussion below; however, they are inextricably linked in his work. The core dynamics refer to the operating principles that animate the interaction between human individuals and groups and their cultural environments, which are intermeshed with media and technologies. Within specific historical periods, where identifiable media and technologies dominate within particular cultures, these animating principles become "operating systems"[3] whereby experience shapes understanding and knowledge. An early and prominent example of his discoveries can be found in his best-known work, *Understanding Media*, where he develops the idea of media as "extensions" of man. Over his career, McLuhan can be seen to develop a four part diagnosis, that I have phrased (using his terms) as extension, invention of environments, interiorization, and continuous transformation. McLuhan's diagnosis encompassed the mind and the body, and also the human relationship with the external environment through language. Bacon came to personify the emphasis on experience, while Vico stood in for the emphasis on retracing the human-made world through modifications of language and mind. McLuhan's propositions on media arise out of this attempt to ground epistemology in experience, and result in a techno-cultural hermeneutics that interprets the ground for understanding. Media, he argues, enhance or retard various senses or attributes. McLuhan observed repeatedly that media have different effects depending on the historical state of the culture into which they are introduced. Yet he also considered that each medium had unique formal properties with particular sensory effects that operated independently of the intentions of the user. The simplest examples would be the association of speech with the ear and the characteristics

Illustration 2

McLuhan's Theory of Techno-cultural transformation or mediamorphosis
Historiographic Patterns I

Technology	**Senses**	**Cultural Condition**
Speech	Ear	Oral
Writing	Eye	Literate/Visual
Printing Press Typography	Eye	Visual Space/Mechanical
Radio	Ear	Electric/Acoustic
TV	Ear, Eye, Touch	Electric/Electronic
Computer	All Senses	Electronic

Illustration 3

McLuhan's Theory of Techno-Cultural Transformation or Mediamorphosis
Core Dynamics

1. Extension	[of sense, body, mind, attributes]
2. Make Environments	[active invention of artefacts and space, active processing by environments]
3. Interiorization	[sensorium, processed and programmed by made environments, commonsense + sensus comunis created]
4. Continual Interactive transformation	[senses, media are engaged in constant translation, producing an ecology of media + culture]

of acoustic media, and the association of writing and typography with the eye and the characteristics of visual media. His formalism was always interactive, and not static. In the 1960s, for instance, McLuhan proposed a dual formulation of media as hot and high intensity, versus cool and low definition. Later, the tetrad became the most complete development of this line of thinking, as McLuhan expanded his diagnosis of media properties to cover the inner dynamics of all human artefacts. The advantage of retracing McLuhan's theory of mediamorphosis throughout his work is that it becomes possible to retrieve what I would argue is his fundamental formulation of the core dynamic, as just described, and to distinguish this from the tetrad.

McLuhan's theory of mediamorphosis has a second crucial element. The master historiographic patterns refer to the techno-cultural shifts that preoccupy McLuhan increasingly after his contact with the work of Innis: from orality to writing with the phonetic alphabet, from manuscript writing to the printing press, from mass mechanized printing to electric and electronic radio, television and the computer. I describe these shifts as historiographic because they refer not simply to events over time but instead require a theory of historical change for their meaningful interpretation. McLuhan's theory permits the retracing of effects of media back to their causes, and enables the investigator to read the clues of human history, from architecture to literature, to discern invisible patterns that frame understanding. The value of the historiographic patterns does not consist exclusively in descriptive periodization. In fact, I intend to demonstrate that McLuhan's articulation of these patterns changes, as had his phrasing of the core dynamics. Apart from the useful virtue of drawing attention to the neglected historical role of communications media and technologies in cultural change, the chief value of McLuhan's pattern recognition lies in the highlighting of the interrelationships among media forms within active environments that McLuhan thought of as media ecologies (e.g. *Understanding Media* 1964, 199) with the power to process entire cultures as well as individual psyches. Chapter 1 will expand upon this compressed introduction to

McLuhan's emergent theory of mediamorphosis and his continual rephrasing of the core dynamics, and the master historiographic patterns.

A Word About McLuhan's Texts

To read McLuhan's texts today is to encounter a volatile, erudite and skilled intellect, and a series of experiments on the page. Umberto Eco amusingly captures the mingled sense of frustration and exhilaration experienced by many first-time readers, when he describes McLuhan's prose as "cogito interruptus" (1986, 221-38).His style of expression is central, and not merely incidental to his intended meaning. Because the question of McLuhan's style has bearing on the intelligibility of his work and the response of his critics, preliminary acknowledgement must be made of the array of techniques deployed in his multifaceted experimentation, and why he engaged in these experiments. Exuberant use of paradox, pun, and juxtaposition, characteristic of the "McLuhanesque" style, renders McLuhan's meaning unusually open to interpretation. This was, as he insisted, by design. He invites the beholder to share in a do-it-yourself project of discovery. Privately, in the Last Decade he describes the disjunctive style of his books of the 1960s (on which Eco had commented) as "Menippean satire" (*Letters*, 1987, 448; 517). This obscure genre of classical Roman satire combines prose and verse and juxtaposes levels of meaning and sensibility (Coffey 1976). McLuhan's twentieth-century version adapts well to multimedia formats in the 1990s; however, in the 1960s, his unorthodox texts upset many readers' sensibilities by incorporating poetry, prose, headlines, commercial advertising samples (combining text and picture), woodcut prints, photos, illustrations, cartoons, captions, and more. Often typographically experimental, extensive quotations from diverse authors--particularly James Joyce--are sometimes featured as marginalia, and commentary might run upside down, or circle a page.

His books (called "nonbooks" by his critics) playfully subvert the conventions of Gutenberg, with a serious purpose. Their apparent chaos is intended artfully to shock the reader into recognition of patterns of sensibility by jolting into consciousness the

mechanized tyranny routinely imposed by the rows of uniform words laid out neatly on the printed pages, awaiting the expected scanning from left to right, top to bottom, page after page. If they are to succeed, paradoxically McLuhan's works rely on the reader's willingness to become a co-experimenter. McLuhan's disruption of linear print forms self-consciously supplies an answer to the question he is wrestling with at the time as he writes to Ezra Pound in 1951; "How are words to be used to unravel the spell of print? Of radio commercials and `news'-casts? I'm working on *that* problem" (*Letters* 1987, 227).The technique of juxtaposition, initially of words but including visual elements from the time of a cartoon strip included as illustration for his essay "Dagwood's America" in 1944, permit him great latitude in the presentation of the patterns he discerned. He works at producing an effect and attracting attention. One of his most important strategic productions is himself: as he believed all writers and performers did, he fashions his public persona as a kind of mask with which to put on his audience.

McLuhan's strategies of textual production are part of his rhetorical practice, yet they are also an expression of his theory. Continuously experimenting with how to make the medium his message, McLuhan designs his books as teaching machines, do-it-yourself kits for perceptual training with the objective of raising conscious awareness of the media environment. In this he is inspired by the artists whom he believed retraced the process of cognition, and arrested it for contemplation in their artworks. McLuhan's speculative texts and theories are undeniably difficult, as he experiments continuously and on multiple levels in search of a format that will show and not simply tell his readers about the "reorganization of imaginative life" resulting from the introduction of new media and technologies. His vast archive of resources, spanning the arts and sciences, and his tutelage in the works of artists such as James Joyce, Wyndham Lewis, and the French Symbolists, guarantee that his readers outside a small circle of literary intellectuals will not recognize the sources of his inspiration and the models for his experiments. We will return to these strategies of production in Part 2, after retracing McLuhan's themes and emergent theory.

Several steps are required for the textual interpretation in the next section. Within each phase, a capsule summary of key events within McLuhan's intellectual production is first provided. A composite chart can be found in Illustration 1. Exegesis and reformulation of McLuhan's core meaning is accomplished by juxtaposing his writings and interviews with his private letters and lesser known essays. By a kind of hermeneutic layering of figure and ground, McLuhan's texts are contextualized as parts within a whole. McLuhan is candid about his intentions in letters and interviews. When writing for or speaking to audiences of fellow educators, particularly Christian educators, his format grows less experimental, his prose more conventionally lucid. As befits a gifted orator engaged in experimentation and thinking out loud on the page, all major themes are repeated on numerous occasions. After 1959, this oral quality becomes more pronounced as McLuhan dictates all letters to his secretary Margaret Stewart (*Letters*, 178). With due diligence, without excessive force, in each text can be read part of his larger project.

The Phases of Intellectual Production

McLuhan's biographical context will be discussed in Chapter 2, however it is necessary to summarize briefly the four key orientations of his mature identity because I will refer to them in the next section when discussing McLuhan's intellectual trajectory. As argued elsewhere (Jeffrey 1989), McLuhan can be understood as a self-created man, lifelong educator, superior outsider, and pattern watcher. As a self-created man, he lacks wealth and family connections, and finds a way to make a mark in the world through the route of intellectual life. His departure for Cambridge in 1934 and achievement of his PhD in 1943, confirms his promise and direction. While still a graduate student, in 1936 McLuhan begins teaching, and although his letters indicate ambivalence towards the academy, he becomes a committed educator. His early exposure to rhetoric through his mother, a semi-professional elocutionist, and his Cambridge literary training strengthens

his vocation as a teacher, and affirms his willingness to consider platforms outside the classroom and vehicles beyond scholarly publishing to reach audiences.

In 1937, he converts to Roman Catholicism, and after this time teaches only in Roman Catholic institutions. His religion plays a central role in his intellectual life, but too much can be made of this point, so clarification is in order. It is as a matter of choice made after intense reflection and a careful study of history and literature, and not as a matter of birth or dogma, that McLuhan selected his religion. The chief intellectual consequence of this conversion, that colours all his subsequent work, is the confirmation of McLuhan's (and Vico's) conviction that the man-made world can be understood. His Protestant upbringing had conferred the benefits of independent thinking, even regarding the choice of Roman Catholicism, and his faith in the world's intelligibility seems to have preceded his conversion. McLuhan consistently challenges his fellow Roman Catholics to expand their intellectual horizons to include the insights of, among others, Jung, Freud, Vico, and Joyce. The other significant intellectual consequence of this conversion for his mature identity is that it confirms McLuhan's sense of himself as a superior outsider with an "in", meaning that he has joined a minority tradition that he considers worthy of his full allegiance, although he is aware that his worldly prospects may be adversely affected by such a decision. The fact that he is a convert, and possibly his moderately Protestant upbringing, may also account for the fact that in his major intellectual production, McLuhan insists that he will not let his personal piety cloud his observations and commentary. His faith remains unshakeable, however he knows firsthand that it is possible to think outside such commitments.

The final orientation, that of pattern watcher, develops in the Early Phase of his intellectual production, beginning with his discovery of the trivium in his doctoral work, a pivotal intellectual event to be discussed shortly. This stance as pattern watcher is reinforced by his position as a Canadian outsider with a privileged view on British and U.S. culture. Thus it is as a self-created outsider, pattern watcher, and educator inside

and outside the classroom that McLuhan's identity fuses with his aspirations as an intellectual.

The Early Phase

> "So obsessive a metaphor as that of linear perspective is important enough to deserve some explanation, especially since we are now deep in the process of extricating ourselves from it. For it still holds firmly among such inheritors of eighteenth-century rationalism as the sociologists and the Marxists." --Marshall McLuhan ("Inside Blake and Hollywood" 1947, 710)

The Early Phase of McLuhan's career as published author commences with the 1936 publication of an essay on one of his heroes, G.K. Chesterton, and ends with the appearance of his first book, *The Mechanical Bride*, in 1951. During this period, he obtains his Ph.D. from Cambridge in 1943, begins his teaching career at Wisconsin in 1936, followed by jobs at St Louis University and Assumption College, and secures a full-time position as the first layman to teach English at the University of Toronto's St. Michael's College in 1946. During the Early Phase, McLuhan is recognized as a promising young literary critic identified with the New Criticism movement as it is called in North America, and also identified with I.A. Richards, one of his Cambridge professors, and author of *Practical Criticism* (*The Interior Landscape* 1969; Theall 1971; Wain 1985; Marchand 1989).

Three major themes predominate in the Early Phase. First, his doctoral work and discovery of the trivium establish an interpretive approach to the broad sweep of cultural and intellectual history as a way of contextualizing the innovations of artistic figures. This approach will provide the backdrop for his theory of techno-cultural transformation and sensitize his thinking to the master historiographic patterns. Second, in his literary criticism he is preoccupied with aesthetic technique as opposed to content, and he focuses in particular on landscape as a technical device for producing an effect in the reader. This line of thinking results in his discovery of the significance of form, and has

relevance for the later core dynamic as landscape becomes galaxy and eventually environment. It also leads McLuhan to explore the "inscape" and the process of artistic and ordinary cognition, which will influence his ideas on the core dynamic of interiorization. Third, he attends closely to advertising, popular media, and the forms of everyday experience. This will be a research area where he makes a pioneering contribution, and promotes him to develop critical awareness of the specific properties of media forms. His published work during this phase reflects this triple strand of interests, and culminates in *The Mechanical Bride*.

The sustaining roots of McLuhan's interest in the theme of communications and culture can be located in his discovery of the trivium--the three roads of rhetoric, grammar, and dialectic or logic--while writing and preparing his doctoral thesis for Cambridge during the later 1930s and early 1940s (see illustration 4). McLuhan's fascination with the trivium thrives throughout his career. During the Last Decade he continues to research the topic in an ultimately unsuccessful attempt to publish his dissertation. Inspired by his professor I.A. Richards at Cambridge, who pioneered the approach known as Practical Criticism, and who was responsible for an interwar revival of interest in rhetoric, in his early teaching career of the late 1930s, McLuhan initiates a course on rhetoric and interpretation at St. Louis University (Ong 1981). Rhetoric and grammar have contemporary relevance, McLuhan believes. In a major essay of 1946, "An Ancient Quarrel in Modern America," McLuhan analyses the "Great Books" program, a then popular approach to general education initiated at the University of Chicago, in terms of the legacy of the arts of the trivium. In the 1970s, these interests lead him to evaluate T.S. Eliot and Ezra Pound in formalist terms of opposing rhetorical and grammatical approaches ("Rhetorical Spirals" 1978). In the posthumously published *Laws of Media* he offers his laws of media as a new bridge for the ancient trivium, a way of pressing forward the claims of rhetoric and grammar, in a linguistic and humanist program designed for the electronic period (1987, 124-25;128). In the *Laws of Media* he

Illustration 4

Logos (the word) becomes ...

The "Three Roads" of the Trivium

Rhetoric (eloquent wisdom)
Grammar (etymology and exegesis)
Logic/Dialectics (methods of reasoning or proof)

McLuhan's key discovery in his 1943 Cambridge Doctoral Thesis

situates his contribution within a tradition that included the two great rhetorical grammarians, Bacon and Vico.

The trivium was initiated by the Greeks, and later modified to form the core arts curriculum for schools throughout the West until the late Middle Ages. The Logos or word was divided into three. Dialectics sought truth in the methods of logical reasoning and argument. Rhetoric sought truth in eloquence, and trained the doctus orator in wise argument and persuasion. Grammar sought truth in interpretation by means of etymology and exegesis. Rhetoric and grammar together comprise the foundation for humanities, the humanities; logic forms the basis for natural science. (*An Ancient Quarrel in Modern America*, 223-231). Through a program of the trivium and later the quadrivium (which included arithmetic, geometry, astronomy, and music), together known as the seven arts, the transmission of western knowledge and traditions took place for nearly 2500 years. In what was known as the ancient quarrel among the proponents of the three roads comprising the trivium, grammar and rhetoric vied with dialectics for predominance in a rivalry over claims to being the correct method for arriving at truth (*Nashe* 1943, 47), and the proper ends of education (*The Interior Landscape* 1946, 224).[4] The trivium had largely been forgotten by cultural historians, although it had provided the dominant mode of intellectual training and formal education in the West.

It is not the content of the trivium as a course of study that interested McLuhan, but rather how the shifting balance among the arts of the trivium shaped *and* reflected language and thought while providing the context for conducting intellectual disputes. McLuhan argues in his dissertation that recognition of the significance of the trivium provides the historical context in which the otherwise inexplicable quarrels between the sixteenth-century satirist, Thomas Nashe and his contemporaries can be rendered intelligible Nor was his interest exclusively antiquarian, for McLuhan later extends his observations on the trivium into contemporary life, finding that a culture steeped in the ancient rhetorical arts, such as in the Southern U.S., or Italy, favours literature, oratory, law, and the humanities; where logic and dialectic predominate as the basis for education

and training, as in the Northern American states, science and commerce are in the ascendant ("An Ancient Quarrel in Modern America" 1946). He also considers the trivium indispensable to grasping the work of James Joyce ("James Joyce: Trivial and Quadrivial" 1953). Underpinning all his later thinking is the idea of a subterranean ancient quarrel with demonstrable cultural consequences. He takes a view of cultural history as a story of deep shifting rivalries among the legatees to the respective disciplines of the trivium. Much of his early work exhibits this recognition of the shaping influences and cultural consequences of educational programs conceptualized in the broadest possible sense, as crucial contextual devices for comprehending the historical and cultural roots of conflicting intellectual orientations (e.g., "Edgar Poe's Tradition" 1944).

McLuhan refers to himself as a cultural historian in his doctoral thesis (1943, 159). As he views it, cultural history is not a linear story of progress, nor of great men and their deeds, but rather is quarrelsome, is history as a series of controversies, with distinctive competitive positions voiced; parties are now predominant, now marginal and forgotten. This conception is supported by his personal reading of history, influenced by Chesterton and others, which leads to his conversion. In a 1939 letter to Corinne, he privately describes his decision in terms reflecting a deep suspicion regarding orthodox (i.e., Protestant) historiography (*Letters* 1987, 100-01). He retains this sceptical attitude, and critical awareness of history as a story told by those who may have forgotten or omitted the genuine ground that makes the story meaningful.

His sympathies with the ancient grammarians orient all his later work, taking grammar in its historic sense as the interpretation of patterns and root structures, and of the operation of language in texts and human expression. Yet he found in the trivium a living tradition. In his thesis, two germane quotes indicate this enduring orientation. First, "the very events of history are a gigantic and complex statement to which the methods of grammatical exegesis are applicative..." (1943, 29). Second, "in our time the methods of anthropology and psychology have re-established grammar as, at least, a

valid mode of science" (ibid., 5). The exemplar for McLuhan's affiliation was John of Salisbury, who argued in his *Metalogicus* against the dialectitions on the grounds that, as McLuhan puts it: "John saw clearly that the mistake of the dialecticians was to separate their discipline from the trivium of which it is an indispensable part, and to make it do service for all. John was quite right. The only question which logic can solve by itself is a question of logic..." (*Nashe* 1943, 236). McLuhan carries this argument forward throughout his work, culminating in his claim to advance the rhetorical and grammatical position into the twentieth century in the *Laws of Media*. The discovery of the trivium confirmed McLuhan's strategic orientation as pattern watcher.

During the Early Phase, most of his textwork is literary criticism, in which he contextualizes the artistic strategies and insights of authors including Poe, Hopkins, Eliot, Pound, Tennyson, Dos Passos, against a background of cultural developments, as he had done with Nashe. He foregrounds artistic and poetic technique. His essay on Dos Passos articulates the principle behind this approach. In order for criticism to be more than "a review of the `content' of works of art," he writes, it "must take cognizance of the technical means by which an artist achieves his effects" (*The Interior Landscape* [1951] 1969, 56). Politics in a narrow ideological sense, for example is "outside the province of criticism, which is concerned with the means employed and effects obtained by an artist" (ibid., 62). Yet the critic, as McLuhan did consistently (e.g., in his essay, "Edgar Poe's Tradition"), must evaluate the work of art not only by a close reading of the words on the page, as New Criticism decreed, but also by standing back and evaluating his subject's achievement within the expanse of cultural history, as his Cambridge training under Richards and F.R. Leavis had prepared him to do.

Towards the end of the Early Phase, another key theme that emerges in McLuhan's literary studies is landscape, as Eugene McNamara has noted in his introduction to *The Interior Landscape* (1969). McLuhan argues that the Romantic poets had discovered the natural landscape, but that the Symbolists and their contemporaries shifted focus to the interior landscape later in the nineteenth century. Gerald Manley Hopkins' term "inscape"

captures this interior landscape. In Flaubert McLuhan finds a master of the shaping of the sensibilities of the inner landscape. With the discovery of `le paysage interieur' by Baudelaire, Mallarme, Laforgue, and Rimbaud, McLuhan argues that it became possible "to be much more subjective and also more objective than the Romantics" because by taking as subject the interior and not the natural landscape, artists could model the entire spectrum of the inner life; "moreover, the technique of inner landscape not only permits the use of any and every kind of experience and object, it insures a much higher degree of control over the effect; because the arrangement of the landscape is the formula of the emotion and can be repeatedly adjusted until the formula and the effect are in precise accord" (*The Interior Landscape* [1951] 1969, 154-55).

In this idea of interior landscape as formula for producing an effect, McLuhan draws directly upon "The Philosophy of Composition" where Poe advanced the influential idea that the artist should begin with the effect he wanted to achieve in his audience, and work backward to build it. This rhetorical prose tactic gives rise to the detective story, conceptualized, as Poe demonstrated, from back to front. The Symbolists took up this doctrine, followed by the Irish and Anglo-American modernists, Yeats, T.S. Eliot, Pound, and Joyce, whose work McLuhan first read at Cambridge (*Letters* 1987, 6) and would later introduce to his students. Eliot later elaborated on this technique, calling it the "objective correlative" by which he meant "a set of objects, a situation, a chain of events which shall be the formula of that particular emotion; such that when the external facts, which must terminate in sensory experience, are given, the emotion is immediately evoked" (*The Gutenberg Galaxy* 1962, 328; Eliot 1932, 145). By focusing on the techniques of the artistic act, McLuhan grows increasingly aware of the artists' strategic and self-conscious devising of what he would later call "counter-environments" in order to achieve effects in their audiences.

McLuhan follows a trail of literary clues in Flaubert, Poe, the Symbolists, the modernists--including painter, novelist and critic, Wyndham Lewis, and increasingly Joyce--until he finds a general insight that will animate all his subsequent work: the

discovery that form produces an effect independent of and more powerful than content. The artist can create a form that makes, and need not simply match, an effect. Later he connects this discovery with the forms of media and technologies, still later with environments that have unintended effects. Later still, McLuhan links the idea to formal causality to (*Letters* 1987, 259), but the insight arises in the Early and Explorations Phases as a dimension of his literary and aesthetic studies stimulated directly by reflection upon the shift from exterior to interior landscape (*Letters* 1987, 218; 224;). The technique that particularly grabs his attention is the use of inner landscape as a device to arrest and effect "the aesthetic moment" (*The Interior Landscape* [1952] 1969, 157).

McLuhan also links this idea of an inner landscape to Vico's discovery that the cultural history that humans have made can be traced back through language, in the modifications of our own minds (*The Interior Landscape* [1953, 1952] 1969, 24; 161). James Joyce, who "used Vico as a trellis," inspires McLuhan's deepening interests in this connection between language and the canvas of cultural history, and he observes: "Catholics have failed to understand or utilize Vico. Vico's great discovery of a psychological method for interpreting historical periods and cultural patterns is rooted in his perception that the condition of man is never the same but his nature is unchanging" (Introduction to *Paradox in Chesterton* 1947, xvii). For McLuhan, on my interpretation, the historiographic patterns change; but the core dynamics remain constant.

But there was another major lesson that McLuhan draws from this study. McLuhan understood that the point of these aesthetic discoveries was that the reader is invited to become co-participant in the creative act.. This. relationship between artist and audience, one of co-creation, influenced all of McLuhan's subsequent intellectual production. What struck McLuhan was that when the artists applied their insights to ordinary consciousness, they sought to involve their readers as co-participants in the creative process; the aesthetic moment of insight, which Joyce called the epiphany, was to be found in everyday life, not in some special moment of mystical awareness. Two phrases

encapsulate while signalling the sources of McLuhan's insight into the participation of audiences in the creative act, a kind of mental short hand or mantra that recurs throughout his texts: Baudelaire's "Hypocrite lecteur, mon semblable, mon frere" and Joyce's "My consumers, are they not also my producers."

The third major thematic strand, already touched upon above, is his interest in advertising and popular culture. His Cambridge professor, F.R. Leavis, in *Culture and Environment* (1933) and his wife Q.D. Leavis, in *Fiction and the Reading Public* (1932) had stimulated McLuhan's own interests, as had the work of Wyndham Lewis, with his catalogue of newspaper exhibits and commentaries in *Doom of Youth* (1932). Later McLuhan would add that he also turned to the study of popular culture in the 1930s as a rhetorical strategy for reaching his audience, the young American students whom he taught, and whose culture was foreign to him (Stearn 1967, 262). The distinctiveness of McLuhan's approach to popular culture is twofold. As a Canadian national, a colonial outsider from the prairies, he does not take "culture" for granted; instead, he is self-consciously aware of the cultural specificity of the comparative appeal and the forms of popular culture (e.g., U.S. and British advertising and popular entertainment) ("American Advertising" 1947, 435; 437). Nor does he dismiss popular culture as a simple degraded form, in a British class-laden or American highbrow snob sense. This perspective permits an unusual openness to the idea that popular commercial culture must be explained as something we do to ourselves, not something someone else does to us. If popular commercial culture is a problem, then we must look to ourselves and to aware educators and critics for the solution. As he writes in "American Advertising":

> To contemplate the products of our own appetites rather than to anathematize the people who are keen enough to exploit them--that is surely no programme which must await the setting up of committees or social machinery. It is the only form of adult education which could be called realistic and is instantaneously practicable. That the highbrows have been content merely to cock a snoot at the fauna and flora of popular commercial culture is sufficient testimony to the superficiality with which they have envisaged the nature of politics. (1947, 437)

McLuhan regards the making of a common culture through popular communications and culture as very political (*The Mechanical Bride* 1951, 11). He writes about advertising and the "effluents" of popular culture, and the totalitarian squint of the market researchers, but he also calls it "the poor man's orchids." In this Early Phase, McLuhan's work sometimes sounds the moralistic tone set by his influential teacher F.R. Leavis, yet it is muted. He departs from Leavis in rejecting the intellectual highbrow position that refuses to consider popular culture as art form ("Inside Blake and Hollywood" 1947; "American Advertising" 1947).

In essays such as "Dagwood's America," McLuhan presents a call to arms for American males; what is unusual is that he takes the comic strip seriously enough to trace the ancestry of Dagwood's role as father back in comic history. He insists that popular culture is complex, repeats his disagreement with those intellectuals who dismiss it, and links his explorations of popular culture with art forms and aesthetic strategies. In this strategy, McLuhan remains under the influence of his literary sources and mentors. So, for example, I.A. Richards notes in *Practical Criticism* (1929, 299): "Mr. T.S. Eliot, than whom there could be no more qualified observer, has suggested that the internal combustion engine may already have altered our perception of rhythms." The nineteenth-century Symbolists were also interested in forms of ordinary consciousness, and believed as McLuhan observes that "the cognitive process was also the creative process" (*The Interior Landscape* 1969, 149). From the artists, including Joyce and Eliot, McLuhan learns that great artists could draw upon popular culture as a resource. For example, McLuhan discovers in the Symbolist tactics of juxtaposition and discontinuity echoes of the formula of the front page of the newspaper, and witnesses how this artistic technique is used to frame multiple planes and moments of experience. Above all, James Joyce's *Ulysses* and *Finnegans Wake* inspire him to recognize how artists weave the culture of daily life into their art.

McLuhan presses his study of techniques into the criticism of popular cultural forms. In his essay, "Inside Blake and Hollywood," McLuhan draws parallels between movie

techniques and aesthetic techniques from art and literature (1947, 714). Ostensibly a book review, the essay also demonstrates the non-linear juxtapositions McLuhan now plays with to achieve his effects, linking books on Catholic philosophy (E. Gilson), Blake's vision (N. Frye) and the products of Hollywood (P. Tyler). "American Advertising" diagnoses the conditions of culture based on its popular manifestations. He has learned these unorthodox techniques of discontinuity and the blurring of genres from his literary studies. Advertising, radio, Hollywood, popular magazines, are now viewed as the folklore of a unified popular culture, and McLuhan assesses the impact of these technologies, as he continues to do with artistic technique, within the context of culture writ large. He concludes in a 1946 letter to his colleague Felix Giovanelli with a characteristic mixture of optimism and pessimism. "The view is horrible, but the garden is there too" (*Letters* 1987, 184).

The Mechanical Bride

In *The Mechanical Bride* (1951), McLuhan brings together the three thematic strands, and indicates how thoroughly he has merged his study of Joyce and the Symbolists with his interest in popular culture. With the appearance of *The Mechanical Bride*, McLuhan becomes one of the first to level the conventional distinction between high culture and daily culture, or between the notion of culture deemed appropriate to literary and aesthetic criticism, and the "anthropological" notion of culture. McLuhan finds his linkage between high and mundane culture through education and commercial media. His rhetorical emphasis, in the dual sense of reaching a broad audience and of awareness of the efforts of others who reach audiences subliminally, is explicit from the first paragraph of the preface:

> Ours is the first age in which many thousands of the best-trained individual minds have made it a full-time business to get inside the collective public mind. To get inside in order to manipulate, exploit, control is the object now. And to generate heat not light is the intention. To keep everybody in the helpless state engendered by prolonged mental rutting is the effect of many ads and much entertainment alike. Since so

> many minds are engaged in bringing about this condition of public helplessness, and since these programs of commercial education are so much more expensive and influential than the relatively puny offerings sponsored by schools and colleges, it seemed fitting to devise a method for reversing the process. Why not use the new commercial education as a means to enlighten its intended prey? Why not assist the public to observe consciously the drama which is intended to operate upon it unconsciously?

McLuhan expresses his rhetorical emphasis through the persona of the unorthodox educator, a stance that already extends beyond the classroom. Yet he operates also as a grammarian. The essays in *The Mechanical Bride* are laid out on the page in two columns reminiscent of the newspaper form, and introduced with headline-style captions. To these are added advertising samples, combining print and visual images. In this way, McLuhan combines the words and images of advertising so that, as he tells the reader, they can be "dislocated into meaning by inspection" (vi). In this phrase from T.S. Eliot, he works as a grammarian. In the rhetorical sense, McLuhan is not making a case to be proved, legal-style; rather he presents his exhibits so as to reveal a complex situation and a hidden truth. Yet the realization of this insight can be achieved only by the reader, within his/her situation. The text comes to meet the reader, it is designed and packaged to produce insights. But "the beholder's share," as Blake put it, is crucial to successful communication. McLuhan rhetorically issues an invitation to the reader. Unlike the vast majority of educators, McLuhan will rarely attack "the very considerable currents and pressures set up around us today by the mechanical agencies of the press, radio, movies and advertising" (v). Instead, he insists that this folklore and the form of cultural life that spawns it, is full "not only of destructiveness but also of promises of rich new developments to which moral indignation is a very poor guide" (v).

By the tactic of art analysis applied to the folklore of industrial man, not made by the folk but popular in appeal, he will not preach to, but rather arrest the vortex for contemplation by the intended prey of the marketers. McLuhan tells the reader that he offers a strategy of pattern recognition analogous to that of Poe's sailor in "Descent into the Maelstrom," This sailor studied the "currents and pressures" in which he whirled

towards his doom, yet his "rational detachment as a spectator of his own situation" and "amusement" gave him "the thread which led him out of the Labyrinth" (v). The reader is offered clues to the current situation, and encouraged to arrive at an individual strategy (v). McLuhan conceives of popular communication and culture not as a static landscape, but as dynamic, a whirling vortex. His tactic is to apply the techniques of literary and art criticism to these new forms of life readily displayed in the folklore of industrial man. McLuhan acknowledges Burckhardt's significance as the first to show how to apply methods of art analysis to history. Mallarme and Joyce further point the way. Mallarme discovered his Symbolist techniques in the form of the daily newspaper of 1890. For Joyce to write "his epic of the modern Ulysses he studied all his life the ads, the comics, the pulps, and popular speech" (*The Mechanical Bride* 1951, 59).

The landscape theme pervades *The Mechanical Bride*, beginning with the first item, "Front Page," which satirically queries: "You never thought of a page of news as a symbolist landscape?" (ibid., 3). The technique of discontinuity links the front page, modern science, and art, states McLuhan. The popular modern press, that "huge landscape of the human family," has been seen by the Symbolists and Joyce as "a new art form of universal scope present in the technical layout." McLuhan continues: "Here is a major instance of how a by-product of industrial imagination, a genuine agency of contemporary folklore, led to radical artistic developments. To the alerted eye, the front page of a newspaper is a superficial chaos which can lead the mind to attend to cosmic harmonies of a very high order" (ibid., 4). The newspaper form presents a "landscape connected only by a dateline." It is by linking insight into the form of the newspaper with the changing sensibilities of nineteenth-century artists that he begins to grasp this principle of the modifications of sensoria through exposure to all media forms. Movies, magazines (The Ballet Luce), books, radio, market research--all form part of this landscape and folklore. Again drawing upon T.S. Eliot, McLuhan observes: "The throbbing of the gasoline motor and the rhythm of printing presses have much to do with

the everyday thoughts and feelings of ordinary people, whether in Tokyo or New York. They provide us with our `spontaneous' impulses" (ibid., 7).

The exhibits and commentaries of *The Mechanical Bride* are unfolded as a "single landscape" which releases the spectator from the usual participation in the processing of popular culture, and arrests the "whirling phantasmagoria" for contemplation so that, like a work of art, it can be grasped (ibid., v).[5] However, McLuhan is inspired not only by his literary sources, but also by his experiences with the technologies he uses to teach and reach audiences. McLuhan's commentary on this dream landscape simulates his own techno-cultural experience when he first presented the material that became the *The Mechanical Bride* as a lecture and slideshow in the late 1940s at Assumption College in Windsor. *The Mechanical Bride* unfolds like a slide show; the reader is there in the dark with a skilful lecturer arresting the images and providing commentary on his exhibits. It is to the inspection of imagery, which includes the typical format of the ad, at once print and picture, and towards a grammar and rhetoric of the commercial media that he suggests we turn our mind's eye, so as to grasp the intelligible patterns of culture, otherwise a kind of dream or drama which normally operates with our participation but without our conscious awareness: "Where visual symbols have been employed in an effort to paralyse the mind, they are here used as a means of energizing it." Art criticism offers "a citadel of inclusive awareness amid the dim dreams of collective consciousness" (ibid., vi).

Long before he encountered Innis, as this discussion of his themata of the Early Phase indicate, McLuhan adapts the literary and art criticism in which he is trained so as to develop a critical approach to understanding contemporary communications media against the mobile backdrop of cultural history. He takes an aesthetic approach, and is preoccupied with artistic technique and form over content. Following his sources in the arts and cultural history, he approaches advertising, the front page of the newspaper, and all popular communications media, as powerful techno-cultural forms.[6]

The Explorations Phase

> "It is, therefore, a simple maxim of communication study that any change in the means of communication will produce a chain of revolutionary consequences at every level of culture and politics." ("An Historical Approach to Media" 1955, 104)

The second phase can be styled the Explorations Phase, after the journal of that title co-founded by McLuhan and anthropologist Edmund Carpenter, who edited it, at the University of Toronto (1953-1959). In Holton's sense, this is the "nascent" phase for McLuhan's mature theories. Citing the work on communications by Innis, who dies in 1952, Carpenter and McLuhan secure a Ford Foundation grant for an interdisciplinary seminar entitled "Changing Patterns of Language and Behavior and the New Media of Communication," in which they participate for its duration from 1953-1955. The decade ends with the first full statement of the conclusions he has reached to date in the *Project on Understanding the New Media*, a research report on the implications of new media for the secondary school curriculum that he is contracted to prepare in 1959 by the National Association of Educational Broadcasters, with funds from the Office of Education, U.S. Department of Health, Education, and Welfare. The mimeographed report appears in 1960, following a sabbatical year. During 1959, McLuhan formulates both of his enduring rhetorical ideograms for his developing theory: the medium is the message and an early phrasing of the global village. McLuhan continues in this period to publish essays on literary figures, and deepens his studies of the Symbolists and the Modernists. "James Joyce Trivial and Quadrivial" (1953) is emblematic of his continued preoccupation with the trivium. Following his exposure to the work of Innis on communications in 1951, McLuhan begins to look for clues to the modifications of human sensibilities and historical change in the impacts of media, a term that increasingly predominates in his rhetoric of assertion of his ideas. Most of his essays for *the journal Explorations* probe aspects of media. Themes around which his thinking is now constellating are media and education, media as art forms, the relevance of artistic techniques and insights in media study. He continues to discuss the shaping impacts of

media technologies against the ground of cultural history. The technique of landscape had--as we saw above--provided a dynamic metaphor in the Early Phase. In the Explorations Phase, landscape and language are linked further in McLuhan's writing. Approaching the emergence of new media as art forms and new languages seems promising as a way to achieve insights into the historical ground and operating dynamics of changing sensibilities.

McLuhan begins planning the book that would become *The Gutenberg Galaxy* in 1952 and in a letter to Ezra Pound outlines his early conception of "The End of the Gutenberg Era" (*Letters* 1987, 231). The outline represents a draft of his thinking on the master historiographic patterns. In the left-hand column, he places the "inventions", and in the right-hand column, the effects in terms of various forms of "mechanization." His debt to Siegfried Gideon's *Mechanization Takes Command*, and *Space Time and Architecture* is evident, as McLuhan grapples with the notion of 'anonymous history'. His approach to historiography, or watching the patterns of history, has by this point been modified by contact with the thinking of both Innis and Gideon.[7]McLuhan writes to Pound:

> I'm writing a book on "The End of the Gutenberg Era"
>
> Main sections:
>
> The Inventions of Writing--Alphabet. Transfer of auditory to visual.
>
> Arrest for contemplation of thought
>
> and cognitive process.
>
> Permits overthrow of sophist-
>
> rhetoric-oral tradition
>
> Invention of printing.
>
> Mechanization of writing.
>
> Study becomes solitary.
>
> Decline of painting music etc
>
> in book countries.

Cult of book and house and study.

Cult of vernacular because of

commercial possibilities

Republicanism via association

of simple folk on equal terms

with "mighty dead".

Telegraph ultimate stage of mechanization of writing

Creates newspaper form.

Simultaneity of many spaces =

simultaneity of many different eras =

"abolition" of history by dumping

whole of past into the present.

Rimbaud

Radio--telephone--mechanization of speed.

Cinema--TV--mechanization of total human gesture.

Last 2 stages too steep for present day adjustment

He adds at the bottom:

> "Since Rimbaud the newspaper as landscape enters all the arts? With landscape comes necessary musical adjustment of all parts of poetic composition. Juxtaposition of forces in field rather than continuous statement. With mechanization of speed and gesture and swamping with visual--auditory matter after print-created drought we come to an age of semi-literacy, at best." And he asks Pound, "But are there some big facts I've missed?" (*Letters* 1987, 232).[8]

McLuhan pursues his central theme of the transformative powers of new media of communications in *Explorations*, where his published essays develop ideas for his later books.[9] McLuhan's debut article in *Explorations* is "Culture without Literacy." McLuhan's concern is with the transformations in cultures brought about by the shift from exclusively oral communication, which characterizes preliterate societies, to the advent of writing and literacy. He argues: "Historic man may turn out to have been

literate man." McLuhan is from the beginning concerned with the power of transformation: "But the fury for change is in the form and not the message of the new media, a fact which seems almost inevitably to escape men trained in our abstract literary culture" (ibid., 123). In this essay he also explicitly connects the new media and language, which he calls "the greatest of all mass media"(ibid., 124).

McLuhan returns to the theme of transformation in "Notes on the Media as Art Forms" in *Explorations* 2 (April 1954). In this essay, he attacks the prevalent assumption in media studies that communication is a matter of transmission of information, message or idea: "This assumption blinds people to the aspect of communication as participation in a common situation. And it leads to ignoring the form of communication..." (6). In *Explorations* 3, McLuhan considers "New Media as Political Forms." By this point, he is working with Innis as an invisible ground, and invariably cites Joyce as a point of departure or source of anticipation of his insights. Combining his exploration of the transforming powers of new media with his interest in rhetoric, McLuhan writes:

> The media have transformed the public in many ways and the public goes on transforming the techniques and consciousness of the authors who would master it. The man who has something to say is the man who has mastered some segment of public awareness. He is capable of lighting up some dim, fusty corner of embryonic social consciousness. Formerly an author could do this by introspection, when he was essentially a member of society. Today when it is no longer possible to be sure of what being a member of society may involve, the `author' has to bestir himself as much as any pollster. He lives in an unknown world of strange new components and effects. (1954, 125)

Linking his themes of transformative new media and education, he concludes: "If politics and the citizen are to survive the new media, we must alter our entire sighting and range-finding apparatus, which is still oriented to the printed page alone" (ibid., 126).

McLuhan is also intent on discovering aspects of the core dynamic that animates the changes he diagnoses. In *Explorations* 4, a key term for McLuhan, "acoustic space", surfaces in an article of that title by Carlton Williams, the psychologist member of the

Ford Foundation Culture and Communications seminar. It comes to mean the spatial experience created by the sense of hearing, a spherical centre without margins, and the primary cultural condition for pre-literate cultures. Notes from the seminar (54/5) indicate that much excitement and debate centred around this term and its meaning.[10] The early significance of the term acoustic space for McLuhan's developing ideas regarding cultural transformation through the dynamics of media and sensory metamorphosis is evident in McLuhan's article in *Explorations* 4, "Space, Time and Poetry."

> Now the nineteenth-century press and telegraph effected changes in society and communications which we are only beginning to catch up with conceptually. Perhaps what has happened, in the past century especially, has been the completion of the cycle of mechanization of human learning and communication. But that cycle began in pre-history. We become aware of it only at the advanced stage when writing occurs. Writing is the translation of the audible into the visible.[11]
>
> The translation is literally, metaphor. Recorded history is thus set upon a metaphor. Before the invention of that metaphor men had been shaping not visual but acoustical space. Oral speech is the articulation of that vague, terrifying ambience by which the ears of archaic man ensphere his being. It is by the visible spacing of pitches that he structures and controls the personal and interpersonal spaces of his world. Until men learned to translate these magical vocal gestures into visual terms, they went in awe and fear of their ordinary breath, their `winged words'. With writing the emotionally ordered acoustical space of pitch stress gradually dimmed. But even for Aristotle the obvious fact about speech is that it is a technique of arresting the hearer's mind and fixing his attention. For a culture of readers it seems strange to define speech as a series of acoustical gestures for arresting the mind. We had long ceased to speculate on this mystery until the mechanization of speech, image, and gesture brought the wheel full circle. Today, with all our technology, and because of it, we stand once more in the magical acoustical sphere of pre-literate man. (58-59)

This passage reveals the Explorations Phase thinking of McLuhan on the core dynamics and the master historiographic patterns. In particular, his insights into the centrality of metaphor and translation, and the thesis that the post-mechanization period

might bring about a return to an acoustic sphere are evident in this essay. Later McLuhan confesses his problem with communicating the experience of an acoustic space because he finds his print-oriented audience struggles to visualize a non-visual experience (Stearn 1967, 268-69). McLuhan's understanding of "acoustic space" is indebted to T.S. Eliot's notion of "the auditory imagination," which McLuhan cited in a later description of his work:

> "the feeling for syllable and rhythm, penetrating far below the conscious level of thought and feeling, invigorating every word: sinking to the most primitive and forgotten, returning to the origin and bringing something back, seeking the beginning and the end. It works through meanings, certainly, or not without meanings in the ordinary sense, and fuses the old and obliterated, and the trite, the current, and the new and the surprising, the most ancient and most civilized mentality"(From "The Auditory Imagination," cited in McLuhan "My Last Three Books" n.d., n.p.).

This theme of acoustic space marks a significant development of McLuhan's formulation of the core dynamics and historiographic patterns as it becomes clear that sensory predominance, shaped by dominant media, plays a role in the "invention" of particular sorts of spaces. Eventually, these observations will deepen into the work of *Through the Vanishing Point: Space in Poetry and Painting* (1968) and lead to the discussion of pre-and post-Euclidean space in the *Laws of Media.*

When technologies of communications are introduced into cultures, in media forms such as the newspaper or the printed book, these new media languages bring into existence new interior landscapes. In "Space, Time, and Poetry" certain continuities are evident with the Early Phase:

> The revolutionary switch from the outer space of Romantic poetry to the inner spaces of Symbolist art meant the discovery of the simultaneity of many times and many spaces in the inner landscapes of the mind. The juxtaposition of such times and spaces provided the form of *Illuminations*, *Ulysses*, and *The Waste Land.* But such juxtapositions had long been present in the form of the nineteenth-century newspaper. (1955, 61)

McLuhan concludes: "Not any art doctrine, then, but such complex changes as occur in the emergence of press as art form, lead to the union of the visual and acoustical space

in a new time-space poetry" (ibid., 62). It follows that it is not a history of ideas or doctrines, but a history of media and technologies that may hold the clues to changes in artistic sensibility and culture. The importance of this formulation lies in the fact that McLuhan has taken the properties of space and time, which Innis located in media--with their space-and time-binding properties--and instead locates the ground for changing experiences of space in the relationship between human senses or sensorium and media. His development of acoustic and visual space, as related to the ear and eye, return the question of media to its genesis in human senses and experience. It is necessary now to digress into a preliminary statement of the impact of Innis on McLuhan's developing thinking.

The Innis Connection in McLuhan's Early Phase Work

McLuhan's contact with the work of Innis inspires him in three main thematic directions. First, he articulates the subject of his life work, "the new media and their powers of transformation," and returns to the theme repeatedly in his essays published in the *Explorations* journal. Second, he starts to bring his own specialties in art and literary analysis to bear on the topic posed by Innis of the great shift in human history from orality to writing and printing. Third, he again draws on his interdisciplinary studies to consider more deeply the question of how all of this happens, and the core dynamics of change. Innis directed McLuhan's attention to the bias of communication, the invisible shaping influence of dominant media forms, but McLuhan continues to search for the mechanisms by which such cultural changes are effected. Where Innis stresses the connection between specific media and their space and time extending properties,[12] McLuhan probes the dynamic interplay between inner and outer landscape, seeking in the relationship between media, language, and sensoria the dynamics of cultural transformation. "Technology and Political Change" (1951) inaugurates a series of essays where he links material and aesthetic concerns, as also in "Joyce, Mallarme and the Press" (1954) and "A Historical Approach to the Media" (1955). Innis's economic

themes, such as media as staples, are first embraced and later modified as McLuhan finds other ways to reconnect with his earlier literary and cultural history concerns. The theme is changing cultural conditions, but contemplation of the bias of communication leads McLuhan to retrieve Vico's point that to understand history, it is necessary to comprehend the modification of our own minds. This insight directs his analysis of changing media not to the political administrative empires, as with Innis, but to the history of language, art, and the senses. Scrutiny of Innis' communications work shows clearly that he paid attention to all aspects of culture, and was not limited to the political economy of his training. A close reading of McLuhan's work reveals that his emphasis is intended to uncover the fundamental processes of this core transformative dynamic, not to ignore the institutional or political economic dimensions of the problem. Such close reading also confirms that McLuhan continually affirms the role of the body and bodily extensions in his formulation of the core dynamics, and thus did not restrict his diagnosis to language.

In his characterisation of what he believes to be a shift in Innis's later emphasis, McLuhan reveals his own (*The Later Innis* 1953). McLuhan concludes that when Innis turned his attention in his later communication studies from fish and furs to the trade in Canadian lumber and paper-making, and finally the press, he shifted in effect from the study of trade routes to investigation of the trade routes of the mind. McLuhan goes in reverse. It was Innis who permitted him to glimpse the prospect for bold juxtaposition of the trade routes of the mind (the literary critic's province) and the trade routes of the material world (the political economist's province). They arrive at a similar point--inquiry into media and technologies as shaping powers within human cultural history--and the conjunction of their distinctive insights gives birth to the emergent tradition of communications history. McLuhan's emphasis also differs from Innis's plea for time and the oral modes. He struggles to keep his opinions out of his diagnosis, and warns that "until we understand that the forms projected at us by our technology are greatly more informative than any verbal messages they convey we are going to go on being helpless

illiterates in a world we made ourselves" ("A Historical Approach to the Media" 1955, 110).

McLuhan's encounter with the work of his colleague, Harold Innis, is decisive (but not exclusive)[13] in helping McLuhan recognize how to apply his literary and aesthetic techniques to the analysis of material as well as symbolic culture. Siegfried Gideon is also a crucial influence. He later reflects that, "Innis was the first person to hit upon the *process* of change as implicit in the *forms* of media technology" (*The Gutenberg Galaxy* 1962, 65). According to McLuhan, only Innis had previously drawn together these macroscopic historiographic themes, and singled out communications media as agencies of fundamental historical change. For this reason, McLuhan calls his *The Gutenberg Galaxy* "a footnote of explanation to his work" (*The Gutenberg Galaxy* 1962, 65). In the conjunction of his own interests and the later communications work of Innis, McLuhan clearly recognizes his subject, "new media and their powers of metamorphosis." Yet the groundwork for his appreciation of Innis's significance is evident in his literary, historical, and aesthetic studies of the Early Phase, prior to contact. His encounter with and appropriation of Innis's ideas, before and after Innis's premature death in 1952, sparks a decade of furious exploration.[14]

McLuhan did not stop with the insights of Innis, however, and his significance does not rest on his contribution as a footnote to Innis. Two key distinctions that emerge in the Explorations Phase are McLuhan's recognition of the special significance of the phonetic alphabet, and a revision of the historiographic patterns that he had been inspired by Innis to acknowledge. The latter insight will concern the discussion at this point.

McLuhan's breakthrough in the Explorations Phase

The breakthrough for the emergence of McLuhan's general theory of techno-cultural transformation comes in the mid 1950s when he recognizes that the electric period is not simply an extension of a mechanical industrial phase, but rather represents a distinctive techno-cultural shift ("A Historical Approach to the Media" 1955, 109-10; "Educational

Effects of the Mass Media of Communication" 1956, 401).Here is an early formulation illustrating this crucial linkage among the core dynamics and historiographic patterns of McLuhan's theory as presented in his 1955 essay, "A Historical Approach to the Media." McLuhan is working with an evolutionary analogy when he writes:

> It would be possible to develop an elaborate theory of the various media of communication in Darwinian terms of natural selection. The media can be viewed as artificial extensions of our sensory existence... The cultural environment created by the externalization of the modes of sensation now favours the predominance of one sense or another, and these species struggle through various mutations in a desperate attempt at adaptation and survival. Improvements in the means of communication are usually based on a shift from one sense to another and this involves a rapid refocusing of all previous experience. It is, therefore, a simple maxim of communication study that any change in the means of communication will produce a chain of revolutionary consequences at every level of culture and politics. (1955, 104).

McLuhan announces his conclusion that under electric, and later electronic, conditions, all aspects of communications, and cultures are transformed (e.g., "A Historical Approach to the Media" 1955, 109-10; "Educational Effects of the Mass Media of Communication" 1956, 401; *Letters* 1987, 252-55; "New Media and the New Education" 1960, 182). Characteristically, his diagnosis of this pattern shift includes a plea for understanding, not for submitting to this environment. McLuhan later concludes that in missing the significance of this change, Innis misread the meaning of the electric period, which, according to McLuhan lay in decentralization, and centres without margins, in contrast to Innis' darker view of greater centralization ("Introduction" *Bias of Communication* 1964, xii-xiii).

In July of 1955 he writes to Wyndham Lewis that he is spending the summer "on a book on the Gutenberg Era--an attempt to assess the pre-literate, the pre-print, and post-print eras of culture." (*Letters* 248). By this point, he is further developing his conclusion that the electric era represents a further discontinuity beyond mechanization, another great divide in human techno-cultural historiography. His task thus becomes clear, if daunting. He paraphrases this idea in *Explorations* 8: "The new art or science which the

electronic or post-mechanical age has to invent concerns the alchemy of social change." McLuhan and his colleagues must invent a new art or science to meet the demands of the times.

On another front, these developments in his thinking run parallel to his approach to popular culture and he explicitly revises an attitude expressed in *The Mechanical Bride*. He includes a frank note on his changed perspective in the last paragraph of "Sight, Sound and Fury," a 1954 essay which circulates widely.[15] He begins by admitting that at the time of writing *The Mechanical Bride*, he "did not realize that [he] was attempting a defense of book-culture against the new media " Transformation is central to the shift in his thinking.

> I can see now that I was trying to bring some of the critical awareness fostered by literary training to bear on the new media of sight and sound. My strategy was wrong, because my obsession with literary values blinded me to much that was actually happening for good and ill. What we have to defend today is not the values developed in any particular culture or by any one mode of communication. Modern technology presumes to attempt a total transformation of man and his environment. This calls in turn for an inspection and defense of all human values. And so far as merely human aid goes, the citadel of this defense must be located in analytical awareness of the nature of the creative process involved in human cognition. For it is in this citadel that science and technology have already established themselves in their manipulation of the new media.

This passage is revealing on several counts. McLuhan is by no means abandoning the question of values, yet his humanist plea ("the inspection and defense of all human values") follows a rare admission that the world has changed ("much that was actually happening") and the conclusion that a new strategy of critical awareness to address the new media of sight and sound thus must be devised.

The Mechanical Bride announced that moral indignation was a poor guide to the apparent chaos of popular culture. But now McLuhan goes further, opposing the Hollywood morality code and what he considers to be other examples of misperception of the meaning of new media culture by those under the spell of the culture of print. He is on the attack. The defenders of book culture, charges McLuhan, have never considered

any of the media as art forms, including books (*Sight, Sound and the Fury* 1954, 495). Having found his subject, McLuhan recommends, "it behooves us to consider the whole process of magical transformation involved in the media acutely and extensively" (ibid.).

In "Third Program in the Human Age" (*Explorations* 8) McLuhan summarizes one of his major intellectual contributions, the recognition that: "The alchemy of media between themselves and upon their audiences is a totally unexplored subject. But why should it be doubted that radio and TV will transform prose and verse styles? Or how could anybody, in view of the history of such transformations, wish that they would cease to affect language and expression?" (17)[16]. This point is crucial, for McLuhan asserts that any shift in the techno-cultural environment will resonate throughout the means of cultural expression. Following the example of the Symbolists and modernists such as Joyce, Lewis, and Eliot, who responded to the forms of industrial culture and the popular media of their day, McLuhan probes how the perceptual process and culture itself is engaged and shaped by new post-mechanical, post-literate or electric media.

After *The Mechanical Bride*, McLuhan insists that premature moralism, the question of whether new media are a good or bad thing, prevents serious understanding or insight into contemporary developments. Unlike most educators writing in the mid 1950s, he does not take the question of new media, notably television, as the pretext for a sermon or diatribe. Instead, he announces in 1955, "today we are living in what is in many ways the greatest period of culture in the history of the world. The auditory and oral heritages of some cultures are being poured through the visual traditions of other cultures to the enrichment of all" ("A Historical Approach to the Media" 1955, 110). Again McLuhan has gone beyond Innis, for it is in the hybrid forms of these oral and visual media that he finds cause for optimism.

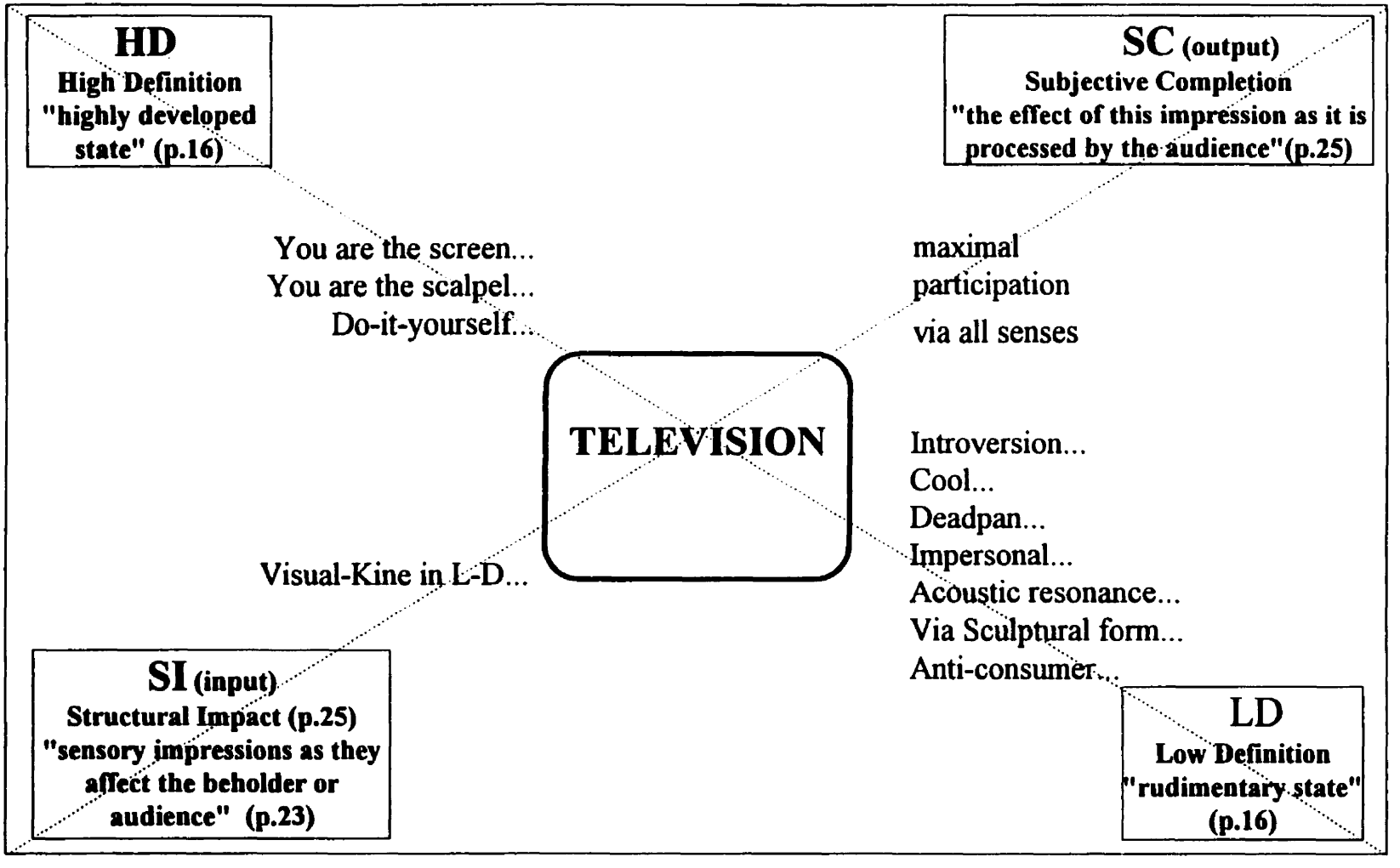
The theme of the linkage of education and media deepens over the decade as McLuhan makes the connection between the formidable educational powers of new media and the need for new counter-strategies, as he had done previously in *The Mechanical Bride*. But he warns: "Unfortunately for the direction and control of

education [a] literary bias is quite unable to cope with the new `images' of the postliterate age. As a result of our using literary lenses, the relevant new data have escaped our scrutiny" ("Myth and Mass Media" 1960, 297). Like the trivium, which McLuhan now regards as a curriculum devised when oral speech culture was overwhelmed by written literacy based on the alphabet, and like the humanist curriculum, devised by Erasmus at the time of the introduction of the printing press, McLuhan argues that educators must devise counter-environments in response to new media. The challenge is great, but again McLuhan finds promise in the situation: "We could do for the classroom of our century what Erasmus did for the classroom of his time. We could make it the matrix of a cultural flowering much greater than that of the Elizabethan Age" (ibid.).

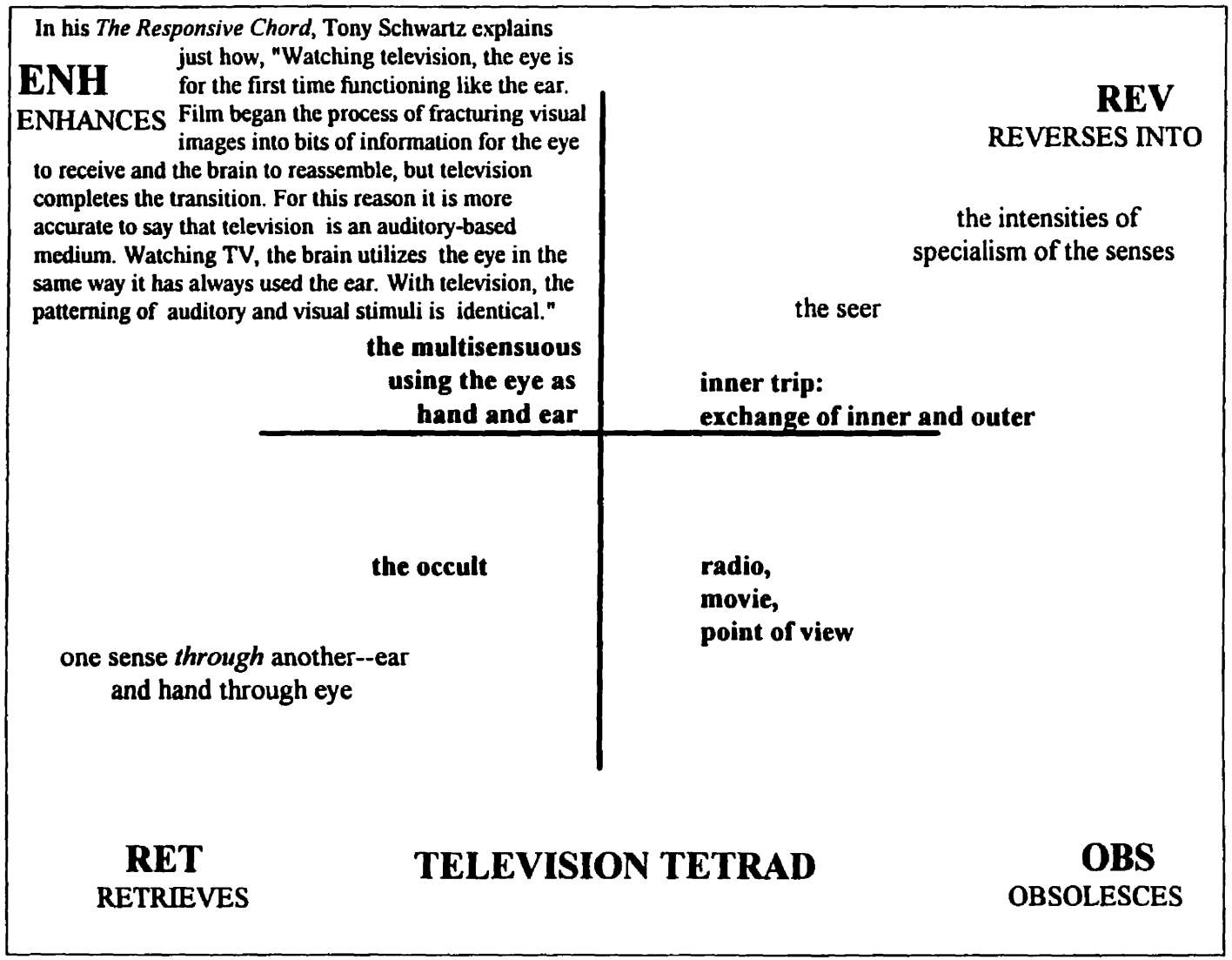
In *Explorations* 6, McLuhan concludes, "It is now obvious that as all languages are mass media, so the new media are new languages. To unscramble our Babel we must teach these languages and their grammars on their own terms." The nature of the link between new media and education is now through language. The rhetoric and grammars of the media can be mastered and taught. Here is where perceptual training to cope with the new media can begin.

As the phrase "all languages are mass media, so the new media are new languages" shows, McLuhan's developing formalism operates on structural principles that are at once rhetorical and grammatical. The statement, "All languages are mass media, so the new media are new languages", is a case of "chiasmus" or inverting the order of repeated words or phrases. The term derives from the Greek letter x, in which there is an ABBA pattern of mirror inversion (Lanham 1991). Very common in McLuhan's writing and reasoning, chiasmus sets up internal analogies, and eventually will be linked by McLuhan to formal causality, and provide a form for the tetrad.

Later in the decade these key themes of language, landscape, popular culture, education, and mass media converge in the essay, "Myth and Mass Media" (1960). By



Source: Page references are to McLuhan's definitions in *Report on Project in Understanding New Media* (1960)



source: *Laws of Media*, (1988, 158-59)

refocusing his literary themes within cultural history, McLuhan has found a way to present his conclusions regarding the contemporary environment:

> [W]hereas external landscape has been abandoned for inner landscape since Rimbaud, Madison Avenue clings to the earlier Romantic concept of consumer control by means of externally arranged scenes. The recent flutter about `subliminal' advertising indicates the delayed shift of attention from outer to inner landscape that occurred in many of the arts in the later nineteenth century. And it is this same shift that today focuses attention on myth in all its modes. For myth is always a montage or transparency comprising several external spaces and times in a single image or situation. Such compression or multilayering is an inescapable mode of the electronic and simultaneous movement of information, whether in popular media or esoteric speculation. It is, therefore, an everyday occurrence for academic entertainment to stress `content,' while displaying complete illiteracy with regard to media old and new. For we have now to possess many cultural languages for even the most ordinary daily purposes. (1960, 298)

Far from determinism or passivity, McLuhan regards his stance as that of the humanist dedicated to critical awareness and autonomy. Critical awareness may take many forms. McLuhan stressed as possible avenues art, counter media diets, such as print to counteract electric media, and rigorous perceptual training. He spoke widely during the 1950s and 1960s recommending media education as a cultural strategy. He often recommended that the young be engaged as co-explorers in this discovery process. He did not consider that the outcome of media effects was inevitable.

> We can, perhaps we must become the masters of cultural and historical alchemy. And to this end we can, I suggest, find means in the study of media as languages and languages as myths. For our experience with the grammar and syntax of languages can be made available for the direction and control of media old and new. (1960, 299)

Project in Understanding New Media

At the end of this Explorations Phase, McLuhan accepts an invitation to spend a sabbatical year probing the topic of new media and education. His assumptions regarding the state of media studies in 1960 are revealing: "(a) that nothing had yet been done to bring understanding to the effects of media in patterning human association, (b)

that such understanding was quite possible; media assumptions do not have to remain subliminal, (c) that the absence of such understanding was eloquent testimony to the power of media to anaesthetize those very modes of awareness in which they were most operative." (*Project in Understanding New Media*, 3-4) McLuhan's methods instead are rhetorical and grammatical, which is to say he engages in dialogue with those whom he considers on the front lines of the latest developments, from the schools and the business world, and to read intensively and reflect upon the history of specific media. His sources reflect his literary training and the aesthetic approach to cultural history that he has spent the decade working out, but, in the manner of encyclopaedic humanism, he is prepared to draw insight from all sources regardless of discipline. McLuhan draws on the insights of physiology and perceptual psychology. His definition of media is now very broad, including, for example, the automobile, and reflects the emergence of this core themata following contact with the work of Innis, and the development of his thinking on the metamorphic powers of new media over the decade. The strategy animating his study of media effects is consistent with the discoveries of the Early Phase, based on the insight that it is necessary to consider not the content but the forms and dynamics of media. By now he is convinced that current (1959-1960) cultural conditions have been transformed in line with his insight into the changed historiographic patterns: "The movement of information at approximately the speed of light has become by far the largest industry of the world" and, in the electronic age, "the globe has become a tiny village."

The *Report on Project in Understanding New Media* summarizes the themes he has pursued over the decade, and serves as a point of departure for all his subsequent work. He poses his key question at the outset: "Why have the effects of media, whether speech, writing, photography or radio, been overlooked by social observers through the past 3500 years of the western world?" If he can answer this question, he can account for Innis's "bias of communications." The answer lies in the "power of the media themselves to impose their own assumptions upon our modes of perception" (*Report on Project in*

Understanding New Media 1960, I-1). For support in his growing interest in the effects of media on sensory life and perception, he begins with Wolfflin's dictum: "the effect is the thing that counts, not the sensuous facts." The report is deeply indebted to Ernst Gombrich's *Art and Illusion*, which he recommends as required reading for all media students. The attraction is that Gombrich has combined a history of artistic technique with application of scientific findings in the psychology of perception.[17] He adopts a mosaic approach because, as he writes citing von Bekesy, when the framework is uncertain and the number of variables is large "the mosaic approach" is the only relevant approach, as artists and physicists since Cezanne have shown. Today, under electronic conditions, "lineal perspective and pictorial organization cannot cope" (ibid., III-2-3).

McLuhan combines the insights of Innis, Gideon and others, adds his inspirations in cultural, literary and art history, and focuses on the historical emergence of media considered broadlyA major discovery that now supplies a focal historical theme for McLuhan's emergent theory of techno-cultural transformation is the special significance of the phonetic alphabet and the parallel development of Euclidean space. He departs significantly from Innis in this conclusion. In the original, McLuhan capitalizes his conclusion for emphasis:

> "The phonetic alphabet alone, of all forms of writing, translates the audible and the tactile into the visible and the abstract. Letters, the language of civilization, have the power of translating all of our senses into visual and pictorial space." (ibid., I-18)

The core dynamic for his developing theme of transformation focuses increasingly on "extension" and "translation," as indicated in this paradigmatic statement of his theory to this point:

> Just as all media, including speech, are technological extensions of our various senses, so the communal processing of these extensions of our senses is that which drives the various media through their numerous phases of transformation. And just as our individual experiences of our individual senses get processed by some sort of inner common sense which gives unity to the diversity of our sensations, so with the media as extensions of our senses. These cooperative technological extensions of ourselves undergo a social or communal processing which gives them

> unity, and which ensures also that they will always be changing their forms as they continue to inter-penetrate and to "translate" into one another. (ibid., I-18)

He adopts the term "extension" for a key insight into the core dynamic that he has arrived previously, and also what he considers to be corroboration, in anthropologist Edward Hall's *The Silent Language* (1959). McLuhan had discussed an "ablative" function in correspondence with Walter Ong, which he defined as a process of "outering" or "uttering"; however, Hall used the term "extensions" to refer to a similar process, in his influential work on the invisible spatial and customary ground rules of cultures.

Early evidence that McLuhan intends from the outset to develop his themes into a distinctive theory can be found in the *Report* section, "General Introduction to the Languages and Grammars of the Media," where McLuhan writes that his studies have led to "the discovery of basic laws concerning the sensory effects of various media" (1960). McLuhan is now combining his insights into the core dynamics of transformation, such as in the quotation above, and his abductive propositions on understanding media. A good example surfaces in his conclusion that "[o]ne medium always exploits another when possible. It seems to be a basic human impulse to translate one sense into another, and one medium into another" (*Project in Understanding New Media* 1960, III-111). McLuhan continues to refine his formulation of this idea of a continuous transformation by means of a translation process. These emergent themata will be taken up next, in the Catalyst Phase discussion.

In the *Report on Project in Understanding New Media* he illustrates his findings with four-part ideograms of the operations of media reception,[18] and each medium discussed has a chart which is presented with commentary. The four-part diagrams are compressed visualizations of the core dynamic at work (Illustration 5, 6), and represent prototypes for the later tetrad form. His chief discovery at this point is the distinction between the sensory impression (also called the structural impact) conveyed by the specific medium in question, and the sensory completion, or beholder's share in reception. So, for example, McLuhan observes that radio presents the auditory in high definition, but the

sensory effect obtained is intensely visual. Radio plays to the mind's eye. The structural impact, meaning the sensory impression on offer, is not identical to the sensory effect experienced by the audience member. The other two terms that complete the four-part diagram are high and low definition, which will soon be transmuted by McLuhan into his distinction between hot (meaning high definition) and cool (low definition) media, which respectively discourage and encourage audience participation (ibid., III-128). In this formulation, McLuhan works with an interaction between two dyads: sensory environment and sensory interiorization, and the open or closed properties of media. McLuhan expresses a debt to the sponsors of the *Report on Project in Understanding New Media* for urging him to find a way to develop testable hypotheses for media research (ibid., I-3): "These resulting hypotheses now appear in connection with the media charts submitted in this report." This seems a prelude to the task that leads to the Last Decade's announcement of the laws of media. In fact, McLuhan consistently called for intelligent empirical work to test out his ideas. He was in principle always committed to research, and some initiatives, such as a sensory study of Greece before and after the national introduction of television, were ideas ahead of their time.

Project in Understanding New Media includes the results of a media experiment done in 1954 in Toronto, in conjunction with the Culture and Communications seminar, and a later retest conducted in 1956. The original report on the experiment is qualified, as it is conducted as a kind of pilot project (C. Williams in *Explorations* 3); however, the *New York Times* had written up the earlier findings that television and radio (in that order) out-performed print in student retention of a lecture. Repeated eight months later to the same participants, the same order of media effectiveness in inducing retention was found. The 1956 test jazzed up the presentations, using visuals, for example, for television, and this time radio outperformed television. No fully scientific generalization was possible, but this attempt at empirical testing indicates to McLuhan the merit of further study of the respective properties and powers of each medium, and that such a study need not focus solely on content (*Project in Understanding New Media* III,

141-70; Carpenter in Carpenter and McLuhan eds. 1960, 178-79).[19]

His thematic linkage of media and language serves as an unusual source of insight. He believes that one test of his hypotheses in the media charts could be undertaken using Charles Osgood's approach in *The Measurement of Meaning* (1957), which taps ordinary language as a reservoir of collective observation (*Report on Project in Understanding New Media* 1960, I-18). To this end, McLuhan finds clues to the transformative effects of new media in the language of metaphors and slang, such as "wireless" for radio or "horseless carriage" for automobiles. Citing Thomas Edison's inability to foresee or accept the phonograph's use for entertainment, McLuhan concludes that the circumstances of adoption of new technologies provide insights into the core dynamics and historiographic patterns:

> These types of initial confusion are of the utmost value in providing clues to the grammars or structures and patterns of the existing situations which the new medium was about to transform. It will be many years before analysts and historians, capable of using such clues, have taken up the job of popular cultural history. Even such a concept as "popular" or "entertainment" or "mass media" provide valuable clues to the cultural assumptions of our own world... For these terms are loaded with distrust and disapproval of the very things we are doing to ourselves by means of our own technology. Increasingly we come to confront ourselves, when we are confronted by change in our institutions. (ibid., III-108)

At the end of the Explorations Phase, McLuhan devises various narratives to express the meaning of the large-scale techno-cultural transformations he believes he is diagnosing. He finds one in "the mystery of the rise and fall of Western man, the mystery of his detribalization by literacy and his retribalization by electric communications" (ibid., 5). He finds another in the darwinian media struggle for survival of the fittest, as noted above. McLuhan consistently varies his speculations on the meaning of history, however it is apparent that he does not consider history as a linear story of evolutionary progress. Instead, he regards the notion of a return, or Vico's ricorso as a possible model. However, scrutiny of his work makes plain his conclusion that the return of a previous cultural condition--orality and tribalism for example--will not take an identical form to

its predecessor. He repeats on numerous occasions that post-literacy will resemble but will not be synonymous with pre-literacy.

An earlier paper delivered by McLuhan on "New Media, New Education" and appended to the *Report on Project in Understanding New Media*, further establishes the prominence of the thematic linkage of media and education that has emerged during the Explorations Phase.[20] He writes:

> The electronic age abandons mechanism for the movement of light and information only. Viewed in the crudest quantitative terms, the shift from mechanism to electronics presents the character of total revolution. It is inconceivable that school and society alike should not receive the full impact of this change." ("The New Media and New Education" 1960, 182.)

In a revealing aside, McLuhan the pattern watcher drops his impassivity and confesses: "Personally, I feel quite helpless and panicky as I contemplate the range of new assumptions and frames and parameters which our new technology has imposed upon us." In his conclusion he issues a strong call for media study, but he is not optimistic about the educational establishment's willingness and ability to meet the challenges of the electronic age. The only exception to this rule is Harold Innis." Why should we understand new media when no generation of the western past has understood all media? However, now that we have begun to understand all media for the first time (see H.A. Innis, *Empire and Communications*) there is the outside possibility that we might decide to consider them as fit objects of study and control" (ibid., V-4-5). McLuhan singles out an innovative secondary school teacher's approach to media study as offering a model kind of dialogue with her students, so that her students' experiences could find a place within the classroom. Yet his growing ambivalence towards the academy and its ability to respond to the challenge of new media pervades the *Report on Project in Understanding New Media*. His contacts with management consultants and former philosophy professors, Bernard Muller-Thym and Peter Drucker, contribute to a hardening of his opinions on the openness of the business community versus the closed mindedness of the academy. He concludes: "Education follows behind commerce in

leadership." (ibid., II-4) "Educators present a uniform, homogeneous front of somnambulism" (ibid., III-8).

McLuhan's genius as a rhetor ignites at the end of the decade when he invents both of his master phrases while he is at work on the *Report on Project in Understanding New Media*. In 1959, in conversation he formulates "the medium is the message" at a gathering in British Columbia, as recalled by communications educator Alan Thomas (Nevitt and M. McLuhan 1994). He concludes in *Project in Understanding New Media* (1-18): "This revolution [resulting from electric modes of moving information] involves us willy-nilly in the study of modes and media as forms that shape and re-shape our perceptions. That is what I have meant all along by the medium is the message--for the medium determines the modes of perception and the matrix of assumptions within which objectives are set." In 1959, he first articulates the idea that under electric conditions, the world becomes a tiny village, and in *The Gutenberg Galaxy* (1962) modifies the phrase to the "global village." Later, in the *Laws of Media*, McLuhan acknowledges Hawthorne's anticipation of this idea in his response to the introduction of the telegraph, characteristically regarding this as confirmation of his ideas.

Catalyst Phase

> "The 'common sense' was for many centuries held to be the peculiar power of translating one kind of experience of one sense into all the senses, and presenting the result continuously as a unified image to the mind. In fact, this image of a unified ratio among the senses was long held to be the mark of our *ratio*nality, and may in the computer age easily become so again. For it is now possible to program ratios among the senses that approach the condition of consciousness. Yet such a condition would necessarily be an extension of our own consciousness as much as wheel is an extension of feet in rotation." --McLuhan (*Understanding Media* 1964, 60).

In the Catalyst Phase, dating from 1960 to about 1970, McLuhan shapes his ideas into publications, which in 1965 catalyse a firestorm of global debate and enthusiasm. His experimental prose appears in his best known books, *The Gutenberg Galaxy* (1962)

and *Understanding Media* (1964). Institutionally, McLuhan teaches English literature at St. Michael's College, and operates during the Catalyst Phase from the University of Toronto's Centre for Culture and Technology, which is established for him in 1963 with the support of his friend, Claude Bissell, president of the University of Toronto, and Ernest Sirluck, the new dean of the School of Graduate Studies,. He is "discovered" by U.S. and British intellectuals, journalists, and advertising executives, and becomes an intellectual celebrity. Father John Culkin recalled his surprise at McLuhan's request in 1963 for a letter for the University of Toronto president in support of the significance of his work (Sanderson and MacDonald 1989, 99). Raising research funds from scholarly sources proves difficult, so with the help of associates and a public relations agent, he seeks funding from corporations and individuals. He spends one highly publicized year in New York at Fordham University in 1967-8 as the invited Schweitzer professor of humanities, with a $100,000 grant. He hires his former colleague and editor of *Explorations* the anthropologist Edmund Carpenter, and his collaborator, the painter and museum curator, Harley Parker as part of the contract. His stay is interrupted by a seventeen hour successful operation to remove a brain tumour. Upon his return to Toronto in 1968, he continues to publish books and articles and to hold court in the new headquarters for his Centre, an antique Coach House on the University of Toronto's east campus. Collaborations with designer Jerome Agel and editorial coordinator Quentin Fiore produce two visually sophisticated and unorthodox books, *War and Peace in the Global Village* (1968) and *The Medium is the Massage* (1967). He engages public relations agent Matie Molinaro to assist him with managing his career. The decade begins with an occasional mimeograph sheet designed for rapid circulation of key insights, an idea similar to one he proposed to Harold Innis in 1951. The Catalyst Phase ends with a paid subscription newsletter, the *Dew Line*, with similar goals, but a different target audience, which he writes and son Eric edits at the instigation of a New York impresario. All the books published in the early 1970s are under way by the late 1960s.

During this Catalyst Phase, he extends the insights into techno-cultural transformation that he articulated in the *Report on Project in Understanding the New Media.* McLuhan's name becomes indelibly linked with the topic media with the publication of *Understanding Media.* Following a retracing of the thematic commitments and development of McLuhan's theory of techno-cultural transformation in *The Gutenberg Galaxy* and *Understanding Media*, a summation of McLuhan's expansive use of media can be offered.

During the Catalyst Phase, McLuhan continues to build upon and go beyond Innis in three crucial respects. First, he finds support in a wide variety of sources for his conviction that the Greek (phonetic) alphabet represents a decisive innovation in the shift from orality to literacy. Innis had concentrated on the bias of communications associated with writing, but did not accord the alphabet the significance McLuhan assigned it.[21] This means that McLuhan's master historiographic pattern differs from that of Innis, who wrote: "We can conveniently divide the history of the West into the writing and the printing periods" (1950, 5). After the publication of *The Gutenberg Galaxy*, McLuhan finds corroboration for his ideas in Eric Havelock's *Preface to Plato*, (1963) which he refers to thereafter.

Second, he further transmutes Innis's emphasis on space and time and on media as staples. He stresses the history of artistic insight as a means of probing cultural transformation. Eventually he locates his core dynamic for cultural change in sensory organization patterned by relationships with dominant media. The theory, which will be further developed below, is that all media and technologies are extensions of human organs or functions. Simultaneously, an interiorization occurs, and the process of translation within and without processes the collective sensoria and further transforms the environment. At the point of saturation of a media form, McLuhan concludes during the decade, a flip or reversal into an opposite form occurs. The balance that Innis sought between space and time-oriented media, McLuhan seeks in the rebalancing of all the senses within individual sensoria and the collective sensus communis. Translation

among acoustic, visual, and other sensory modalities occurs continuously, but the dominant sensory balance in any culture reflects the influence of dominant and hybrid media. The dynamic life of forms apperceived by McLuhan discloses a cultural and media ecology that McLuhan refers to variously in his work (e.g., *Understanding Media* 1964, 199). It indicates a kind of media diet, a balancing or equilibrium of media and cultural life, which may be filled with harmony or conflict but which is nonetheless in constant flux. This resembles Innis's stress on balance; but McLuhan is ambiguous on this point, in keeping with his strategy of keeping his own value judgements out of his diagnosis. He makes no plea for time and the oral as did Innis. In exasperation at the accusation that he was an enemy of the book, he said once that he personally favoured a print-based culture; however, this was not relevant to the task of evaluating what was in fact the state of the techno-cultural condition. Elsewhere, McLuhan speaks of the prospect of controlling media and the sensory life of populations as one would adjust a thermostat. McLuhan offers a variety of answers on the question of a strategy for culture.

Third, as noted previously, he concludes that Innis missed the fact that electrification represents a different sort of development, distinct from mechanization. As an example, McLuhan discusses the distinction between film and television, profoundly different media forms. Television, it seems to McLuhan, represents an electronification of culture which is post-mechanical and which signals new developments, in that the mobile pattern of electrons on the screen is composed in the perception of the viewer. The eye is like a touching hand, an aural-tactile retina of the mind where the viewer is the screen, whereas movies rapidly unreel repeated images mechanically one after another. In an unprecedented manner, under electronic conditions, the central nervous system itself is externalized. He is indebted to J.Z. Young (1961) for this insight, commenting in *Understanding Media* that Young's book, *Doubt and Certainty in Science*, offers a "view of the central nervous system as a new model for understanding electric technology"(364). This conviction that electronic media represent a further shift in the "evolution of media forms"--a core theme of his theory of mediamorphosis--leads him to

perceive a fresh set of problems for media study, and to consider further the wider cultural consequences of electronic conditions. This he does in his books and essays throughout the decade.

He arrived at this insight by juxtaposing reflection on the contemporary electronic period with the pre-literate past, in particular with what he perceives to be the rise of auditory and decline of typographic sensibility. From these reflections he draws an analogy with the previous key shifts. He calls attention to the historical roots and consequences of "electrification" and "electronification" of new media, including the telegraph and telephone in the nineteenth century, and extending to radio, television, and later computers in the twentieth century ("A Historical Approach to the Media" 1955, 109-10; "Educational Effects of the Mass Media of Communication" 1956, 401-03; *War and Peace in the Global Village* 1968, 35). Although he is committed to a multi-sensory approach, and explores the unified tactile sense, he focuses increasingly on the split between acoustic and visual space, which he considers fundamental sensory and psychic biases, and the consequences of dominant eye and ear oriented media forms. His core dynamic operates on the principle that new media and technologies as extensions alter sense ratios.

McLuhan's theory of techno-cultural transformation during this Catalyst Phase can be characterized as "organic formalism," meaning that he studies the structural patterning of the extensions of human senses, organs, and functions by the forms of media and technologies. His study of media effects concentrates on the relationship between the human individual sensorium or collective sensus communis and human-created media and technologies, and he prepares inventories of these effects so as to read their patterns. He disputes the critical tag "technological determinist" and refers to himself as an "organic autonomist" in an interview with Richard Kostelanetz (1967). During the decade he seems as interested in the question of the historiographic patterns as he is in the core dynamics. This begins to change at the end of the decade, as his preoccupation with the core dynamics grows.

McLuhan's three early thematic strands have branched profusely and are now thoroughly integrated into his emergent theory. He makes a contribution to cultural history and media study in a recognizably McLuhanesque style, and provokes controversy while stimulating many to think again about media and education. McLuhan becomes an occasional media pundit, commenting on diverse events, such as the TV coverage of the Kennedy funeral, the Nixon-Kennedy political TV debates, and modern sex. He has become part of popular culture, and begins to treat the McLuhan of "McLuhanism" as an iconic entity, in the third person. He includes a *New Yorker* cartoon as a self-satire at the end of *The Medium is the Massage* (1967). He denies that he could ever be a McLuhanite (Stearn 1967, 291). Nevertheless his core themata and incessant disciplinary border crossings remain constant. He says of his work in a 1967 interview: "I'm looking in the rear-view mirror of Joyce, Carroll, the Symbolists, Adolph Hildebrand.[22]They related the sensory life of metamorphosis and transformation in contact with new technology" (Stearn 1967, 272). McLuhan develops the themes that will emerge as a recognizable theory of mediamorphosis over the decade.

The Gutenberg Galaxy

Ten years after the idea occurred to him, The Gutenberg Galaxy: The Making of typographic Man is published in 1962 and in 1965 in the United States. In his most polished book, McLuhan applies the "mosaic pattern of perception and observation" or field approach for the purpose of "revealing causal operations in history." He comments in a letter to Kermode that *The Gutenberg Galaxy* could be reduced to an ideogram (Stearn 1967, 287). *The Gutenberg Galaxy* establishes that McLuhan is engaged in a practice of communications history, inspired by Innis and directly challenging conventional historiography. He believes he has discovered a master historiographic pattern of techno-cultural transformation and some of the core dynamics that illuminate its operations. He presents a literary and macro-historical argument with multiple facets and copious sources.[23] Cezanne's mosaic planes are translated onto the post-Gutenberg page.

The virtue of the book, which will prove an anathema to specialists, lies in McLuhan's scope. Drawing on an archive of seemingly unrelated scholarship, including his own, he traces his general themes across a wide expanse of cultural history, returning to the Greeks, adding anthropological findings on non-literate societies, adding work on medieval scribal culture, continually layering until in mosaic fashion a master historiographic pattern becomes evident: oral culture gives way to literate culture, which is residually oral up until it is superseded by typographic culture in the wake of the printing press, which itself is challenged by the rise of electric media, beginning with the telegraph. *The Gutenberg Galaxy* represents his contribution to reorganizing the imaginative picture regarding media, culture, and technology. It confirms the fertility of Innis's approach to communications history. It recasts the orality-literacy problem (Havelock 1986, 25). Finally, it announces the communications history tradition, if not by name, and in retrospect will be recognized as one of the enduring works of the Toronto School of Communications.

McLuhan is quite aware that these three mediamorphic shifts in modes of communication do not contain all possible factors in technological, much less cultural change. Otherwise, for example, why would he refer repeatedly to Lynn White Jr.'s (1962) interpretation of the impact of the stirrup in *Medieval Technology and Social Change*, and to many other historical examples of techno-cultural effects, as had Innis before him? His exaggerated emphasis is designed to redress the conventional neglect of a basic aspect of historical change--the powerful shaping effects of communications media and technologies--and he insists on their fundamental place in any adequate account of historical and cultural change. However, as he notes playfully in introducing his general theory: "The Gutenberg Galaxy at least attempts to supply the `one thing we do not know.' But even so, there may well prove to be some other things!" (*The Gutenberg Galaxy* 1962, 11-12). Unfortunately for McLuhan, irony is a risky genre in scholarship and abductive theory cannot satisfy the criteria of conventional theorizing. He notes more earnestly: "Far from being deterministic, however, the present study will,

it is hoped, elucidate a principal factor in social change which may lead to a genuine increase of human autonomy" (Ibid., 11).

McLuhan traces "the ways in which the forms of experience and of mental outlook have been modified, first by the phonetic alphabet and then by printing" (*The Gutenberg Galaxy* 1962, 9). Drawing on the work of Millman Parry and Albert Lord, McLuhan diagnoses the shift from what he calls oral to literate culture, extending Parry's work on oral and written poetry "to the forms of thought and the organization of experience in society and politics" (ibid.,9). This is the boldness he grasped in Innis, Giedion, Burckhardt, Huizinga, Mumford, and others. He will not restrict his scope to literature or the arts, but rather intends to include symbolic and material culture within his account. Convinced (as indicated in *Project in Understanding New Media*) of the significance of literacy based on the phonetic alphabet, his argument now strengthened with further sources,[24] McLuhan ingeniously asserts his case: "By the meaningless sign linked to the meaningless sound we have built the shape and meaning of Western man" (*The Gutenberg Galaxy* 1962, 65). He concludes: "The interiorization of the technology of the phonetic alphabet translates man from the magical world of the ear to the neutral visual world" (ibid., 27).[25] This "interiorization" process becomes a crucial moment in the core dynamic.

McLuhan's thesis work on the trivium has prepared him to attend to the impact of invisible background contexts, and he now examines "the transformation of alphabetic culture by the printing press" (ibid., 65). The book's primary concern is to establish the shift from scribal manuscript culture to the making of typographic man, but it is by comparing the Gutenberg galaxy of the eye and the pre-literate sphere of the ear, that he finds the analogy he requires to illuminate his argument in support of such a techno-cultural shift. After tracing the effects of the alphabet on ancient Greek culture, McLuhan turns to medieval manuscript culture, noting "[i]t was learning from Chaytor [*From Script to Print*] how literary conventions are affected by the oral, written, or the printed forms, that suggested to me the need for The Gutenberg Galaxy" (ibid., 109)[26].

He concludes that changes in technologies within particular cultures are accompanied by shifts in sensory patterns which have moulded human history in invisible ways. The great paradox of technology as an extension of senses in culture is central now to his thesis of transformation, and McLuhan cites biologist J.Z. Young: "it is important to realize that great changes in ways of ordinary human speaking and acting are bound up with the adoption of new instruments" (Ibid., 15). To explain the dynamic of these changes, again, as he had done in *Project in Understanding New Media*, he cites anthropologist Edward Hall's *The Silent Language* (1959) on extensions of the body into man-made material things, conjoining it with his study of art and interest in Thomist philosophy. His own development of this idea consists in the linkage to sensory balancing and translation, as McLuhan writes to Ong in 1961:"The media as extensions of the sense organs alter sensibility and mental process all at once. All the other senses are altered in themselves, and in their ratios among themselves, by any technology that extends or externalizes any one of them. The history of art provides a massive check on this." He continues:

> My theory is only acceptable to Thomists for whom consciousness as analogical proportion among the senses from moment to moment, is quite easy to grasp. But print technology actually smashes that analogical awareness in society and the individual. Mss. technology put it under great strain. But an event like radio or even telegraph has the deepest consequences for the momentary sense ratios of the ordinary person. To understand these it is necessary to know the prior state of sense ratios, i.e. Radio has quite different effects in Germany or Russia than in France or England. And so with film or TV....I am naturally eager to attract many people to such study as this and see in it the hope of some rational consensus for our externalized senses. A sensus communis for external senses is what I'm trying to build. (*Letters* 1987, 280-81)

In 1962, he resumes his discussion of Hall's approach, again finding it parallel to his own. All his media work, he writes Ong, has assumed that technologies extend senses and faculties which are "all acting as separate closed systems that re-enter our sensibilities with metamorphic power...". And he continues: "But who else assumes this approach? The orientals only? Is it not the approach from formal cause?" In a "sheet" on

"The TV Image: One of Our Conquerors" from 1962, which he sends to Ong, McLuhan advances ideas that will predominate in the Last Decade: "Walter, it's about time that we did something for philosophy in regard to `touch', that `interface' transforming moment when the sensus communis translates one mode into another. Our media now do this outside us and thus calls urgently for an outer consensus of media proportioned to the proportional ratios of consciousness" (*Letters* 1987, 287).[27]

In his search for a formulation, McLuhan adapts this key term, the sensus communis (Ibid., 132)--an ancient term used also by Vico--which stresses the simultaneous interplay among the active senses that formed a kind of reason. McLuhan's use of the term is also influenced by the Thomists, and he relies upon a history of the concept in the Greek and Arab world, from Ryan's *Role of the Sensus Communis in the Psychology of St. Thomas Aquinas* (1951). McLuhan believes that entire cultures have performed experiments on the collective psyche or body, transforming the sensus communis in the process, and he casts himself in the role of observer of those vast cultural "experiments." In McLuhan's work the sensus communis is a complex field which manifests itself at the collective level. His concern is both with the private wit, and with the collective patterns of association. Hall's work was important in part because it reinforced McLuhan's insight that sensory life includes gesture and extensions of the body, and that all experience cannot be reduced to language, nor to consciousness. Eventually, an earlier formulation by Ralph Emerson that the body is the magazine of inventions, seemed to have anticipated both Hall and McLuhan. Hall emphasized the extensions of ourselves and how the consequent invisible ground rules operate within cultures (Ibid., 13). McLuhan argues that new media alter the ratio of all the senses, including the body-based sense of touch, in a dynamic and interactive fashion.[28]

McLuhan cites Leslie White's *Science of Culture* (1949) to link this notion of extensions to that "outering or uttering of sense which is language and speech..." (*The Gutenberg Galaxy* 1962, 13). Central to McLuhan's comprehension of the techno-cultural transformative process itself is his particular approach to language, metaphor,

translation, and his broad use of media. McLuhan presses his argument into a general proposition regarding the core dynamic, which requires full quotation and discussion, because he endorses it sufficiently strongly to reprint it almost identically in *Laws of Media* (1988, 225-26):

> Language is metaphor in the sense that it not only stores but translates experience from one mode into another. Money is metaphor in the sense that it stores skill and labour and also translates one skill into another. But the principle of exchange and translation, or metaphor, is in our rational power to translate each of our senses into the others: this we do every instant of our lives. But the price we pay for special technological tools, whether the wheel or the alphabet or radio, is that these massive extensions of sense constitute closed systems. Our private senses are not closed systems but are endlessly translated into each other in that experience which we call con-sciousness. Our extended senses, tools, technologies, through the ages, have been closed systems incapable of interplay and collective awareness. Now, in the electric age, the very instantaneous nature of co-existence among our technological instruments has created a crisis quite new in human history. Our extended faculties and senses now constitute a single field of experience which demands that they become collectively conscious. Our technologies, like our private senses, now demand an interplay and ratio that makes *rational* co-existence possible. As long as our technologies were as slow as the wheel or the alphabet or money, the fact that they were separate, closed systems was psychically and physically supportable. This is not true now when sight and sound and movement are simultaneous and global in extent. A ratio of interplay among these extensions of our human functions is now as necessary collectively as it has always been for our private and personal rationality in terms of our private senses or "wits," as they were once called. (*The Gutenberg Galaxy* 1962, 13-14)

This is neither determinism nor passivity. It sounds a clear call for consciousness and action based on critical awareness. The crisis he perceives consists in the tension between the innering private senses in constant creative process, and the outering into closed technological extensions. The speed, simultaneity and global dimension of the newer electric technologies drastically upset the previous ratio or balance. This "extensional crisis" is located in the collective sensorium, or sensus communis. To grasp the significance of this observation requires recognition of McLuhan's particular use of

the term "sense." Following Aristotle and Aquinas, who considered that the sense was a kind of reason, McLuhan arms himself with the principle "that there is a ratio or rationality in the senses themselves" (Ibid., 132). But note that McLuhan's version of the senses is active, not passive. The senses make the world, they extend themselves out into it, and do not simply serve as passive receivers.

Concerned with the power of perception which underlies the power of social and political elites, McLuhan nonetheless addresses social and political organization, from organized armies to the rise of nationalism. Technological changes create the conditions for cultural change and continuity: "The invention of typography confirmed and extended the new visual stress of applied knowledge, providing the first uniformly repeatable `commodity', the first assembly line, and the first mass-production" (*The Gutenberg Galaxy*, 153). Again, diagnosis and description must proceed valuation and therapy and McLuhan does not believe that acknowledging the transformations he diagnoses means approval of them. As he had in his Nashe thesis, McLuhan's role as techno-cultural pattern watcher is to supply the missing context so that we may collectively understand what has been going on.

To see these changes and shifts, to reconstruct this history of cultural metamorphoses, McLuhan requires a critical historiography. He cannot present his discoveries using the rhetoric of history as a tale of great men and their accomplishments or great ideas; nor does he recommend an external history, say of the press or printing press. Instead, he studies history from the inside, through artefacts from architecture to novels to scientific and religious philosophies, so as to juxtapose mosaic style the relationships between changing technologies and sensibilities. Thus Shakespeare's and Platos's texts become archives of the modifications of sensitive minds keenly responsive to changing cultural conditions. Yet, according to McLuhan, before Innis they had been unaware of the precise nature of the causes of major historical changes. A new historiographic method is required, one which regards the traces in all forms of cultural life, including science, as important sources of evidence.[29] Hidden causal operations are

revealed in a "galaxy or constellation of events" and *The Gutenberg Galaxy* concentrates on "a mosaic of perpetually interacting forms that have undergone kaleidoscopic transformation--particularly in our own time." Thematically, the landscape of McLuhan's Early Phase of intellectual production has become a galaxy.

The flaw of previous historiographic method, argues McLuhan, has been to isolate technological events, as classical physics isolated physical events.[30] The patterns are thus rendered imperceptible, yet constitute a gap in historical explanation and understanding. McLuhan argues that this fallacious linear approach and historical "point of view" is an artefact of typography, "and flourishes where the unconscious effects of literacy flourish without countervailing cultural forces" (Ibid., 15). He is using his diagnosis of cultural conditions as a way of explaining rival explanations, and accounting for the neglect of the phenomena of the effects of media and technologies.

McLuhan's diagnosis offers an explanation for the previous neglect: "Perhaps the reason for the omission is simply that the job could only be done when the two conflicting forms of written and oral experience were once again co-existent as they are today." This is an inclusive mode of historiography--one in which the historian of culture's position in a historical form of life is self-consciously implicated within the horizon of what he is enabled to describe. This is also an extension of the tantalizing suggestion of Innis in the *Bias of Communication*. He repeats this idea, which is central to his developing thought: "And, as usual, when some previously opaque area becomes translucent, it is because we have moved into another phase from which we can contemplate the contours of the preceding situation with ease and clarity. It is this fact that makes *The Gutenberg Galaxy* possible to write at all" (Ibid., 326).

Following Innis, McLuhan postulates great divides, but these discontinuities do not stem from media properties of time and space extension, as with Innis; rather, media and technologies are extensions of senses, organs, and functions. Alteration in the dominant media and technologies changes the ratio and balance among all the senses, and thus alters sensibility. The major discovery of *The Gutenberg Galaxy* is the notion of the

linkage of extensions into dominant media and consequent interiorization. "When technology extends one of our senses, a new translation of culture occurs as swiftly as the new technology is interiorized" (Ibid.,54). "Until now a culture has been a mechanical fate for societies, the automatic interiorization of their own technologies" (Ibid.,95). And, thus, a "theory of cultural change is impossible without knowledge of the changing sense ratios effected by various externalizations of our senses" (Ibid., 56).

McLuhan's hyperbole disguises his developing emphasis on the dynamics of change in a process that is revolutionary but not instantaneous. From a culture based on the ear, the pre literate culture, described by Lord and Parry, he sees writing with its progeny literacy and the phonetic alphabet as resulting in transformative structural changes, invisible to those, even Plato, who live within the form of life shaped by them. McLuhan writes: "My suggestion is that cultural ecology has a reasonably stable base in the human sensorium, and that any extension of the sensorium by technological dilation has a quite appreciable effect in setting up new ratios or proportions among all the senses. Languages being that form of technology constituted by dilation or uttering (outering) of all of our senses at once, are themselves immediately subject to the impact or intrusion of any mechanically extended sense" (Ibid., 48). Printing, or the mechanization of the word, breaks down the sensus communis by extending the visual sense and fragmenting the medieval manuscript culture in which silent reading is rare. The ear culture, diminished by literacy is decisively replaced with an eye culture: the visual sense is enhanced, and the oral/aural sense displaced. But these changes do not happen overnight. While those who experience the first onset of a technology, be it alphabet or radio, respond most emphatically, "the initial shock gradually dissipates as the entire community absorbs the new habit of perception into all of its areas of work and association. But the real revolution is in this later and prolonged phase of `adjustment' of all personal and social life to the new model of perception set up by the new technology" (Ibid., 33). In similar vein, elsewhere, he stresses generational change, and concludes that the young are the only natives in a new sensory environment.

McLuhan now adapts his Early Phase emphasis on artistic technique to what he calls "method." He cites Whitehead's judgement that the "greatest invention of the nineteenth century was the invention of the method of invention." To understand the epoch, Whitehead proposed that the details from railways to radio can be neglected so as to focus on the "real novelty, which has broken up the foundations of the old civilisation" (*The Gutenberg Galaxy* 1962, 326-27). Following suit, McLuhan focuses on the Gutenberg "method" of "homogeneous segmentation, for which centuries of phonetic literacy had prepared the psychological ground, that evoked the traits of the modern world. ...It is the method of the fixed or specialist point of view that insists on repetition as the criterion of truth and practicality"(Ibid., 327). The dizzying prospect looms: our epistemology, our notions of truth, all may depend on a particular sensory ratio, which is subject to change. And profound changes are underway, whereby "under electric conditions of simultaneous information movement and total human interdependence", twentieth-century science and art strive for a unique method suited to the new conditions, the method of suspended judgement and the open "field" (*The Gutenberg Galaxy* 1962, 327). Again, McLuhan challenges the logical grounds of "rationality":

> And to speak of the stream of consciousness as unlike the rational world is merely to insist upon visual sequence as the rational norm, handing art over to the unconscious quite gratuitously. For what is meant by the irrational and the non-logical in much modern discussion is merely the rediscovery of the ordinary transactions between the self and the world, or between subject and object. Literary had made of the enlightened individual a closed system, and set up a gap between appearance and reality which ended with such discoveries as the stream of consciousness. (Ibid., 329)

McLuhan warns of a crisis of unprecedented proportions, which brings him back to where he started: "We have no more difficulty in understanding the native or non-literate experience, simply because we have recreated it electronically within our own culture." And he adds significantly, "Yet post-literacy is a quite different mode of interdependence from pre-literacy"(ibid., 60).[31] Here, he can barely (e.g., 159) refrain from leaping ahead to his final section, for his point is precisely that we are enabled to see this great cultural

shift that produced "typographic man" only because the dominance of print has come to an end, and the implications of a new era are dawning to conscious awareness: "The Gutenberg galaxy was theoretically dissolved in 1905 with the discovery of curved space, but in practice it had been invaded by the telegraph two generations before that" (ibid., 301) This sense of the prolegomenon is reinforced by the closing lines of the book:

> What will be the new configurations of mechanisms and of literacy as these older forms of perception and judgement are interpenetrated by the new electric age? The new electric galaxy of events has already moved deeply into the Gutenberg galaxy. Even without collision, such coexistence of technologies and awareness brings trauma and tension to every living person. Our most ordinary and conventional attitudes seem suddenly twisted into gargoyles and grotesques. Familiar institutions and associations seem at times menacing and malignant. These multiple transformations, which are the normal consequence of introducing new media into any society whatever, need special study and will be the subject of another volume on *Understanding Media* in the world of our time. (ibid., 278-9)

Thus McLuhan announces his intention to further explore the core dynamics and the historiographic patterns.

Understanding Media: The Extensions of Man

McLuhan's work on the *Project in Understanding New Media* became the basis for his best-selling work, *Understanding Media: The Extensions of Man* (1964), in which he pursues the questions raised in *The Gutenberg Galaxy*. The metamorphic power of media and technology old and new is the theme. The subtheme is the shift from a mechanical to an electronic age.[32] McLuhan opens with a formulation of the core dynamics and the historiographic patterns. He widens the discussion of media along the lines of *Project in Understanding New Media* discussion of the highway as medium ("the polyantics of the highway") and includes money. He probes the dynamic relationships between culture and 26 figures of media (calling to mind the letters of a new alphabet and ground for a new media trivium) throughout the book. Major themata that recur or are developed in fresh directions can be identified.

1. Environment. Landscape has undergone a metamorphosis in McLuhan's thinking: from the landscape and inscape of literary criticism, to the galaxy in *The Gutenberg Galaxy*. The crucial reformulation of the Catalyst Phase appears in the paperback introduction to *The Gutenberg Galaxy* when McLuhan notes that there might have been some advantage in substituting the word "environment" for the more alliterative Gutenberg galaxy. The principle is ecological: "Any technology tends to create a new human environment....Technological environments are not merely passive containers of people but are active processes that reshape people and other technologies alike" (*The Gutenberg Galaxy* 1962, vi).

2. Media hybrids. McLuhan recognizes certain correlates to his formulation that the medium is the message. One concerns the internal dynamics of the media themselves, and McLuhan concludes that the "content" of a new medium is an old medium which is reprocessed. Early radio took plays as content, television took radio. "Each new technology", he writes, "creates an environment that is itself regarded as corrupt and degrading. Yet the new one turns its predecessor into an art form" (*Understanding Media* 1964, viii). McLuhan illustrates this point. When writing was new, Plato turned the old oral dialogue into an art form; when printing was new, the Middle Ages became an art form as the world view of the Elizabethans; the industrial age turned the Renaissance into an art form, as Burckhardt showed; Giedion in *Mechanization Takes Command* teaches an electric age how to see the process of mechanization as an art process (ibid., viii.). In the television age, Bonanza, a Western or "horse opera", becomes a nostalgic longing for the good old days.

3. Media ecologies. McLuhan's concern is with the psychic and social consequences of the forms as they amplify or accelerate existing processes, not in isolation but rather, in relation to the dynamic environment: "For the `message' of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs" (ibid., 8). In this sense, technology and media are not neutral, but exert effects independently of geography, or the use to which they are put. Yet these effects and the

consequent balance or sensory equilibrium depend on the culture into which media are introduced. "[T]he effect of the TV image" for example, "will vary from culture to culture in accordance with the existing sense ratios in each culture" (ibid., 45).

4. Updating the ideograms from *Project in Understanding New Media.* The interplay McLuhan diagnoses between culture and technology operates at two parallel levels: within sensory life and among the media themselves, for "no medium has its meaning or existence alone, but only in constant interplay with other media" (ibid., 26). Media hot and cool are McLuhan's terms for respectively high definition (filled with data, extending one sense in isolation, discouraging audience involvement) and low definition media, binary terms introduced in the four-part charts in *Project in Understanding New Media.* These descriptions allow him to probe the transformative effects of media, but his objective is not to classify, for hot or cool will vary depending on the postmodern culture and historical moment. In this hot and cool formulation, McLuhan departs further from Innis's emphasis on space-and time-binding media. McLuhan's alternative directs attention to the relationship between media and populace or audience member and thus again moves beyond the restrictive focus on content. McLuhan's point here is that "media as extensions of our senses institute new ratios, not only among our private senses, but among themselves, when they interact among themselves" (ibid., 53) Radio changed the form of the news story; TV caused changes in radio programming, in the newspaper, and in the form of the documentary novel.

5. Reversal of the overheated medium. McLuhan seizes upon a historical moment within the continual transformation of sensory life and the life of media forms. "When all the available resources and energies have been played up in an organism or in any structure there is some kind of reversal of pattern" (30) "The principle that during the stages of their development all things appear under forms opposite to those that they finally present is an ancient doctrine." (34) With this principle McLuhan probes his historical dynamic: "The stepping up of speed from the mechanical to the instant electric form reverses explosion into implosion." McLuhan cites Toynbee's numerous historical examples of reversals; and credits the Eastern classic, the *I Ching, The Book*

of Changes as exemplifying Oriental wisdom on the question of the flip or reversal of form.

6. "Narcissus as Narcosis." McLuhan reinterprets the Greek myth and transmutes it into an explanation for the conventional neglect of the media phenomena he diagnoses.[33] Our sensory extensions numb us, and make us oblivious to their consequences. Narcissus did not fall in love with himself, says McLuhan, but rather with a stranger whom he did not know "was an extension or repetition of himself" (ibid., 42). McLuhan conjoins scientific physiology of the senses and perception[34] to his metaphorical, literary and mythopoeic technique by incorporating into his emerging formulation Hans Selye's discovery of stress. He argues that the stress on the human organism forces it to become unconscious of its own extensions as media and technologies; thus the "principle of self-amputation as an immediate relief of strain on the central nervous system applies very readily to the origin of the media of communication from speech to computer" (ibid., 43) The central nervous system is an electric network that coordinates the various media of our senses, and protects itself from shock or irritation. However, "self-amputation forbids self-recognition."

7. The role of the active human senses in continuous transformation. Always the argument circles back to humanity as the inventor of these extensions. These media do not operate autonomously: so long as we are unaware of their powers and effects, they impose their assumptions upon us; nevertheless "[t]hese media, being extensions of ourselves, also depend upon us for their interplay and evolution" (ibid., 49). William Blake had an entire theory of communication and social change, concludes McLuhan, compressed in his poetic verse, "If Perceptive Organs vary, Objects of Perception seem to vary; If Perceptive Organs close, their Objects seem to close also." Luminously he expresses these difficult observations: "It is this continuous embrace of our own technology in daily use that puts us in the Narcissus role of subliminal awareness and numbness in relation to these extensions and images of ourselves. "By continuously embracing technologies, we relate ourselves to them as servomechanisms" (ibid., 46).

Yet again, McLuhan insists that he is not advancing a determinism because what he describes is only an inevitable fate where awareness is lacking. "Physiologically, man in the normal use of technology (or his variously extended body) is perpetually modified by it and in turn finds ever new ways of modifying his technology" (ibid., 46). "In the electric age we wear all mankind as our skin." (ibid., 47).

8. Media as hybrid forms release energy. "The hybrid or the meeting of two media is a moment of truth and revelation from which new form is born. For the parallel between two media holds us on the frontiers between forms that snaps us out of the Narcissus-narcosis" (ibid., 55).The electric implosion brings oral and tribal ear culture to the literate west, as "electric technology now begins to translate the visual or eye man back into the tribal and oral pattern with its seamless web of kinship and interdependence" (ibid., 50). This is analogous but not homologous to the previous shift from orality to literacy. Electric implosion brings about its own distinctive transformations, its mediamorphosis.

9. Media are languages with material effects. In an electronic age, McLuhan finds it comprehensible that study has turned to the ways in which the medium of language shapes the arrangements of daily life, a subversive notion that communications shape social development as much as do the means of production (ibid., 49).

10. Autonomy not determinism. The increase in human autonomy that McLuhan promised from the outset, in contrast to technological determinism, comes from understanding media as extensional environments and their transformative powers (ibid., 51). This is a situation fraught with conflict and promise. The exercise of will (or the imitation of great men) will not serve as a cultural strategy; instead, McLuhan calls for the "adequate perception of situations" (ibid., 70). Looking in a rear-view mirror will fail. "The implosion of electric energy in our century cannot be met by explosion or expansion, but it can be met by decentralism and the flexibility of multiple small centres." (ibid., 71). The dangers are also great: Western societies face a challenge, and risk collapse.

11. Crucial role of the artists and arts. Awareness by artists of the early implications of media effects, and the prospect of perceptual training in the arts offer ways to break the "narcissus narcosis" spell. As Ezra Pound put it, the artist is the antenna of the race. Wyndham Lewis said the artist is the only one who is writing a detailed history of the future, because he grasps the present clearly. The artist similarly for McLuhan is a man of integral awareness. Continuing his ecological notion of creative inner and outer balance, he concludes that, "in our age artists are able to mix their media diet as easily as their book diet." (ibid., 53). The artists can serve as a kind of distant early warning system for society.

12. Media as environments demand creation of counter-environments for human survival. Counter-strategies emerge among the artists at moments of saturation, as with Lewis Carroll's *Alice's Adventures in Wonderland* in the Victorian age, or Blake's counter-strategy for "single vision and Newton's sleep." The artists create counter-environments so that we may perceive these new environments--necessary because, as E.T. Hall has shown in *The Silent Language*, we are never aware of "the ground rules of the environmental systems or cultures." Now however, "technologies begin to perform the function of art in making us aware of the psychic and social consequences of technology" because technologies and their consequent environments succeed each other so rapidly. Yet art as anti-environment is needed as a means to train perception and judgement. "Media study at once opens the doors of perception." and "[M]edia study considers not only the "content" but the medium and the cultural matrix within which the particular medium operates". The young have a significant role to play as part of a strategy of cultural response that must include art and the educational system. "In the electronic age, data classification yields to pattern recognition" which means, as Poe's mariner in the maelstrom discovered, that it is necessary to study configurations, in particular (this is 1964) those patterns imposed by TV, which is "environmental and imperceptible, like all environments." Democratically, everyone is invited into this vortex.

13. Beware ignorance of the power of media forms. McLuhan has not abandoned his wariness about the commercial media on offer [harking back to *The Mechanical Bride*] and expresses his point in satirical style:

> Once we have surrendered our senses and nervous systems to the private manipulation of those who would try to benefit from taking a lease on our eyes and ears and nerves, we don't really have any rights left. Leasing our eyes and ears and nerves to commercial interests is like handing over the common speech to a private corporation, or like giving the earth's atmosphere to a company as a monopoly. ...As long as we adopt the Narcissus attitude of regarding the extensions of our own bodies as really out there and really independent of us, we will meet all technological challenges with the same sort of banana-skin pirouette and collapse.
>
> Archimedes once said, "Give me a place to stand and I will move the world." Today he would have pointed to our electric media and said, "I will stand on your eyes, your ears, your nerves, and your brain, and the world will move in any tempo or pattern I choose." We have leased these "places to stand" to private corporations. (ibid., 68)

14. Media are active metaphors and translators. McLuhan links his master historical pattern and his core dynamic in the chapter on "Media as Translators". He writes: "Translation is a `spelling-out' of forms of knowing. What we call `mechanization' is a translation of nature, and of our own natures, into amplified and specialized forms" (ibid., 56).

He continues once again retrieving the themes eveloped in 1962:

> All media are active metaphors in their power to translate experience into new forms. ... In this electric age we see ourselves being translated more and more into the form of information, moving toward the technological extension of consciousness. ...But there is this difference, that previous technologies were partial and fragmentary, and the electric is total and inclusive...The poet Stephane Mallarmé thought `the world exists to end in a book.' We are now in a position to go beyond that and to transfer the entire show to the memory of a computer. For man, as Julian Huxley observes, unlike merely biological creatures, possesses an apparatus of transmission and transformation based on his power to store experience. And his power to store, as in language itself, is also a means of transformation of experience...For just as a metaphor transforms and transmits experience, so do the media....As in all metaphors, there are complex ratios among four parts...And all media as extensions of

> `common sense' was for many centuries held to be the peculiar human power of translating one kind of experience into all the senses, and presenting the result continuously as a unified image to the mind. In fact, this image of a unified ratio among the senses was long held to be the mark of our rationality and may in the computer age easily become so again." (ibid., 57-60

15. Reason and logic are artefacts of technology. McLuhan's most radical conclusion, trenchantly stated in *The Gutenberg Galaxy* concerns the implications of his historiographic patterns for the question of reason itself " 'Rational' of course, has for the West long meant 'uniform and continuous and 'sequential.' In other words, we have confused reason with literacy, and rationalism with a single technology" (ibid.,15). Thus McLuhan has taken his argument far beyond conventional art analysis, and cites Gilson's point that "[e]very culture and every age has its favourite model of perception and knowledge that it is inclined to prescribe for everybody and everything." This "favourite model" is linked to Innis's biases of communications, but here McLuhan presses his theory to the limit. He is not arguing that there is no truth, but he is arguing that what we know as truth is an artefact of our dominant technology, until we can devise counter-environments for full awareness.

The meaning of media in McLuhan

McLuhan presents his work in the belief that principles of intelligibility can be discerned in the contours of our extended beings in our media and technologies (6). He expresses a faith that understanding may lead to greater autonomy. In *Understanding Media*, the principles of the first part give way to specific meditations on particular media and configurations of media. He clarifies the meaning of media because he broadens it so that it incorporates all the related services and disservices, new languages and behaviours. Take the car. Beginning with the *Report on Project in Understanding New Media* McLuhan argues that the car exists within a ground of services: highways and service stations and road conduct and dating teenagers. His innovation is to point to the nature of media as environments, in which, as he says, we often live as unconsciously

as the fish in water. As he had in *The Gutenberg Galaxy*, again McLuhan observes that what is required for understanding and study of the media is a total reorientation of our "imaginative" landscapes. In other words, his reworking of media stresses a mode of awareness. This can happen consciously or can continue to happen unconsciously.

McLuhan takes up 26 specific media figures in *Understanding Media*, as noted. Let us look briefly at how he approaches television, as this is the thematic selected for probing his legacy in chapter 4, and then move on to discuss the question of media. McLuhan asserts that the television image has transformed the imaginative landscape (*Understanding Media* 1964, 333). McLuhan challenges conventional wisdom in the study of television as communications medium, first, by even considering this low cultural form as a significant factor in human history. His concern is with the "ecological sweep of new electric media" (*Understanding Media* 199) that effects a reorganization of imaginative life. For this process, and processing, again McLuhan returns to his theme of new media and education:

> Whether there ever will be TV in every classroom is a small matter. The revolution has already taken place at home. TV has changed our sense-lives and our mental processes. It has created a taste for all experience *in depth* that affects language teaching as much as car styles. (Ibid., 331-2)

He describes the posture of children sitting close to the T.V. set, and links this observation of body language to find that the child has learned to read in a tactile manner, i.e. the with the face pressed close to, and almost touching the book. In a subtle parody of the "close reading" espoused by the New Critics, McLuhan is making a serious point regarding the invisible impacts of media: this impact on learning under electronic conditions. The question becomes: when children learn to read under the influence of television, what sensory, behavioural or experiential configurations may be expected? (In Chapter 4, we will examine how Patricia Greenfield takes up McLuhan's observations.) The answer is not supplied by focusing on content or using questionnaires, but rather by observing an inventory of effects within everyday culture, as revealed in slang or spoken in body language. McLuhan argues that TV as experienced in 1950s and early 1960s

North America is not so much a visual as a tactual-auditory medium, an extension, not of the eye, but, of the most complete or synaesthetic sense, touch (ibid., 336). This reworks the insight he arrived at in *Report on Project in Understanding New Media* that there is no necessary identity between the sensory impression offered by a new medium, and the sensory closure effected in the user of the medium. "With TV, the viewer is the screen" (ibid., 313). Such a tactile medium encourages in-depth participation. He calls for intense and empirical scrutiny of the form of television as the dominant medium of the hybrid media environment through observation of its effects within culture. "The ground rules, pervasive structure, and over-all patterns of environments elude easy perception" (*The Medium is the Massage* 1967, 68) McLuhan engages in a mosaic of explorations of his topic; he is the techno-cultural critic, probing the hidden core dynamics and historiographic patterns, so as to formulate abductively the meaning of individual and collective experience with the television medium. His crucial investigative assumption is that: "Everybody experiences far more than he understands. Yet it is experience, rather than understanding, that influences behaviour, especially in matters of media and technology, where the individual is almost inevitably unaware of their effect upon him" (*Understanding Media* 1964, 318).

To paraphrase, McLuhan argues: Turn attention not to the programs, but to the programming of the senses as we relate to this television technology.

Consistent with his continual focus on transformation, McLuhan makes no attempt to posit a once and for all essentialist analysis of television as cultural force. Like the vortex metaphor in *The Mechanical Bride*, McLuhan recognizes that in the complex whole of interrelated culture and technology, the investigator must in effect learn to navigate the force fields set up by new media. This explains in part why during the Catalyst Phase in his developing thought he informs interviewers that his probes explored, but did not explain. The life of forms is dynamic (*Understanding Media* 1964, 335). Events move along; technological extensions are in constant interaction with cultures and populations. Likewise, McLuhan sees television as evolving. This probe technique works especially

well when two media are juxtaposed for comparison--that is, seeing one thing through another--within a diagnosis of the formal dynamics in play. For example, in his discussion of one of the media figures, "Movies: The Reel World," McLuhan observes: "At the present time, film is still in its manuscript phase, as it were; shortly it will, under TV pressure, go into its portable, accessible, printed-book phase....The present dissociation of projector and screen is a vestige of our older mechanical world of explosion and separation of functions that is now ending with the electrical implosion" (ibid., 291-92). Voila book-like video cassettes and VCRs. Later, the article "Television in a New Light" (1967), expresses this aspect of McLuhan's method and theory: "Don't try to hold it fixed in front of you, and continue to look at it as if it were going to stay fixed. Television will change totally, just as advertising is going to change..." (105).

McLuhan did not define, so much as explode all previous conceptualizations of media. Media is a protean word, slippery and imprecise (Czitrom 1982). It is not possible to deny the ambiguity resident in this key term--an ambiguity shared with others in common use among scholars and the general public, including technology, culture, and communications. The interest lies in the expansive sense McLuhan gives the term, when compared to the "official" definition enshrined in the OED and discussed below. One need not agree with him to be influenced by his provocative formulations, for after he placed media on the public agenda, the terms of discourse on the topic changed. The Oxford English Dictionary (OED 1989) acknowledges his contribution as an inventor of rhetorical devices by including 346 mentions of his name. His role in expanding the usage of the term media is marked in the OED's citation of a sentence from *The Gutenberg Galaxy*: "Is not the essence of education civil defense against media fall-out?"

In a celebrated general formulation, McLuhan called media and technologies "extensions of man" and in the introduction to Understanding Media he described their effects:

> After three thousand years of explosion, by means of fragmentary and mechanical technologies, the Western world is imploding. During the

> mechanical ages we had extended our bodies in space. Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned. Rapidly, we approach the final phase of the extensions of man--the technological simulation of consciousness, when the creative process of knowing will be collectively and corporately extended to the whole of human society, much as we have already extended our senses and our nerves by the various media. (3-4)

Public opinion polling and market research provided him with early examples of these extensions; more recently, the Internet offers a post-broadcast model that approximates McLuhan's description of the "technological simulation of consciousness." His sense of media cuts across levels of meaning and conventional categories to cover a vast array of phenomena. For example, in the chapters on extensions in *Understanding Media*, McLuhan begins his inventory with the spoken and written word, and includes the road, number ("the profile of the crowd"), games, weapons, television, movies ("the reel world"), and finally automation.

Throughout his writings, McLuhan continuously reformulates the general dynamics of the operations and effects of media and technologies. Media and technologies are related, and never clearly distinguished in his work. As environments, new media and technologies are not neutral, concludes McLuhan, but are instead transformative. The way this worked was that, "if a new technology extends one or more of our senses outside us into the social world, then new ratios among all of our senses will occur in that particular culture" (*The Gutenberg Galaxy* 1962, 54). In a complex and unconscious process of translation, when we extend ourselves externally through technologies, an internal sensory rebalancing or interiorization takes place. This sensory reconfiguration is not simply an individual matter; rather it occurs collectively within a particular culture, in response to dominant or commonly experienced environments of media and technologies. He concludes: "Any extension, whether of skin, hand, or foot, affects the whole psychic and social complex" (*Understanding Media* 1964, 4). As envisioned by McLuhan, this fluid extension and interiorization process, far from being a passive container, is dynamic and interactive. Media are extensions that are also languages with

grammars; as metaphors they translate one domain of experience into another. Extension through technologies shapes environments which actively process the men and women so extended. This concept of the operations of media and technologies is a kind of material and linguistic media ecology, a human science of interdependent large-scale and long-term environmental effects of cultural relationships with technology.

Compare the definition offered in the 2nd edition of the *OED* (1989) which notes that "media" takes on its modern sense in 1927, and defines it as "newspapers, radio, television, etc., collectively, as vehicles of mass communication." One can only marvel at the *OED*'s use of "etc." It is further observed that media in the plural is probably after "mass media." The reader is advised against the common mistake of using media as a singular noun, as in "the media is powerful." This note of course reflects the frequency of this usage within ordinary language, which presumably echoes the shared experience of a kind of environmental unity among diverse media (as in "the media said" or "I heard it on the media").

To retrieve McLuhan's expansive probes of media, and follow the discussion beyond the limitations of conventional thinking represented by the *OED* definition, is to discover that media as a term includes far more than the history of journalism, propaganda, and public opinion, or the politics, economics, or content analysis of mass media. McLuhan brings the rich legacy of the humanities to bear upon media study. He finds media and technologies to be crucial agencies of historical transformation, and thus advances a controversial version of the fundamental dynamics animating cultural change. As he makes clear in *The Gutenberg Galaxy*: "Man the tool-making animal, whether in speech or in writing or in radio, has long been engaged in extending one or another of his sense organs in such a manner as to disturb all of his other senses and faculties. But having made these experiments, men have consistently omitted to flow them with observations" (1962, 12).

After the publication of *Understanding Media*, McLuhan continued throughout his career to probe and theorize the meaning and significance of media. Many critics,

however, stopped reading him in the 1960s, and gave up on his provocative and fluidly expansive concept of media. They had stopped listening when he first published his "laws of media" in 1975, and distinguished what I believe to be his techno-cultural hermeneutic approach to media from what he calls a narrowly conceived approach to "communications media." McLuhan articulates the key principle that distinguishes this approach when he writes, "it is the framework itself that changes with new technology, and not just the picture within the frame" (*Understanding Media* 1964, 219). Anticipating the work of the Last Decade for purposes of this discussion, note McLuhan's the breadth of McLuhan's increasingly explicit definition of media:

> I am talking about "media" in terms of a larger entity of information and perception which forms our thoughts, structures our experience, and determines our views of the world about us. It is this kind of information flow--media--which is responsible for my postulation of a series of insights regarding the impact of certain technological developments. I call them "laws" because they represent, as do scientific "laws," an ordering of thought and experience which has not yet been disproved; I call them "laws of the media" because the channels and impact of today's electronic communication systems provide the informational foundation upon which we order, or structure, these experiential perceptions. ("Laws of the Media" 1975, 75)

The boldness of McLuhan's theoretical move is that during the Last Decade he finds a way to consciously focus his attention on the relationship between media figures and the techno-cultural environment or ground. Once again taking Steiner's definition of hermeneutics as "the understanding of understanding" (1975)[35] McLuhan's shift in the Last Decade takes him from the figures of media and technologies discussed in *Project in Understanding Media* and in *Understanding Media*, to the understanding of the techno-cultural grounds for understanding, by probing transformations in the "informational foundation" not approached as content, but through the biases of communication engendered by and evident in experience with media environments.

In the process of exploding conventional definitions of media, McLuhan's unorthodox work became indelibly linked with his subject matter. He succeeded in posing a challenge to the entrenched conventional model of a medium as a sort of

pipeline, and communications as a process of moving a "message" in linear fashion from sender to receiver, analogously positioned at two ends of the pipe. As Michael Reddy later observed, this linear model is embedded in the English language through the "conduit metaphors" by which the process of communication is commonly expressed (Ortony 1979, 284-324). On this basis, McLuhan's summary statement in the Last Decade takes on fresh meaning, in a letter to Marshall Fishwick, July 31,1974 he states: "I have the only theory of communications as transformation, all the rest are theories of transportation only." (*Letters* 1987, 505.)

End of the Catalyst Phase

Throughout the decade McLuhan continues to produce provocative essays and books that probe the principle insights into cultural transformation that he has discovered. He experiments further with textual formats and collaborates with designers, including his artist friend, Harley Parker, who had worked on the 1954 essay "Counterblast", which is modified and reissued in 1969. The pair collaborate on *Through the Vanishing Point: Space in Poetry and Painting* (1968). a work which McLuhan considers another stage in "new criticism" in that, where the new critics discovered multi-semantic levels in literature by close reading of the words on the page, McLuhan and Parker elucidate multi-levels of sensory space in poetry and painting (*Letters* 1987, 361). *Through the Vanishing Point* demonstrates how verbal and visual art can be used as a form of perceptual training in awareness of sensory modes, and as a kind of research (1968. xxiii-xxiv). In a section in the book, called "Toward a Spatial Dialogue", the juxtaposition of a the words of a poem and image of a painting (on verso pages, the pairing indicated by numbers) is interspersed with McLuhan's aphoristic commentary that mixes erudition and pop culture. The tactic unleashed in the *The Mechanical Bride*, of training the prey to be aware of the environment by tuning up the sensibilities with advertising applies now to training the senses in art and literature. *Through the Vanishing Point* can be considered an extension of McLuhan's grammatical theory and

rhetorical practice of communications, in its attempt to sharpen the reader's perception by presenting an unorthodox exegesis that invites participation and creative discovery.[36] The influence of I.A. Richards' "practical criticism" has migrated from the study of poetry into an original multimedia and multisensory approach to understanding the contemporary environment of media and technologies. McLuhan restates his position that the role of art "is to create the means of perception by creating counter- environments that open the door of perception to people otherwise numbed in a nonperceivable situation" (ibid., 241). Strategies of attention must be created to break the numbing spell of the invisible environments.

Instead of hot and cool, McLuhan now speaks of visual space (connected, excluding participation) and auditory space (disconnected, inviting participation). Recall his presumption that each sense actively makes a form of space. The prospect of plenary sensory involvement, known as synaesthesia, is invoked as a possible consequence of the decline of typographic literacy and linear visual space. An example from Joyce's *Ulysses* demonstrates how words can involve all the senses, and the commentary notes further: "The sensus communis as the interplay of all the senses creates an involvement that unifies the imaginative life in the way sought by William Blake" (ibid., 207).

With coordinator Jerome Agel and designer Quentin Fiore, he produces the typographically avant garde and illustrated *The Medium is the Massage* (1967) and *War and Peace in the Global Village* (1968). *The Medium is the Massage* is a "collide-oscope of interfaced situations" that retrieves many of his previous writings to explore the new electronic environment. He repeats his rejection of technological determinism, in the statement that "there is absolutely no inevitability as long as there is a willingness to contemplate what is happening" (1967, 25). A summary of one of the breakthrough themata of the decade, media as environments, appears beside a closeup photo of a toe nail:

> All media work us over completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical,

> social consequences that they leave no part of us untouched, unaffected, unaltered. The medium is the massage. Any understanding of social and cultural change is impossible without a knowledge of the way media work as environments. [And running one word at a time down the left side of the page] All media are extensions of some human faculty--psychic or physical. (ibid., 26)

War and Peace in the Global Village is "an inventory of some of the current spastic situations that could be eliminated by more feed forward." Quotes from Joyce serve as running marginalia. By now McLuhan's work repeats earlier themes, and manifests the dynamism of his diagnosis, as he tracks more recent media developments. McLuhan writes privately of his book in a 1967 letter:

> The sub-plot is the effect of the computer. The main plot is that every new technology creates a new environment that alters the perceptual life of the entire population. Since violence is the inevitable means of quest for identity when the old image, private or corporate, is smudged by the new technology, war is automatic as a means of recovering identity....[Speaking of Vietnam] We are now in the middle of our third world war, our first TV war. ... [Speaking of the generation aged fifteen] TV is the end of the western world. We have gone Oriental while the Orient tries to go West. Another major theme...is that war is the great educational agency. ...On the other hand, education is war conducted against the sense life, and we now do this by new media. (*Letters* 1987, 348-349)

His outlook grows darker. The computer is hailed as a most extraordinary extension because it directly extends the central nervous system (*War and Peace in the Global Village* 35). Returning to his physiological sources on the senses,[37] and throwing his discussion in *Understanding Media* of the mythical Narcissus narcosis into new relief, the book's subtext is pain--the pain of the auto-amputation of the central nervous system itself (ibid., 73).[38] He also describes this auto-amputation in *Through the Vanishing Point*: "Every new technological innovation is a literal amputation of ourselves in order that it may be amplified and manipulated for social power and action. Naturally, such amputation is associated with pain that is referred not so much to the body as to brain centres" (73).

In his promotional activities, and speaking engagements McLuhan seeks audiences and funding for his ideas outside the academy, works through conversations with collaborators, and extends previous objectives, particularly research on the perceptual effects of new media. He attempts unsuccessfully to raise money to prepare a before and after study of the introduction of television into Greece. With the help of a friend, he gets IBM to contribute $10,000 for a study of sensory profiles. However the project collapses when McLuhan's collaboration dissolves into conflicting claims over intellectual property (Marchand 1989, 162-65). Experimental work is tried by with a head-mounted camera developed by a colleague and able to capture eye movements and refer these to the object under attention. An "encapsulating chamber" designed by an architect to simulate the environment presented to the senses by foreign cultures is proposed (ibid., 164-65). From the perspective of the 1990s, it is apparent that these projects anticipate researchable questions, or perhaps virtual reality entertainment. However McLuhan anticipates, but is unable to execute these innovative ideas in a coherent and academically acceptable research program.

A dignified photo of McLuhan dominates the overheated promotional rhetoric of an ad for the *Dew Line* newsletter which runs in the *New York Times Magazine* (28, July 1968), promising "[the newsletter] will use multi-media to deliver its message. It is designed not only to give you facts, but a whole new set of sensory equipment." Paradoxically, at one level McLuhan has become what he beheld. The ad could be parodied effectively in the manner of *The Mechanical Bride*. At another level, his explorations of the transformative powers of media continue, and convinced of the importance of his ideas, unable to attract scholarly funds, feeling the rejection of many academic colleagues, his ambivalence toward the academy deepens. The paradox presented by McLuhan to his commentators expresses the tension of the public intellectual who finds that the wider the circulation of his ideas, the more alienated are his academic colleagues. Some of his startling insights have become commonplaces, such as the global village and the medium is the message, yet with rare but important

exceptions the full import of his work remains obscure, in part eclipsed by the controversy. The ambiguity of McLuhan as celebrity public intellectual blurs the line between intellectual pioneer and popular icon. These issues will be taken up in Chapter 3.

Nevertheless, once re-read, it seems impossible to justify the reduction of McLuhan's diagnosis of techno-cultural transformations to technological determinism, given his repeated assertions during the Catalyst Phase, including the following:

> Today, in the electronic age of instantaneous communication, I believe that our survival, and at the very least our comfort and happiness, is predicated on understanding the nature of our new environment, because, unlike previous environmental changes, the electric media constitute a total and near-instantaneous transformation of culture, values and attitudes. This upheaval generates great pain and identity loss, which can be ameliorated only through a conscious awareness of its dynamics. If we understand the revolutionary transformations caused by new media, we can anticipate and control them; but if we continue in our self-induced subliminal trance, we will be their slaves. ("McLuhan Mosaic" in *The Antigonish Review* 1988, 11).

The Last Decade

> "Remember, I have the only communication theory of transformation--all the other theories are theories of transportation only." (*Letters* 1987, 505.)

McLuhan spends the decade at the University of Toronto, teaching English and his Media and Society course for St. Michael's College, and conducting a Monday evening public seminar at the Centre for Culture and Technology housed in the Coach House. Books initiated later in the Catalyst Phase are published between 1970 and 1972, but his audience has moved on. He accepts invitations to speak all over the world, and participates in gatherings of intellectuals and their patrons. His requests for research funds, refereed by academic juries, are mostly denied.[39] Publishers are more receptive and he signs several book contracts; however *The City as Classroom*, published in 1977 (with K. Hutchon and E. McLuhan), would be the last book to appear in his lifetime. *Laws of Media* begins as a revision of *Understanding Media*, on which he collaborates

with numerous associates, but soon the project takes on a life of its own, and results in several articles in which McLuhan announces his discoveries.

In addition to the last books published, frustration with unfinished projects, perceived scientific and historical corroboration for his ideas, hopeful announcement of the laws of media and (as we will see shortly) new developments, one other key feature distinguishes this Last Decade. There is, as Marchand (1989, 245) aptly puts it, "a hint of anguish" in his response to his critics. He begins the decade with his former spirit: "A guy who turns in a fire alarm is not necessarily an arsonist!" The phenomenon is now spoken of in the third person: "Marshall McLuhan has never said that the printed page has come to an end. McLuhan has said that the book is obsolescent" (*Letters* 1987, 398). With the frequent assistance of his dedicated ally and collaborator (on *Take Today*), Barrington Nevitt, he attempts to correct what he considers misrepresentations of his position in letters to the popular press (*Letters* 1987, 410), in private letters to his commentators; Carey (*Letters* 1987, 491); Kuhns (*Letters* 1987, 448), in published letters to hostile critics (e.g. *The Listener*, in response to Jonathan Miller's book (*Letters* 1987, 425-6), and to his friends (*Letters* 1987, 430). He seeks advice from Fishwick on how to respond to other academic attacks (*Letters* 1987, 505-06). He is especially outraged at Jonathan Miller's assessment that he may be guilty of lies. One friendly response--from Esslin, 1971--gently cautions that "lies" may be Miller's forceful way of expressing "matters not scientifically proven or correct" (*Letters*, 440). McLuhan later declares: "Nobody could pretend serious interest in my work who was not completely familiar with all of the works of James Joyce and the French Symbolists" (*Letters* 1987, 505). He complains that he is better appreciated in the Latin world, that print-fixated academics resist his ideas, and that the sixties generation that once embraced his work is now going straight (*Letters* 1987, 505-06). Yet he is convinced of the importance of his ideas, and continues to work to overcome the obstacles he perceives. If a humanist, a doctus orator, is to succeed in the twentieth century, it is necessary to put forward a

"scientific" proposition. Over the decade McLuhan develops his "new science" which he later links to the works of Bacon and Vico. The laws of media and tetrad are one result of McLuhan's final intellectual production.(See illustration 7.)

In 1970, McLuhan is informed that Herbert Krugman, a public opinion researcher with General Electric, has concluded that McLuhan was right in assuming that print and television media are experienced in distinctive ways by viewers and readers. Krugman's small study links brainwaves and differential responses to printed and televised material. Regardless of content, Krugman confirms, without having set out to do so, that there is a physiological basis for concluding that the medium is the message (Krugman 1970). In the wake of this finding, McLuhan grows more hopeful of finding scientific corroboration. Within the decade, he considers the brain central to the core dynamic and master historiographic patterns of his theory. It seems relevant to mention that in 1967 he had experienced the longest operation for a successful brain tumour removal in U.S. history to that point. Later he displays a right versus left brain overlay on the core dynamic. Trotter and others had observed that the left brain hemisphere seems to control linear, logical approaches, whereas the right hemisphere seems to control the intuitive, artistic and non-linear orientation. For McLuhan this might explain the incomprehension that he genuinely had encountered in colleagues. It is evident that McLuhan continues to find a basis for his insights in the body, as well as in language. His authorial position remains that of the encyclopaedic humanist. In addition to his literary sources, with Joyce the most prominent and prescient student of media, McLuhan continues to cite Innis's pioneering insights, and to locate significant corroboration in Havelock (1963), Hall (1959), and Gombrich (1960). Unquestionably, Gideon influenced him, in *Space, Time and Architecture*, and *Mechanization Takes Command*. So did, to a lesser degree, Lewis Mumford's *Technics and Civilization*. Over the decade McLuhan adds Lusseyran's (1963) lucid autobiographical account of his childhood blindness, and personal experience of the shift from visual to acoustic sensory spaces (*Letters* 1987,

Illustration 7

McLuhan's TETRAD

What do all human artefacts simultaneously:

Extend or amplify?

Retrieve?

Obsolesce?

Flip into at saturation point?

413), and Entralgo's (1970) history of early medicine, which McLuhan considers a study of the audile-tactile (*Letters* 1987, 451).[40]

In addition to essays, interviews, and public appearances, early in the decade he publishes three books with typographically experimental formats and prose styles on the theme of "the effects of electric technology on the human community" ("My Last Three Books" [1973]). His books are mostly collaborations, and part of a conversational mode of production. Thus he lacks the strength of lasting voice on the page, and his critics remain unconvinced. His brief expositions of the laws of media and other topics, unquestionably open up still unprobed vistas. He retrieves the theme from *War and Peace in the Global Village* that violence is a quest for lost identity, and reworks his comments on the tribalism that he believes emerges under electronic conditions. The global village theme migrates into the global theatre, where roles are preferred over jobs: "Since Sputnik, the planet has become a global theatre under the proscenium arch of man-made satellites" (*Culture is our Business, author's note).* The space age landscape has now upturned the earth itself into an art form, with the ecological movement one consequence.

During the Last Decade, speed becomes an even more important variable in McLuhan's environmental diagnosis. He regards contemporary historical patterns as global techno-cultural dynamics operating at varying rates of acceleration, so that media forms collide and set up force fields, with accompanying effects, now called service and disservice environments. The urgency of his message is unabated: "Social navigation and survival depend on recognition of the processes, and knowledge of the diversity of environmental `rim-spins' and epicycles that we have created by our own innovations. When a fast cultural spin is put around a slow one (e.g., when instant radio software is put around cumbersome nineteenth-century hardware), the slower hardware breaks down" (ibid.,). The result can be breakdown or breakthrough but, in any event, observes McLuhan as he had in *Understanding Media,* the result is a flip into another pattern.

Another theme retrieved from *Understanding Media* is Toynbee's idea of "etherealization" which variously surfaces in McLuhan's work as "discarnate man" living at the speed of light, doing more with less, and a kind of dematerialized electronic simultaneity that abolishes space and time. For example, "Etherealised" via electric media we become discarnate minds: "WE are there and THEY are here, instantly....Electronic man is not only instantly transferable via information anywhere in the world, he can also be `out of this world' or simultaneously in many parts of it." We become angels, by which McLuhan means rational presences minus a physical body (McLuhan and Nevitt 1972, 28-29). Where *The Gutenberg Galaxy* ended with the galaxy reconfigured in an electronic age, and *Understanding Media* ended with automation, it is etherealization and the relationship between hardware and software that has become a leading theme early in the decade's work. He defines the relationship in a later essay: "Software is the organization of information for the shaping and metamorphosis of its `hardware' embodiment. The hardware/software relationship is not fixed, but is constantly changing in the process of `etherealisation' (*Causality in the Electric World* 1973, 1). The last section of *Culture is our Business* addresses "Software". It begins with Boccioni's line, "[w]e are the primitives of a new kind of culture", illustrated on the facing page by an anti-Vietnam war poster, headlined "And now the Bomb?"--by which he means electric software--and from which "[t]here is no finish line" (*Culture is our Business* 1970, 334-5).

From Cliché to Archetype, prepared in conversation with Wilfred Watson (1970), follows the patterns of human cognition as manifest in language and the arts. The related principles of retrieval and obsolescence are major themes of this work, and will become an aspect of the four fold tetrad. Retrieval means "the paradox of the process by which worn-out and conventional themes and perception [which are explored as aspects of *cliché*] are habitually flipped into resplendent new form" ("My Last Three Books", n.p.). Another way of putting this is that obsolescence is the matrix of innovation (Oltman 1974, 74). The relationship between *cliché* and archetype is dynamic, and the emphasis

on speed again emerges: "New *cliché*, new technology retrieves unexpected archetypes from the rag-and-bone shop. New means create new ends as new services create new discomforts. New speed-up, a new rim-spin put around any slower organization, destroys the slower one" (*From Cliché to Archetype* 1970, 46). The slide show of *The Mechanical Bride* has accelerated into a simultaneous global sound and light show, accompanied by McLuhan's mosaic anti-narration. This prompts a further reworking of the meaning of media:

> All media of communications are *clichés* serving to enlarge man's scope of action, his patterns of association and awareness. These media create environments that numb our powers of attention by sheer pervasiveness. The limit of our awareness of these forms do not limit their action upon our sensibilities....Since the resulting symbolic systems are numerous, they are in perpetual interplay, creating a kind of sound-light show on an ever-increasing scale.(*From Cliché to Archetype*, 57).

His ideas are speeding up, as though in response to the environment that surrounds him. Innovations are extensions that create hidden systems which stem from man's own psyche and interact with all the senses. The diagnosis of the core dynamics and historiographic patterns continues. "Today we experience a return to that [tribal, with no past, no history] outlook when technological breakthroughs have become so massive as to create one environment upon another, from radio to TV to satellite. These forms give us access to all pasts" (ibid., 119). Vico's *New Science* had shown Joyce, among others that ancient fables and tales are compressed records of moments of technical breakthrough, which are also resonant in the patterns of human speech and sensibility (ibid., 125). McLuhan takes up Vico's theme. New technologies toss whole societies into the garbage can of obsolescence, where they become accessible to retrieval by later generations, and other cultures (ibid., 126). "Electric information", he writes, "has carried enlightenment to the flip point: The world of bugging and X-ray has brought back the occult and the exterior world has yielded to the inner trip" ("My Last Three Books" n.d., n.p.). Again, T.S. Eliot's "auditory imagination" expresses the acoustic

all-at-once pattern that the electric world imposes on human awareness by reorganizing the sensory and imaginative picture, but only if we stay asleep.[41] *From Cliché to Archetype* is preoccupied with the multi-level operations of a Viconian kind of *ricorso*, the retrieval of the primitive acoustic simultaneous mode of experience, under electronic conditions. However, as he consistently maintains, the transformation of Western literate man under electronic conditions is not the same as the transformation of man accompanying the shift from oral to literate culture (*The Gutenberg Galaxy* 1962, 40, *Understanding Media* 1964, 50), and post-literacy is a quite different mode of interdependence from pre-literacy (*The Gutenberg Galaxy* 1964, 60).

In conversation with Barrington Nevitt, by profession an electrical engineer, McLuhan applies his ideas to business management and corporate organization. The result, *Take Today: The Executive as Dropout* (1972), probes diverse aspects of mediamorphosis, including reversals from hardware to software, job-holding to role-playing, and from centralization to decentralization. The approach is to "reveal pattern and process by means of inventories of effects "(McLuhan and Nevitt 1972, 27), as he had done previously in *The Medium is the Massage*.[42] By this point, McLuhan has adapted Innis' staples thesis into the proposition that: "Change itself has become the main staple" (McLuhan and Nevitt 1972, 6).

McLuhan continues to reformulate the core dynamics of his theory: "The user is always the content of any medium, whereas the message is the totality of effects whether intended or not." (McLuhan and Nevitt 1974, 30). He restates a point from *Project in Understanding New Media* (again citing Gombrich), but now his concern begins to focus on the grounding of experience in interplay, a gap where the action of transformation is:

> Sensory inputs are not the same as sensory closures. In the process of "closure" or "synaesthesia," whatever the eye receives is modified by the ear and touch and smell and all our past experience....The "interface" between the old and new creates a transformation and merging that we call "experience". (ibid.)

Bolder regarding the coherence of his diagnosis, he criticises rivals to his theory of communications as transformation:

> Conventional communication theory is concerned with matching the old, not making the new. It is a theory that reduces all "messages" to yes-or-no choices--"bytes" of "two-bit" information, to be transmitted through "noise" from input to output of a tele-communication channel. It is a theory of communication for machines that has been applied to people by specialists. (McLuhan and Nevitt 1972, 28)

McLuhan grows increasing preoccupied with simultaneity as he continues to rework his themes. Citing T.S. Eliot and James Joyce, McLuhan repeats his fundamental assumption, that we can have the experience of any medium without discovering its meaning until long afterwards (ibid., 30). "Resonance" is now an important term to describe the "instantaneous world of information movement" or "Echoland," which McLuhan links to the earlier idea of acoustic space: "The `action' has moved from the `rigid connection' to the `resonant gap.' The fact that the ear creates a physical space quite distinct from the physical space created by vision, or touch or smell, or proprioception (visceral and postural), or any of the other senses, is a fact long lost to literate Western society" (ibid., 31). McLuhan's core dynamic is now plain, but an important thematic that anchors his work of the Last Decade emerges in the notion from gestalt psychology of the figure/ground relationship : "The technological extension of each sense makes its own space, just as each participant make sense in his relationship to the communication process....The meaning of a word is not what it says not merely its definition, but what it does as a figure in its context or ground."(ibid., 29). The development of this theme extends his training in practical criticism into the multimedia work of techno-cultural experience.

McLuhan discovers an exquisite experiential account that appears to provide corroboration for his linkage of core dynamics and sensory change in *And There Was Light*, by the French resistance leader, Jacques Lusseyran. Lusseyran described the revolution in sensibility resulting from his sudden childhood blindness and, based on this experience, drew a parallel conclusion to McLuhan's, namely, that reason itself is dependent on sensory organization. Lusseyran writes:

> When I came upon the myth of objectivity in certain modern thinkers, it made me angry. So there was only one world for these people, the same for everyone. And all the other worlds were to be counted as illusions left over from the past. Or why not call them by their name--hallucinations? I had learned to my cost how wrong they were. From my own experience I knew very well that it was enough to take from a man a memory here, an association there, to deprive him of hearing or sight, for the world to undergo immediate transformation, and for another world, entirely different but entirely coherent, to be born. Another world? Not really. The same world rather, but seen from another angle, and counted in entirely new measures. When this happened, all the hierarchies they called objective were turned upside down, and scattered to the four winds, not even theories but like whims. (*Letters* 1987, 436; *Take Today*, 144; Lusseyran 1963, 112)

McLuhan maps this illumination of the core dynamics onto the historiographic patterns, and comments: "What Lusseyran ascribes to the physical fate of sudden blindness, has in the electric age of instant information and new man-made environments, become a universal experience of sudden re-orientations and lost goals and identities" (*Letters* 1987, 436).

In *Take Today* and throughout the decade McLuhan extends the figure/ground analysis into a perceptual probe of dynamic environments. This tactic permits McLuhan to formalize the mosaic approach, and confer a social scientific lineage on his approach to understanding media, as he had done previously by invoking such figures as Gombrich, von Bekesey, Hildebrand, and others. McLuhan explains (using examples previously developed in *Project in Understanding New Media)* to an interviewer:

> Each kind of technique, or technology, necessarily has a large ground of services and disservices associated with it. Now, the ordinary attention is fixed on the figure rather than the ground, on the wheel rather than the huge system of road services necessary to maintain the existence of a wheel or wheeled vehicles. ... By not looking at the ground around the automobile, you miss the message of the car. For it is the ground of any technology that is the medium that changes and it is the medium that is the message of the technology, not the figure. (Oltmans 1974, 72-73)

In *Take Today*, he McLuhan's extension of his roots in literary criticism into his theory of communications is evident, an he writes:

> It is hard for the conventional and uncritical mind to grasp the fact that "the meaning of meaning" is a relationship: a figure-ground process of perpetual change. The input of data must enter a ground or field or surround of relations that are transformed by the intruder, even as the input is also transformed. Knowledge, old or new, is always a figure that is undergoing perpetual change by "interface" with new environments. Thus it is never easy to divorce knowledge and experience. In the same way that knowledge and experience are continuously modifying each other, the relation between "hardware" and "software" is not fixed but is in a perpetual state of metamorphosis. (1972, 86)

Each medium favours a sensory mode. He continues: "All models, `hardware' or `software', like metaphors, transfer or transform meaning from one sensory modality or field of being to another"(with Nevitt 1972, 28)

Translation has always been central to McLuhan's line of thinking regarding transformation, variously manifest in the metaphor (seeing one thing in terms of another), and the sensus communis, common sense or wit that processes experience. In the Catalyst Phase, the companion notions of extension and interiorization supplied a mode of realization for the operations of the core dynamic of transformation. In the Last Decade, as mentioned above, he delves further into the process of transformation, and emphasizes the interval, as the gap where transformation occurs.[43] He announces privately in 1970 after reading Ovid's *Metamorphoses*: "It is a bit mortifying to discover at this time of day that the technique of metamorphosis is quite simply that of the arrest the interval, whether of space or time or rhythm. It is this that causes the change or metamorphosis" (*Letters* 1987, 417). The continuity with McLuhan's Early Phase of literary criticism and emphasis on the aesthetic moment, are evident here, as is the fluid way in which he melds his extension of literary criticism into media study. The televised instant replay becomes a formula for metamorphosis. In the same letter in which he announces his full awareness of the significance of metamorphosis, he writes: "The electric light as a medium and message combined is clearly an environment that includes the viewer as content. The same however is true of all other media, as with fish in water--

all media which surrounds or environments that use not only everybody but all earlier media as their content. Hence the metamorphosis" (ibid., 418).

The theory of mediamorphosis is fashioned out of the earlier preoccupations and the new concepts. After *Through the Vanishing Point*, he emphasizes: "The electric age gives ascendancy once more to the `resonant interval' that Warner Heisenberg designated as the structure of quantum physics, and which Lines Pauling describes as the `chemical bond'. It is the sudden recurrence of the resonant interval as a dominant cultural fact in the electronic age that gives twentieth-century man his rapport with primitive societies as well as with medieval culture" ("Discontinuity and Communication in Literature" 1970, 190). The interface is "tactility itself, the metamorphic moment of the resonant interval such as occurs between the wheel and the axel. Without the interval, there would be neither wheel nor axel" (ibid., 193). Joyce makes full use of the resonant interval, setting up a parallel between mythology and language, which is a mirror of the modifications of the human mind, as Vico had said (ibid., 193). Joyce uses myth to manipulate a continuous parallel between contemporaneity and antiquity, as T.S. Eliot put it, in a manner as important for literature as a scientific discovery (ibid., 194).

McLuhan is deepening his awareness of themes first advanced in *The Mechanical Bride*, particularly the theme of discontinuity, for between two things there is not a connection (as is posited in visual linear space) but rather a gap or interval. McLuhan traces this recognition in Western literature to the Symbolists, but finds full awareness in Eastern (Oriental) art and philosophy, notably the *I Ching*. The shift in emphasis in his work from extensions to the idea of the resonant interval, as interface or moment of metamorphosis, casts a different shading on his insights of the Last Decade, and indicates a parallel shift from organic to metamorphic formalism. These fresh concepts appear in his books and private papers, and indicate the convergence of his thinking on the topic of the metamorphic powers of the forms of our extended human artefacts. Key concepts are figure/ground and the resonant interval or interface, however McLuhan also retrieves the notion of formal causality. I believe that McLuhan's recognition of the

formal powers of electricity, namely the speed of light, and simultaneity leads him to conceptualize his previous work in new ways. He writes in a 1971 letter to E.T. Hall, for instance, "the user of the electric light, or a hammer, or a language, or a book, is the content. As such, there is a total metamorphosis of the user by the interface. It is the metamorphosis that I consider the message" (*Letters* 1987, 422). This is a paradigmatic statement, for the example of the electric light captures McLuhan's focus on simultaneity. He had called attention to the significance of the electric light in *Understanding Media* however he now finds in the properties of the light, or electricity, the formal cause for the patterns he diagnoses. Thus he describes the impact of electric and electronic media on the human community as living at the speed of light. The shift in McLuhan's thinking places greater stress on pure form, operating outside of the confines of chronological history. By tracing the process of interaction between "users" of media, and all artefact forms, the theme of metamorphosis culminates in the tetrad. The laws of media extend his core dynamics, and historiographic patterns, into an increasingly synchronic formalist theory.

Before examining the tetrad, several other research strands pertinent to the development of McLuhan's theory of cultural transformation in the Last Decade require attention.

One of the unfinished projects (abandoned in 1975, after his research grant proposal was denied by the *Social Sciences and Humanities Research Council*) indicates the way in which he had hoped to develop his thesis of master historical patterns within cultural history. This is a "Baedecker" or guide to the developments in art and science in the twentieth century.[44] Reinspired in the early 1970s to take up themes suggested by Gideon when reading Thomas Kuhn's *Structure of Scientific Revolutions*, McLuhan envisions a series of aphoristic essays inventorying the major artistic and scientific breakthroughs of the twentieth century, beginning in 1900 with the discovery of discontinuity between conscious and unconscious in Freud's *Interpretation of Dreams*, and of matter in Planck's quantum theory.

He intends to illuminate how these and other breakthroughs depend on changes in `models' of perception. Parallel breakthroughs are apparent in cubist and multilocational art, and McLuhan proposes that the unity underlying these recent artistic and scientific developments lies in a shift from visual to other types of space--such as acoustic and tactile space--under electric conditions. In *The Gutenberg Galaxy* and *Understanding Media* he had advanced the case that art and science were transformed under conditions of alphabetic and later typographic literacy. In *The Mechanical Bride* he had argued that the discontinuous newspaper form, a hybrid medium of print and telegraph technology, preceded and became the ground for artistic and scientific insights. The intellectual Baedecker then was an attempt to supply a fuller account of that ground shift for the twentieth-century paradigm shifts (or figures) for all of cultural life, as Kuhn had done for the natural sciences (*Letters* 1987, 504). McLuhan argues that media forms provide the ground for the new discoveries, which the artists and creative scientists are the first to detect. This supports my interpretation that McLuhan's most ambitious project would have been to prepare a diagnosis that linked the core dynamics and the historiographic patterns, as a kind of awareness manual on the shifting operating systems in twentieth century thought. McLuhan urged his talented colleague, Ted Carpenter, to collaborate, and, after he refused, sought other names (*Letters* 1987, 450). In addition to the Letters, and essays such as "Discontinuity and Communication in Literature" (1970) and "Literature and Scientific Knowledge" (April 1976), McLuhan's ideas appear in an unpublished memo, "Changing Paradigms in the Arts and Sciences Since 1900" and are sprinkled throughout *Take Today* (see also Marchand 1989, 239-40).

Reading Kuhn's *Structure of Scientific Revolutions* with its discussion of normal science and paradigm shifts provokes McLuhan to conclude that "there never was a scientist in history who set out to make breakthroughs or discoveries. All scientists seem to have been earnest supporters of whatever establishment they could unite with" (*Letters* 1987, 450). Once McLuhan diagnoses the grounds for natural science itself as a form of knowledge arising from a particular mode of experience, he moves further into what I

have called his techno-cultural hermeneutics. His effort to reveal the grounds of understanding emerges out of his stance as grammarian: "General Systems science, mathematical models, and computer languages alike are media. They impose their own 'grammars' and hidden assumptions upon the user as content. But science, the child of literacy, has hitherto ignored the effects of literacy on itself" (*Take Today* 1972, 136). In paradigms, which Kuhn argued were indispensable for science, McLuhan detects the paradoxical imposition of a tyranny of concepts: "All paradigms are traps" (ibid., 137). His theory differs, as later will his "new science," and he asks:

> Who will define `scientific truth'? Who will expound the hidden biases not only of scientists but of science itself?...Scientists who condescend to treat language and literature as minor amenities for undisciplined minds have all the while ridden blithely on the coattails of literacy. Without literacy as ground for perception, there could be no figures for science or mathematics or logic. (ibid., 125)

Western science, argues McLuhan (citing Havelock's *Preface to Plato*), is linked to the history of literacy, and unconsciously depends upon the introduction of the phonetic alphabet and later the printing press. His core theory of cultural transformation is now applied to a critique:

> Any philosophy that considers sensations and concepts as mere "reflections" or "copies" of material objects in the human mind fails to account for the continual transformation of sensory inputs into outputs of quite different kinds. Food for the mind is like food for the body; the inputs are never the same as the outputs! This pattern of non-linearity is evident in every human activity. AS "FIGURES" ALL SENSES CREATE THEIR OWN SPACES, WHICH ARE METAMORPHOSED BY INTERACTION WITH THEIR ENVIRONMENTAL "GROUNDS." "Causes" become "effects" via concepts, whereas effects merge with causes in process pattern recognition via percepts. (ibid., 137)
>
> "The poets and artists are masters in anticipating such gaps decades before they become dangerous." (ibid., 139) "Being overtaken by the future is the terror in the rear-view mirror!" (ibid., 141) "AT ELECTRIC INFORMATION SPEEDS ART AND SCIENCE AND NATURE CONVERGE THROUGH UNDERSTANDING MEDIA" (ibid., 148).

On my interpretation, McLuhan turns away from history and the organic body and towards an increasingly synchronic formalism over the Last Decade. In part this turn arises from his diagnosis of contemporary conditions, as noted above in the discussion of simultaneity and the speed of light. However, his inability to find a collaborator so as to realize his Baedecker in the Last Decade meant that the core dynamics of his theory of mediamorphosis reached a fruition in his thinking that was not achieved for the historiographic patterns. (Below I will indicate how the historiographic patterns shift as illustrated in the posthumous *Laws of Media*). I believe that had he been able to do so, McLuhan would have deepened his profound recognition of the need for a new humanist science, which he first advances in scattered references in *Take Today* (1972, 150-1). "In 1850 science looked like the bandwagon of progress that had replaced the anarchy of humanist history" (Ibid., 69). Under the relentless pressure for more speed of information, "The things we assumed as the *ground* for human existence have simply been cancelled" (Ibid., 224). And in the final section, entitled "Eco-Log for Navigation":

> The familiar idea of 'making the news' now yields to making the world itself. For the best part of a century, we have been programming human consciousness with retrievals and replays of the tribal unconscious. The complementary of this process would seem to be the 'natural' program for the period ahead: *programming the unconscious with the recently achieved forms of consciousness*. This procedure would evoke a new form of consciousness radically different from former consciousness. Everybody becomes a voluntary participant in creating diversity without loss of identity. Man is the content of the environment he creates, whether of 'hardware' or 'software', whether of consciousness or unconsciousness. There is therefore no technical alternative to 'humanism', even though for many this would include the divine grace of the superhuman. (McLuhan and Nevitt 1972, 297)

On other fronts, McLuhan continues *The Mechanical Bride* and Explorations Phase linkage of the themes of media and education. He maintains consistently that for students and teachers, English literature offers a "control tower in communication study" because writers are often sensitive detectors of pattern shifts and effects of technology. He argues that "it is necessary to use the techniques of the investigator, of Sherlock Holmes, in

studying the transforming powers of the communication process. The electric age is necessarily the age of the data hunter, and even the man hunter" ("English Literature as Control Tower" 1974, 6). In *City as Classroom*, prepared with Katherine Hutchon and Eric McLuhan, the figure/ground analysis is applied to the training of sensory perception in the young. Figure and ground are not categories, but tools to help discover the structure and properties of situations (*City as Classroom* 1977, 31). Suggestions are offered for study of the properties and service environments of sixteen forms of media. *City as Classroom* is not a book to be read, so much as to be used; however, a note in the front advises the reader to begin with the first chapter in order to grasp the rest of the book. Slang and popular culture once again offer avenues for research. McLuhan concludes:

> Since the advent of electronic media such as computers, enormous amounts of information are now available in the classroom. We have already noted that in an age when answers are being discovered outside the classroom, questions belong inside the classroom; similarly, when an "information explosion" is occurring outside the classroom, the study of structures of information or "pattern recognition" can go on inside the classroom (1977, 165).

As his work shifts from the organic formalism of the Catalyst Phase, to a increasing preoccupation with synchronic and structural principles,[45] McLuhan's formalism nonetheless retains an "interactive character." The primary reason is that his work and practice as teacher and public intellectual is deeply rhetorical, in the classical sense, and he recognizes the significance of audience participation in all modes of communication ("Formal Causality in Chesterton" 1976, 253-55; *Letters*, 1987, 412; 1976, 525.) His rhetorical theory of communication is evident in the Chesterton essay (5) where he links his themes in a discussion of why Western philosophers and scholars have neglected study of formal causality in the arts and sciences:

> [T]he public [is] a formal cause in the sense that the public is always in need of some help in some area of concern, an area in which it is ignorant, or mistaken, or confused....Since scarcely anybody has studied the audience of any writer from Plato to the present,...I suggest that this reason is to be found in the visual bias of Western man. Visual man is

> typically concerned with the lineal and the connected and the logical. Visual order has regard to figure and not to ground. The audience is always the hidden ground rather than the figure of any discourse. ...However, without the interplay of figure and ground, no art or knowledge is possible." ("Formal Causality in Chesterton" 1976, 254-55)

By 1976, he concludes that research into the brain offers important clues to a plenary explanation for the dynamics of culture, corroboration for his insights, and a possible explanation for the incomprehension that his ideas attract:[46] "For thirty years at least I have been using the two-hemisphere approach under the names of the written and the oral the visual and the acoustic the hot and the cool the medium and the message figure and ground and so on. Now it turns out that medicine has been building a great beach-head for this approach with its new understanding of the two hemispheres of the brain" (*Letters* 1987, 521). McLuhan associates the left hemisphere with the literate and industrial First World, and the right hemisphere with the acoustic Third World, minus the phonetic alphabet. The new electronic environment "automatically pushes the right hemisphere into a more dominant position than it has held in the Western world since the invention of the phonetic alphabet" (ibid., 522). How does this dynamic work? "The two hemispheres naturally respond to the milieu or total surround in which people live and work." McLuhan writes this letter (and sends numerous duplicate copies) in order to help his correspondents "to follow my work more easily" (ibid., 359; 521). He continues: "My work has been a dialogue between the two hemispheres in which the characteristics of the right hemisphere are given so much recognition that I have been unintelligible to the left-hemisphere people. It happens that the left-hemisphere people are completely out of touch with the results and the formal characteristics of their own new electric technologies" (ibid., 522).

At once McLuhan has presented scientific corroboration for his abductive theories, which he takes more seriously than the earlier probe phase. He has explained why his critics seem so unreceptive to his ideas and he has opened up a line of research that focuses on the parallels between the brain and his other themes. It is tantalizing to reflect on the fact that just as Innis' last decade work on the paradoxical commodity of paper,

which could be transformed into paper and the medium of the press, so McLuhan has now found in the paradoxical brain and mind a possible source for the core dynamics and explanation for his historiographic patterns. In his 1978 article, "The Brain and the Media: The `Western' Hemisphere" McLuhan presents these ideas to communications scholars, recasts some of his themes, and draws out their implications.[47] "The dominance of either the left or the right hemisphere is largely dependent upon environmental factors" (1978, 55). Hemispheric specialization offers a dynamic for comprehension of the significance of the phonetic alphabet: "Luria's observations provide an understanding of how the written alphabet, with its lineal structure, was able to create the conditions conducive to the development of Western science, technology, and rationality" (ibid., 56). The brain in response to the environment configures cultural patterns, and through exposure to dominant media appears to be linked to visual or acoustic space. "However, hemispheric dominance does not mean there can be no interplay between the hemispheres" (ibid., 57). The corpus callosum bridges the hemispheres in the brain, and permits interplay, a biological parallel to the linguistic process of translation.

McLuhan draws the conclusion for communications scholarship that conventional approaches to study of media and effects represent an (unconscious) lineal and left brain bias, which he illustrates with the influential "pipeline model of hardware container for software content" proposed by Shannon and Weaver (1978, 58-59). This concentration on figure (and pipeline) is overcome in a right brain orientation, which emphasizes the ground of media effects. For example, "the side effects of telephone or radio assume a complex system of electric technology which transforms the entire society" (ibid., 59). "[T]he side effects of any communication system tend to be an entire environment of interfacings"--a point which would be dismissed by the Shannon Weaver model of communications as irrelevant or "noise," but which McLuhan considers the ground, and thus (along with the figures) the proper focus of the study of media effects (ibid.). Again, as he had argued in 1964, the "generation gap" is one side effect of the ground of

pervasive television technology, as the young grow up natives in an emerging electronic environment, alien to their parents and print-based institutions. (ibid., 60)

He pushes towards an encyclopaedic and abductive interpretation, and his theory of cultural transformation is increasingly preoccupied with the synchronic life of artefact forms. Extensions remain, as all innovations are extensions ("Causality in the Electric World" 1973, 2), but the theme of organic extension is muted as compared to the Catalyst Phase. In the tetrad he will modify this aspect of the core dynamic to the question what is amplified, extended or enhanced? The shift begins in 1970 (*Letters* 1987, 416-19). Confirmation for the observation that McLuhan's thinking shifts to a synchronic formalism lies in the increasing attention he pays to formal causality. Again his focus is in part on the claims of natural science, and what he perceives to be the neglect of the literate grounds for conventional science. "What most scientists still fail to perceive is the 'visual' bias of logical inference imposed by Western civilization itself" ("Causality in the Electric World" 1973, 12). McLuhan diagnoses the obliviousness of the scientist to the hidden ground of Western culture in the printed word ("Causality in the Electric World", 3-4), and agrees with Mario Bunge who had observed that the Greek idea of four causes had become one: efficient causality. McLuhan argues that the decline of formal causality accompanies the pervasiveness of typographic literacy.

In the 1976 essay on Chesterton, his rhetorical and grammatical approaches to theory are merged. Rhetorically speaking, the public is the formal cause or ground for an author's work ("Formal Causality in Chesterton", 254). Formal causality cannot be abstracted "since it is always a dynamic relation between the user and his ever-changing situation" (ibid., 258) yet, as the grammarian observes, "In the everyday order, formal causality reveals itself by its effects.... There is a strange paradox in this, because since the effects come from the hidden ground of situations, the effects usually appear before their causes. When a Darwin or an Einstein appears, we say `the time was ripe' and that the figure appeared in its natural ground" (ibid., 256). Like McLuhan, "Chesterton's awareness of the

figure/ground consequences pervades his studies of history and human thought in general" (ibid., 257). Speaking as rhetor:

> It was the "rhetorical" interplay between philosophy and its public which was eliminated by Descartes in the seventeenth century with the result that formal cause was transferred from the public to the subjective life of the individual philosopher or student of philosophy. The further consequence was that the "content" of philosophy and the arts became relegated to efficient causality. Formal causality simply ceased to have any conscious role in the arts and sciences from then until our own day. Chesterton was part of the avant garde in re-discovering formal causality in his multi-levelled grasp of his public and his themes. (ibid., 258-59)

McLuhan moves away from history because he concludes that under electronic conditions, conventional history is abolished and all of what is known about the human past can be retrieved in a simultaneous present.

> In today's ECO-world of electric information that flows unceasingly upon us from every side, we all encounter the predicament of Alice in Wonderland. Now effects merge with causes instantly through speedup, while "software" etherealises "hardware" by design. All rigid distinctions between thinker and doer, observer and observed, object and subject are being eroded by the "rim-spin" of electric media. Old ground rules and human perceptions are being transformed by this new resonant surround where nothing is stable but change itself. But like water to a fish, the environment we live in remains hidden. (ibid., 1)

He is also retrieving Gideon's observation that "History is not a compilation of facts, but an insight into a moving process of life" (*Take Today* 1972, 15). History itself, as he had repeatedly observed for literature, has become an "observatory of change" where "the cultural historian can reveal the hidden factors in the cultures of the past" (ibid.). In this fresh sense, history is a kind of counter environment. McLuhan now takes his recognition of the significance of Gideon's and Innis' historical work, and expands it from 'feedback' to 'feed forward' (Ibid., 16). Writes McLuhan: "When we push our paradigms back, we get 'history'; when we push them forward, we get 'science.' " (Ibid., 15) Where he identified his position with cultural historians in his doctoral work, in *Take Today* (15) and the work of the Last Decade, McLuhan becomes the master pattern watcher, who, like Vico, must invent a new science. Midway through the decade, he invites historians of

technology to test his hypotheses when he announces his 'scientific' laws of media: "I am not primarily a historian [note the equivocation], so my reference base is not historical. However, I should like to test the validity of my laws in terms of history:...Does the history of technology "prove" or "disprove" my postulates?" (1975, 75)

This shift to synchronic formalism and the growing preoccupation with formal causality also pervade his literary criticism. Two essays are published, on Ezra Pound (1977) and T.S. Eliot (in Bessai and Jackel, eds. 1977), which analyse the formal qualities of the approaches taken by the two modernists in a wide-ranging case study of their collaboration on editing Eliot's *The Waste Land*. In these essays, McLuhan also returns to the language of the trivium, and contextualizes Eliot as the rhetor, and Pound as the grammarian.

Returning to the trivium and his grammatical and rhetorical roots, McLuhan's tetrads present an ideogram of formal dynamics and principles. Recognizing that a negative scholarly consensus has been achieved on his work in the Anglo-American-Canadian milieu, and in response to his growing number of critics, he introduces, in two articles, the laws of media (1975;1978). By scientific McLuhan intends at one level a dictum derived from Karl Popper: a scientific statement is one that is set forth in such a manner that it can be disproved. This desire for the legitimacy of science is partly rhetorical: it is an attempt to answer his critics. After his criticisms of old science, the posture is a bold move reminiscent of the slogan, "if you can't beat them, join them." Read closely, however, the tetrad offers a rival to scientific claims to legitimacy, a new humanist science arising from rhetoric and grammar to replace the victorious successor to logic and dialectics. The recognition that animates the new science is the fundamental place of language. McLuhan makes his argument that all human artefacts share a linguistic base, and likewise the tetrad consists of a linguistic construct in a four-part ratio. Yet it is important to note that McLuhan's theory of communications as transformation partakes of his understanding of technology and language: man is the tool making animal, and his first great tool is speech. It is also worth note that he continues to search for the core dynamics in the operations of

the brain, thus seeking a biological and physical correlate to his linguistic explorations. McLuhan's claim is that all human knowledge is shaped by relationships with dominant technologies and media forms, considered as artefacts that are not "natural" but have been made. His new science includes and explains the old.

He weaves his preoccupations with scientific and artistic insight into an account of the dynamics of life with artefact forms. He insists that the basis for his laws of media is inductive, but sets out an account that is compressed, synchronic, formal, linguistic, structural, and less historical than his earlier work. "Exploration of the `laws of the media' opens up the matter of the grammar and syntax of each artifact" ("Laws of the Media" 1977, 175). The "hypothesized" laws are heuristic, meaning for McLuhan that they begin with ignorance and percept, not knowledge and concept. The tetrad form is open, and embodies not statements, but rather four questions: What does any artefact enhance? What does it make obsolete? What does it retrieve that had been rendered obsolete earlier? What does it flip into when pushed to the limits of its potential? (ibid., 175) (See Illustration 8.)

McLuhan wrote, in the journal *et cetera*, that: "The `Laws of the Media' are structural forms closely related to metaphor" (1977, 177). In its formal characteristics, the metaphor has four terms which are discontinuous, yet internally related, comparable to the ratios of analogy. This works along lines suggested by Aristotle: "It follows that the soul is analogous to the hand: for as the hand is a tool of tools, so the mind is the form of forms and sense the form of sensible things." (ibid., 176). Thus he clarifies his synchronic position: "all the extensions of man, verbal or non-verbal, hardware or software, are essentially metaphoric in structure, and [they] are in the plenary sense linguistic" (ibid., 175). The laws work in both verbal and non-verbal operations, but describe human artefacts, not the operations of nature. (ibid., 176-77): "[T]hey are a testimony to the fact that the mind of man is structurally inherent in all human artefacts and hypotheses whatever." (ibid., 176) The ratios (analogical proportions) also extend to technology. (ibid., 177). Thus the laws of media are a formal summation, compressed into an

ideogram, of McLuhan's observations on the operations and effects of human artefacts on man and society. All our artefacts and technologies are words, or forms of speech, outerings and utterings, of man (ibid., 175). In a state of constant interplay and metamorphosis, the tetrad expresses a dynamic four-part motion.

Much earlier in *Understanding Media*, McLuhan had observed that all media are metaphors in their active power of translation. In the Last Decade, his theory has found a ground in language and the modifications of our own brains and minds, not in history. His use of analogy, striking in the 1960s, when he linked the major media revolutions of orality to literacy, manuscript to typography, and mechanical to electronic, now becomes detached from history. He applies a version of Aquinas and Aristotle to a growing sense that intelligible principles are at work in the dynamics of media forms, and his attention is directed to the structures of relationships with and within these forms. In other words, his attention focuses increasingly on the core dynamics. Yet I do not mean to overstate the shift, merely to call attention to the development of his thinking, for McLuhan does not perform a purely linguistic reduction, and underscores the fact that it is material, physical, and psychological operations, as well as verbal operations, that his laws are designed to encompass. More will be said on the success of this endeavour in the last decade discussion.

His shift to a synchronic formalism has two motives. First, as grammarian, he is generalizing his insights into a formal account of the life of all human artefacts. He is pursuing the electronic dynamic and working out its consequences for his discoveries. Second, as rhetor, he is responding to his critics, and asserting a new science as he critiques the bias of communication of old science.

McLuhan keeps watching his topic media, as part of the wider study of the life of techno-cultural forms. His "A Last Look at the Tube" (1978) reveals the Last Decade foreboding and continues his probing of the quality of etherealization. He has become as negative regarding television as those who once dismissed his work: "Discarnate man, deprived of his physical body, is also deprived of his relationship to Natural Law and

physical law....The TV experience is an inner trip, and is as addictive as any known drug. The discarnate TV user lives in a world between fantasy and dream, and is in a typically hypnotic state which is the ultimate form and level of participation"(ibid., 46). And, "[w]hen the viewer himself becomes a kind of discarnate information pattern, the saturation of that pattern of an electric environment of similar patterns gives us the world of the contemporary TV user. This is a parallel to the computer--the only technology that lives on, and produces the same material"(ibid., 48).[48] McLuhan uses the terms angelization and discarnate man to describe the displaced person's experience of the abolition of space and time under electronic conditions. Of course, McLuhan's shift in personal opinion does not eliminate the space opened up by his previous stance of suspending premature judgement on media. In fact, it illustrates the obvious fact that his suspension of values had never eliminated judgement; instead he called for investigation open to the situation, prior to premature conclusion. On balance, then, McLuhan's humanist contribution to communications and media study is to increased autonomy and understanding through critical awareness of the media environment. His is an interactive formalism, not a determinism? As McLuhan remarks in "Causality in the Electric World": "Truth is never a label; it is not something we match. Truth is something we make with all our senses in a conscious process of remaking the world as the world remakes us physically, psychically, and socially" (1973, 17).

The Afterlife Decade.

> "In tetrad form, the artefact is seen to be not neutral or passive, but an active logos or utterance of the human mind or body that transforms the user and his ground."
>
> --Marshall and Eric McLuhan, Laws of Media

The Afterlife Decade follows McLuhan's death in 1980 and represents a fifth phase in his Phases of Intellectual Production. His private papers are sold to the National Archives of Canada in Ottawa where the extensive collection is catalogued (partly by Philip Marchand) and opens to the public in 1988. A selection of his letters is assembled by his

widow Corinne, and his agent, Matie Molinaro. These are published with important biographical and editorial commentary by William Toye in 1987. Collaborations undertaken near the end of his life now appear. *Laws of Media: The New Science* (1988), is completed by son Eric. *The Global Village: Transformations of World Life and Media in the 21st Century* (1989), finished by co-author Bruce Powers, covers computer-assisted telecommunications and incorporates earlier themes and essays with those developed over the decade. Other books appear that draw heavily on previous collaborations, such as Barrington Nevitt's gloss on McLuhan in *Communication Ecology* (1982) and Robert Logan's *The Alphabet Effect* (1986).

Laws of Media: The New Science

With the appearance of these late collaborations the question of authorship becomes more complex. *Laws of Media* is an amalgam of the Last Decade of McLuhan's work, and a manuscript had been prepared and circulated prior to McLuhan's death (Sanderson and MacDonald 1989, 110). The final work bears Eric's imprint, in particular in the introduction and in his chapter on "Media Poetics."[49] In *Laws of Media*, McLuhan's concern with transformation and retrieval of the Early Phase work on the trivium is apparent, and the New Science is defined as the retrieval of the obsolesced approaches of rhetoric and grammar. McLuhan endorses his own perceived legacy, invoking Bacon's and Vico's parallel grammatical and rhetorical traditions as providing the context within which his new science takes its place in intellectual history. Bacon's doctrine of the four idols offers clues to the bias of communications imposed by media, as do Vico's four axioms and the principle that what humanity can know is what it has made. This is a humanist science, based on the prise de position that: "The study of human media and technologies must begin with their humanity and remain steeped in the study of the senses" (*Laws of Media* 1988, 4). *Laws of Media* represents the synoptic apogee of the synchronic dimension of McLuhan's theory of mediamorphosis, as the laws encompass the operations of all human artefact forms, from computers to philosophies.

Eric McLuhan's account of the genesis of the *Laws of Media* illuminates the nature of his father's intellectual production. Eric describes the origin of *Laws of Media* as a revision of *Understanding Media, as requested by McLuhan's publisher*. All of McLuhan's earlier works are in fact synthesized, often verbatim. The major serious criticism of the earlier book, writes Eric, was that it was not scientific. *Understanding Media* was satire, and the question became how to make it scientific, but not conventional science, which would subvert the insights advanced. The answer was a new science, but what did `scientific' mean? As noted in the previous discussion, McLuhan had referred to Vico's work from the Early Phase onwards, and to the new science in *Take Today* (McLuhan and Nevitt 1972). After two years of searching, Eric reports that McLuhan found in Karl Popper's *Objective Knowledge* the dictum that a scientific statement was "something stated in such a manner that it could be disproved" (*Laws of Media*, viii). McLuhan returned to his previous work in search of these core laws. *Understanding Media* provided three laws: technologies and artefacts are extensions; there is sensory closure and equilibrium so that when one area of experience is enhanced, something else is diminished; and every form pushed to the limit of its potential reverses its characteristics. Eric reports that retrieval was discovered three weeks later, and had been the main theme of *From Cliché to Archetype*. With Eric and many other collaborators, McLuhan during the last decade undertook a plenary study of media, from alphabet to electricity, and the variety of spaces made by the senses, including acoustic and visual space. (See table ##) Significantly, the scope that had always been apparent in his approach was applied now to all artefacts, considered in the special sense that McLuhan had previously described for media: "each of man's artefacts is in fact a kind of word, a metaphor that translates experience from one form into another" (*Laws of Media*, 3). Making this linkage between speech and artefacts erases the distinctions between art and science, and makes it possible for insights in one field to serve and enhance the other. (See table ##).

The laws are linked directly to the core theme of transformation: "Simply knowing in advance which transformations to expect, knowing where and how to look, lets you

predict the effects of any new device or technique before they actually appear in time and experience" (ibid., 8). It can be objected that without any ability to incorporate history, and the sophisticated (and arguably hermeneutic) insights of the historiographic patterns, that the tetrads run the risk of abstraction, and of becoming detached from the flux of experience with structured human artefacts that the tetrads are devised to explain. The laws and tetrad have value as consciousness-raising devices and further formulate the core dynamics of relationships with techno-cultural artefact forms as diagnosed by McLuhan. Yet the lack of specifics and neglect of attention to historiographic pattern detection makes it difficult to support the claim for prediction and presumably control. This statement of the tetrad once again confirms the synchronic formalism of McLuhan's theory of the Last Decade. The tetrad is detached from history, from the body and the organic.

To see how the laws work, it is necessary to retrieve, as the McLuhans do, the trivium. "The proverbial rivalry between the two camps [grammarians and rhetoricians or the Ancients, and the Dialecticians or the Moderns] and their intellectual wars continue apace today, albeit largely unknown to the combatants" (ibid., 10). "With *Laws of Media* we launch a fresh campaign in the war, against the futility of deploying the science of the Moderns of recent decades and centuries to deal with matters of media, as distinct from messages." The proposed new science accounts for these biases of communications and culture "and in some measure compensates for them, by the tools of figure and ground" and by the discussion of "the sensory bias imposed on us by our extensions" (Ibid., 11). This is Innis' bias of communications, although the term is surprisingly not mentioned (eg. ibid., 37; 105).

The historiographic patterns have migrated now into terms that reflect the influence of an important 1936 essay by Cambridge classicist F.M. Cornford, "The Invention of Space." (This essay will be discussed in Chapter 2). (See illustration 8.) Acoustic space appears in two phases: pre-Euclidean, or prior to the phonetic alphabet, and post-Euclidean, in the twentieth century. Visual space has its genesis in the introduction of the phonetic alphabet, and its entrenchment after the printing press. Pre-Euclidean is

Illustration 8

McLuhan's Theory of Techno-cultural transformation or mediamorphosis
Historiographic Patterns II

"Operating System"	**Technology**	**Cultural Result**
Pre-Euclidean/Protean	Speech	Pre-Literate Acoustic Space
Euclidean	Writing	Visual Space
Later Euclidean	Typography	Mechanical Visual Space
Post-Euclidean Protean	Electric/Electronic	Post-Literate Acoustic Space

linked to the mythical figure of Proteus, who stands in for the constant interplay of all senses (synaesthesia) and shape shifting of all forms. Oral to literate to typographic to post-Euclidean and electronic are important categories in *Laws of Media*; however their importance does not reside in their historical quality. This is played out in the enduring theme of the dual modalities of experienced space. The McLuhans recognize that there are as many forms of space as there are senses (ibid., ix); however the acoustic (ear) and visual (eye) spaces are primary. A hidden subtext for the book is speed and simultaneity: time seems transformed by electronic media, so that all history seems contemporary. Thus the tetrad itself is perceived as simultaneously present, and without historical dimension.

McLuhan's Last Decade orientation to findings on hemispheric specialization are linked to space, so that the right brain is associated with acoustic, and the left brain with visual space. Evidence is advanced for these experiences of space as distinctive experiential and cognitive modes that have unfolded throughout history. McLuhan's theory of communications as cultural transformation draws together these themes and his contemporary media work: "For use in the electric age, a right-hemisphere model of communication is necessary, both because our culture has nearly completed the process of shifting its cognitive modes from the left to the right hemisphere, and because the electronic media themselves are right-hemisphere in their patterns and operation. The problem is to discover such a model that yet is congenial to our culture with its residuum of left-hemisphere tradition" (*Laws of Media*, 90-91).

Continuing to retrieve earlier themes, the McLuhans write: "The wars of the Ancients and the Moderns were grounded in a rivalry between the hemispheres....laws of media offers a bridge between the hemispheres, a dialogue-structure in accordance with the role of the corpus callosum, which neurosurgeons identify as the organ that facilitates interplay between the two types of cognition" (ibid., 123-24). Aligning the proposed laws with George Steiner's (1975) discussion of translation and the "hermeneutic act" the battle cry sounds: "The tetrads render obsolete all groundless dialectical and systematic Marxist approaches to interpretation of social processes and technological transformations of

culture by flipping the discussion into a kind of linguistic of real words" (ibid., 127). This refers to the discovery that artefacts are metaphors with the power to translate and transform: "The laws of the media, in tetrad form, bring logos [the trivium combines the arts of the logos] and formal cause up to date to reveal analytically the structure of all human artefacts" (ibid., 127). "The laws of media in tetrad form belong properly to rhetoric and grammar, not philosophy;...This is to place the modern study of technology and artefacts on a humanistic and linguistic basis for the first time" (ibid., 128). What is not quite so apparent here is that the ability to encompass both cultural and technological, both symbolic and material phenomena that McLuhan had been inspired to by the historical innovations of Innis and Gideon is in eclipse on this formulation. The tetrad usefully helps raise questions about all human relationships with artefact forms, yet as presented in *Laws of Media* it runs the risk of abstraction as a linguistic formalism from the very ground that it seeks to cover. The further insistence that the tetrad is paradoxically an heuristic law without theory (ibid., 7), may contribute inadvertently to the obsolescence of McLuhan's powerful insights into the historiographic patterns. Without these patterns, the needed context for understanding media and technologies, including the tetrads, is missing. This is of course quite a different problem from that conventionally raised against McLuhan. Once again, the McLuhans insist that the laws of media are not deterministic. Media determinism "is only possible while the users are `well-adjusted'--sound asleep." (ibid., 128). And, "[t]here is no inevitability where there is a willingness to pay attention" (ibid.).

McLuhan's achievement is a complex gestalt, comprehension of which requires a whole reading of his works. Read in context, the *Laws* serve as a remarkable reminder of McLuhan's unique and original contribution, and the development of his ideas in the Last Decade. A more convincing summa, in my view, would require reunification of the core dynamics with an updated version of McLuhan's previous insights into the historiographic patterns. This move, as I will attempt to suggest in Chapter 2, should be undertaken on the basis of a reunification of the work of Innis and McLuhan within a communications

history tradition. Furthermore, as I will restate in the conclusion to this section, it seems quite possible to identify an emergent, heuristic and coherent theory of mediamorphosis, or techno-cultural transformation, in McLuhan's corpus.

The Global Village: Transformations in World Life and Media in the 21st Century

The Global Village takes transformation as its subtitle, and offers a final recognition of the predominance of this theme. Taken together with *Laws of Media*, it also indicates that there is no one path for application of McLuhan's insights. Powers has a distinctive style, and incorporates numerous sources available after McLuhan's death. The book takes an "aesthetic and technologic" approach to the discovery of the tetrad, and meditates on electronic communication technologies, which travel at the speed of light. The warning is that the global impact of video-related telecommunications technologies will likely bring about invisible transformations:

> Robotism, or right-hemisphere thinking, is a capacity to be a conscious presence in many places at once. Communication media of the future will accentuate the extensions of our nervous systems, which can be disembodied and made totally collective. New population patterns will fuel the shift from smokestack industries to a marketing-information economy, primarily in the U.S. and Europe. Video-related technologies are the critical instruments of such change. The ultimate interactive nature of some video-related technologies will produce the dominant right-hemisphere social patterns of the next century. For example, the new telecommunication multi-carrier corporation, dedicated solely to moving all kinds of data at the speed of light, will continually generate tailor-made products and services for individual consumers who have pre-signalled their preferences through an ongoing data base. Users will simultaneously become producers and consumers. (*Global Village* 1989, 83)

In this book, the pros and cons of right hemisphere predominance surfaces. The prospect of a collision between the Visual space of the Gutenberg Galaxy and the Acoustic space of the discarnate electronic media looms. With the book McLuhan hoped to reach a new generation, and he told Powers "the sons and daughters of the `Flower Children' would transform the world because they would find words to translate what had been ineffable to their parents" (ibid., ix).[50] A dialogue between McLuhan and Powers entitled "Angels to Robots" indicates how McLuhan worked with all his collaborators to apply his percepts and tetrads to developments in media and technologies during the Last Decade. For example, Powers reports from these conversations, a computer as a research and communication instrument could enhance retrieval, render obsolete mass library

organization, retrieve the individual's encyclopedic function, and flip into a private line to speedily tailored data of a saleable kind (ibid., 143).[51]

A review of McLuhan's theory of mediamorphosis

Let us now review the major themata in McLuhan's theory of mediamorphosis. His premise is that it is experience, not formal knowledge that requires understanding and explanation. "Everybody experiences far more than he understands. Yet it is experience, rather than understanding, that influences behavior, especially in collective matters of media and technology where the individual is almost inevitably unaware of their effect upon him" (*The Gutenberg Galaxy* 1962, 318) He considered his own approach, and that of Innis, to media study an innovation. "What is called communication is, on the one hand, the conventional transportation theory, with its concern with the movement of data from point to point; on the other hand, there is the study of the transformation of individuals and groups by the very instruments which they employ in relating to each other" ("English Literature as Control Tower in Communication Study" 1974, 4). In McLuhan's transformative model, media and technologies are not neutral things out there, obedient to our conscious will, carrying our messages like packages. Instead of the "conduit metaphor" (Reddy 1979) of a pipeline of communications, McLuhan continuously reformulated the way media operate as active environments, and how individuals, groups, and cultures form relationships with these environments.

In his theory of mediamorphosis, as I have interpret it, he diagnoses two distinct processes: shifting historiographic patterns and core dynamics and links them through a techno-cultural and media ecology. The changing historiographic patterns characteristic of the mixed environments of hybrid media technologies form the technological ground or conditions for culture, by making certain relationships possible. The core dynamics characterize the processes by which the group or individual is transformed by interaction with their extensions in these media environments. In turn, users continuously transform

the environment through ongoing relationships. McLuhan also addressed the topic of interrelationships among media, and specified formal characteristics for each medium.

McLuhan directed attention to four core dynamics of mediamorphosis. The original insight of the core dynamic, which he believed Innis was first to recognize explicitly for communications and media study, was that the forms of human artefacts affected all aspects of culture by operating on the human sensorium. McLuhan's core dynamic unfolds in four parts: extension, interiorization, making of new environments, and continuous transformation. In one variant (prominent in Laws of Media) McLuhan stresses for the latter a flip or reversal into a new environment.

1. *Extensions.* "All media are extensions of some human faculty - psychic or physical" (*The Medium is the Massage* 1967, 26); "Any extension, whether of skin, hand, or foot, affects the whole psychic and social complex" (*Understanding Media* 1964, 4). The psychic extensions included senses, chiefly the ear (orality) and the eye (the printed page), but McLuhan stated clearly that all the senses could be extended. He argued, for example, that television of the 1950s and early 1960s extended the haptic sense of touch, which unified the senses, not vision. In the Last Decade, he diagnosed all artefacts as linguistic, although he continued to present his earlier formulations with respect to extensions of the body. He became increasingly preoccupied with how the brain was implicated in the process of extension and modification of the senses when the central nervous system itself was extended via electronic media including the computer.

2. *Invention of new environments.*"... 'the medium is the message' can perhaps be clarified by pointing out that any technology gradually creates a totally new human environment. Environments are not passive wrappings but active processes" (*Understanding Media* 1964, vi); "The ground rules, pervasive structure, and over-all patterns of environments elude easy perception" (*The Medium is the Massage* 1967, 68). These extensions create environments which can be closed systems; however, the process is not static, because the introduction of newer media or technologies alters the pace, scale, and scope of existing extensional environments.

3. *Interiorization* of the made environment in new world views: "Media, by altering the environment, evoke in us unique ratios of sense perceptions. The extension of any one sense alters the way we think and act--the way we perceive the world" (*The Medium is the Massage* 1967, 41); "...I am talking about media in terms of a larger entity of information and perception which forms our thoughts, structures our experience, and determines our views of the world about us. ... The channels and impact of today's electronic communication systems provide the informational foundation upon which we order, or structure, these experiential perceptions" (1975, 75). The environments are taken for granted and become invisible unless tactical counter-environments are devised.

4. *Continuous transformation* of users through interaction with environments engendered by extensions in media and technologies. McLuhan diagnosed a continuous process of translation via our extensions through media and technologies:

> All media work us over completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical, and social consequences that they leave no part of us untouched, unaffected, unaltered. The medium is the massage. Any understanding of social and cultural change is impossible without a knowledge of the way media work as environments (*The Medium is the Massage* 1967, 26).

The clues to understanding this transformative process lie in attending to these core dynamics in interaction with the extensional environments, and to the reorganization of the sensory ratios and imaginative landscapes. In addition, as discussed below, it is necessary to scrutinize the unique properties of media and technologies, as they extend particular senses and engender closure or sensory completion by groups and individuals. The power of media lies in their forms, not their content.

The introduction of any major new medium according to McLuhan brought about techno-cultural transformations or historiographic patterns, analogous to the revolutionary impacts of writing, the printing press, and electric/ electronic media. Within Western culture, McLuhan divided history into successive periods: oral, literate, typographic, and and electric/electronic. He concluded that the current electric age began in the nineteenth century with the telegraph and, by the later twentieth century, constituted an Age of Information and Communications. In the opening of *Understanding Media*, McLuhan

trained his observation on this contemporary period: "During the mechanical ages we had extended our bodies in space. Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned." Later in the decade, he concluded: "By putting our physical bodies inside our extended nervous systems, by means of electric media, we set up a dynamic by which all previous technologies that are mere extensions of hands and feet and teeth and bodily heat-controls--all such extensions of our bodies, including cities--will be translated into information systems" (*Understanding Media* 1964, 57).

The relationships, possible and actual, with new media always unfolded over time and within the matrix of culture and current techno-cultural conditions (*Understanding Media* 1964, 11). This ongoing process is historical not essentialist, dynamic not determinist. McLuhan stated clearly (to take a common misperception) that television would become something other than TV as we know it once higher screen resolution was achieved, and would require its own distinctive analysis should the conditions of its reception and properties as a medium change (Steiner 1969, 271; "Commercial Television in a New Light" 1974).

Media environments become visible when they are in the process of being supplanted by the introduction of newer media and technologies. He believed that the clarity of his, and Innis', insight into the Gutenberg Galaxy was only possible once print was in eclipse. From a new historical horizon, where digital electronic media are on the rise, the dynamics of transformation once again may become visible to the discerning intellect. The resurgence of interest in McLuhan can be explained in part by observing that we are once again experiencing the dramatic consequences of the introduction of new digital media and forms, such as networks of interconnected personal computers. This time, thanks to McLuhan, we are better prepared to grasp the invisible environments and their effects.

The most radical challenge to conventional thinking posed by McLuhan's work arose from application to the present of the sweeping epistemological conclusion he drew from his diagnosis of the historiographic patterns of mediamorphosis: "[W]e have confused reason with literacy, and rationalism with a single technology" (ibid., 15). McLuhan

argued, beginning in *Explorations*, that new electronic media would give birth to new forms of rationality and consciousness, but warned that in the rear-view mirror of print-based rationality.

McLuhan's theory of mediamorphosis offers a series of propositions on the relationships and wars among media. A key distinction animating these patterns was that between ear and eye, orality and literacy, visual and acoustic space. Touch, the unifying sense, seemed to McLuhan resonant with electronic media, including television. One medium did not replace another, although one could become dominant, rendering obsolete another, which then could be ready for later retrieval. By historical analogy with the revolutionary effects of previous new media, McLuhan identified certain generic observations of great value to media investigators. For example:

1. ***The medium is the message. Each medium has distinctive properties.*** These may take time to discover or to emerge. In a later phase or generation of media, a new medium finds its own forms and modes of expression. The message of any medium of technology is the change in scale, scope, and pace introduced into human affairs. McLuhan believed (following Aristotle) that at the moment of a medium's fullest potential, it flips into something quite different, in a sort of chiasmus. For example, the photocopier extends the printing press, renders obsolete the assembly-line book product, retrieves the idea that anyone can be an editor/author, and flips into the democratization of publishing by making anyone a printer (adapted from *Laws of Media* 1989, 145).

2. ***The content of a new medium is initially an old medium.*** So speech became the content of early writing as, for example, Plato wrote down the oral dialogues of Socrates. Movies filmed plays, television featured vaudeville (Ed Sullivan and Milton Berle), and later movies. A previous medium can become an art form - such as happened to movies after television - or an object of nostalgia.

3. ***Environments are active processes that operate through media ecologies.*** It is not content but rather the ecological relationships of experience formed with the media mix to which one must look in order to determine the impact of media environments on an individual, society and culture. No medium has its meaning alone or in isolation from other

media (*Project in Understanding New Media* 1960, 15). Periods of media hybrids--like the collision of print and electronic media--produce tremendous dislocations but also opportunities for cultural creativity. The relationships, possible and actual, with new media and the effects upon the users, unfold within the matrix of the culture. A cool medium requires participation by the user; a hot medium does not. The designations hot and cool are relative to the surrounding cultural temperature (or environment) which is partly determined by the media mix. McLuhan believed controversially that had society the will, media environments could be engineered so as to produce specific results; if we wanted to change the current situation we could--not by changing content or ownership, but rather, by changing collective exposure to the media mix, or the media diet. He explained:

> No society in history has ever known enough about the forces that shape and transform it to take action to control and direct new technologies as they extend and transform man. But today, change proceeds so instantaneously through the new media that it may be possible to institute a global education program that will enable us to seize the reins of our destiny--but to do this we must first recognize the kind of therapy that's needed for the effects of the new media. ("Communication in the Global Village" 1969, 166)

4. *Insight into the current environment arises from counter-environments.* Nothing is inevitable so long as we are prepared to pay attention, but the media study required for the understanding which precedes action is hard work. McLuhan believed that the creation of counter-environments by artists and others was one positive response to the narcissus-narcosis induced by the numbing into unconsciousness of extensions taken for granted as environments. Important clues can be found among the young who exhibit acute responses to new media, especially in their fashions and games. Media revolutions take place generation by generation. The curriculum within the schools may frustrate the learning process where it is currently overwhelmed by the dominant medium outside the classroom that provides a more powerful curriculum. New media inevitably prompt educators to devise new counter-environments, or curricula. The twentieth-century classroom can and should provide a sort of counter-curriculum, but must radically transform itself to take into account the surrounding media environment before it is able to provide this service.

Media study is essential to this process. One must also look for clues to the artists and persons of integral awareness who serve as a kind of distant early warning system for the culture at large. They create counter-environments with their work, which may permit perception of the nature of the imperceptible environment, or assist in adjustment to the shocks of the new. Alternatively, a new medium or technology may permit the operations of previously dominant media to become perceptible. History itself can become a form of counter-environment.

Up until the end of his career, he continued to search for structural dynamics or laws of media, dynamics that would permit human understanding of the patterned ways in which the introduction of new media transformed environments, sensory ratios, and cultures. Whatever one may think of the accuracy of McLuhan's observations (he obviously believed there was more to discover), he was well aware that his analyses applied to a moving present. He wrote in 1962, for example, that by then North Americans had moved about as far into the television age as the Elizabethans had shifted into the Gutenberg Galaxy of colliding manuscript and printing press cultures, that produced Shakespeare.

In my interpretation of his oeuvre, then, McLuhan's theory provides an original account of how we shape our world with artefact extensions and how we are transformed through our relationships with the environments that we both create and unwittingly encounter. Once recontextualized, his work provides a means for understanding not only media, but also the role of media, technologies and all artefacts in shaping how humans come to understand and experience as we do. This is why I conclude that he was performing a techno-cultural hermeneutics, and opening up the prospect of exploration of the grounds of understanding. Without doubt, the scope of McLuhan's insights exceeded their precision. This left plenty of room for his legatees to conduct their work. He opened the imaginative horizon in a historically effective way.

McLuhan's texts are intelligible on many levels and can provoke insight if taken on their own terms. The enduring value of McLuhan's ideas lies in their scope and the way in which he links his own insights with those of others into powerful metaphors and

formalisms for expanding the horizons of popular and scholarly imagination. McLuhan's multidimensional tactics are aspects of a larger strategy aimed at re-cognizing the unconscious assumptions imposed by media forms. In privileging scope over precision, McLuhan offered a barrage of insights. To comprehend his texts requires work on the part of the reader, but difficulty should not be mistaken for unintelligibility. I have shown the basis for concluding that his probes gave way in the Last Decade to explicit concern with theory and a new human science, and how this theory underwent a shift from diachronic and organic to synchronic formalism. McLuhan's diagnosis of master historiographic patterns and formulation of core dynamics have been discussed (under the term borrowed from Blaukopf) as mediamorphosis, a theory of techno-cultural transformation under electric and electronic conditions, in which through the process of interplay of senses with external forms of media and technologies, woven into and out of language, and cultures, forms of thought, experience and sensibility are continuously patterned and transformed.

McLuhan's theory of techno-cultural transformation or mediamorphosis is an interactive formalism, as relationships with artefacts are something we make; this is not a thesis of technological determinism. There is no inevitability, so long as we learn to pay attention to the forms of media, the grounds and the figures. Making the subliminal conscious is of course difficult and demanding, a task akin to making a fish aware of the water that extends, informs, and sustains it. But we are not fish, and McLuhan's work remains relevant for contemporary variants of this challenge.

Part 2: Strategies of Production

Two points deserve initial comment regarding McLuhan's strategies because the rhetoric of intellectual controversy over these methods significantly shaped his legacy, as Chapter 3 will establish. First is the question of overt values. As discussed above, after *The Mechanical Bride*, McLuhan maintained that an investigator should not succumb to the temptation to substitute value judgements before observation and reflection. Popular culture and the culture of the young usually seemed threatening to established notions of

culture, and McLuhan came to understand that the sermonizing responses of establishments, especially the teachers, obscured all possible awareness of the genuine new features of the situation under scrutiny: "If a few people could only stop asking whether this is 'a good thing or a bad thing' and spend some time in studying what is really happening, there might be some possibility of achieving relevance" (*Letters* 1987, 399). Of particular concern to his many neo-Marxist critics was that McLuhan did not consider that ownership or other indices of conventional power provided much of a guide to understanding media, convinced as he was that the transformative effects of dominant media forms and the environment of services and disservices affected owners along with everyone else. Of concern to his critics on the right, was that he considered that the past was not sacred for its own sake, but instead required scrutiny as to what was worth preserving in the light of contemporary experience. Explaining his strategy, he wrote: "Modern technology presumes to attempt a total transformation of man and his environment. This calls in turn for an inspection and defense of all human values" ("Sight, Sound and The Fury" 1954).

Second is the question of systematics. McLuhan did not found a formal school, as defined by sociologists (E.g. Tiriyakian 1979) and, during the 1960s, exuberantly rejected systematic methods on the substantive grounds that they frustrated creative discovery. A conclusion reached in the wake of reading Thomas Kuhn's *Structure of Scientific Revolutions*, for example, was: "General Systems science, mathematical models, an computer languages alike are *media*. They impose their own "grammars" and hidden assumptions upon the user as *content*. But science, the child of literacy, has hitherto ignored the effects of literacy upon itself." (McLuhan and Nevitt 1972,139). His emphasis on continual discovery and insight discouraged conventional scholars from undertaking the research he called for, the kind of work necessary to appreciate the discernible theoretical components of his work. To some degree, the lack of a previous context for appreciating McLuhan's work contributed to this outcome. It was understandably difficult to follow the increasingly aphoristic style of presentation of his insights. McLuhan seems to have recognized this fact, expressing private dissatisfaction with *Take Today*, in part due to its

origins as a conversation with his friend Nevitt, one that did not receive the careful thought and attention required to polish it into an effective book.

Egregious errors of misinterpretation flourished with impunity, in no small part because McLuhan's work can be dismissed as unsystematic or fragmented.The "figure/ground method" or the formalist tetrad could not overcome this enduring prejudice against his contribution. Marginal to the mainstream academy in many respects, once the novelty of his ideas had worn off and his celebrity faded, McLuhan and his sympathizers were in no position to mount an authoritative response. Furthermore, those who came to his defense, even when they could agree, were often dismissed as McLuhanites, or worse, technological determinists. The prospects have thus far been too limited to effectively penetrate a rhetorical space that has excluded positions sympathetic to McLuhan, except in a most fragmentary fashion, and little ground for correcting misinterpretations of his work.

Two techniques require additional comment by way of elucidating McLuhan's strategies of production: his non-linear prose and his characteristic repetition. Although indebted to the avant garde writers he continuously celebrates, McLuhan's rationale for what he called his "mosaic" style is integral to his theory: "Connected sequential discourse, which is thought of as rational, is really visual. It has nothing to do with reason as such" (Steam 1967, 264).

His repetition requires comment. He reworks themes, in sequels such as *to The Mechanical Bride* (*Culture is Our Business*), and *to Understanding Media* (*Laws of Media*), and within his texts. His major formulations undergo continuous transformation. For example:

> 1959 The medium is the message...
>
> 1964 The content of any medium is another medium
>
> 1964 "For the `message' of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs"
>
> 1967 The medium is the massage... The medium is the mass age...

1971 "... the user of the electric light, or a hammer, or a language, or a book, is the content. As such, there is a total metamorphosis of the user by the interface. It is the metamorphosis that I consider the message."

[I]n all communication the user of whatever medium is the content. (This turns out to be merely an ancient Aristotelian observation that the cognitive agent is and becomes the thing known.) (*Letters* 1987, 431)

When I say "the medium is the message", I suppress the fact that the user or audience or cognitive agent is both the "content" and maker of the experience, in order to highlight the effects of the medium, or the hidden environment or ground of the experience.

1974 The `meaning of meaning' is the relationship.

And, on the global village:

1960 The new electronic interdependence recreates the world in the image of a global village. (*Project in Understanding New Media*).

1967 The global village absolutely insures maximal disagreement on all points. It never occurred to me that uniformity and tranquillity were the properties of the global village. The tribal--global village is far more divisive--full of fighting--than any nationalism ever was... I don't approve of the global village. I say we live in it. (Stearn 1967)

1970 Since Sputnik put the globe in a "proscenium arch," and the global village has been transformed into a global theatre, the result, quite literally, is the use of public space for "doing one's thing." (McLuhan and Watson, *From Cliché to Archetype* 1970, 12)

McLuhan explains this technique under the term probes:

[R]epetition is really drilling. When I'm using a probe, I drill. You repeat naturally when you are drilling. But the levels are changing all the time....Most of my work in the media is like that of a safecracker. In the beginning I don't know what's inside. I just set myself down in front of the problem and begin to work. I grope, I probe, I listen, I test--until the tumblers fall and I'm in. That's the way I work with all these media (Stearn 1967, 273-74).

His probes are later cast into active theoretical principles or ideograms (designed for discovery, not embalming) and formally arranged into the four part diagrams of the *Project in Understanding New Media* and later the questions animating the tetrad.

Another strategy of production that requires comment concerns McLuhan's use of sources. He compresses his sources into textual mantras, which he repeats in later work, as a kind of intellectual shorthand, thus turning them into aphoristic figures, whose ground is the entire archive of the work under discussion, and his own previous commentary on that work. These mantras indicate text companions (as Bryan Green puts this) with whom or with which McLuhan's work is self-consciously in dialogue. For the reader familiar with either this literature or McLuhan's previous works, the presence of his sources is audible--from his outlaw artist companions, James Joyce ("My consumers, are they not also my producers" [*Letters* 1987, 252-53]) and Wyndham Lewis ("the artist is the only man who is writing a detailed history of the future because he lives in the present"), to those lesser known, but always interesting, such as Alex Leighton's "to the blind, all things are sudden" (*Letters* 1987, 435) and the anonymous: "[t]he Balinese say, we have no art, we do everything as well as possible."[52]

The repetitive pattern indicated by these mantras is an oral, formulaic style as well as intertextual. It is also--on the printed page--a form of compression, a complex way of evoking vast areas of thought. An example of this technique in operation is the use of Yeats' poem "The Circus Animal's Desertion." Its closing line,: "Now that my ladder's gone,/ I must lie down where all the ladders start,/ in the foul rag-and-bone shop of the heart" is the poetic melody of *From Cliché to Archetype* and expresses the *obsolescence and retrieval* process that McLuhan expresses in the tetrad as one of the laws of media. Baudelaire's "hypocrite lecteur, mon semblable, mon frere" gestures at the inclusion of the reader in the act of creating the work, and the essential tension between author and public whom he puts on; it simultaneously acknowledges the source of McLuhan's media study in the Symbolists and modernists, for Baudelaire's line is repeated in T.S. Eliot's *The Waste Land* (at the end of the first section). Later, the mantra may be repeated without mentioning Baudelaire or Eliot. If the reader has read neither McLuhan's previous work

nor his text companions, the figure may appear cryptic or poetic. A final example of how this works is Pound's phrase "the artist is the antenna of the race" (from the *ABC of Reading*), which migrates in McLuhan into the "dew line," and renders this name for the distant early warning (d.e.w.) radar system in Canada's north, a multilevel metaphor for the resonant interval in the artist, the man of integral awareness, where metamorphosis and insight happen, and the Canadian perceptual counter-environment to the United States. Whole fields are compressed and played out in McLuhan's work in this fashion: the principle of discontinuity between conscious and unconscious in psychology (Freud), of matter as particle and wave in physics (Planck, Heisenberg), the resonant bond in chemistry (Pauling), the mosaic anticipated in art (Cezanne, Seurat), and literature (the Symbolists).

Repetition of sources in the mantras served also as a form of corroboration. Once McLuhan discovered a parallel to his own developing thinking, he encapsulates it in his later work. Anthropologist E.T. Hall's articulation of invisible ground rules and body language for the patterns of culture, in *The Silent Language* (1959) and his many other books, provide for McLuhan important cross cultural corroboration. From *the time of the Project in Understanding New Media* onward, he celebrated Hall's work. Classicist Havelock's (1963) discoveries in *Preface to Plato* appeared to McLuhan to reinforce the insights of Innis and others, and to substantiate the ideas he had independently advanced in *The Gutenberg Galaxy* (1962), and from *Understanding Media* onward, McLuhan cites and hails Havelock's achievement. McLuhan's work draws into his scope a network of texts and authors which would not in "normal" scholarship (in Kuhn's sense) be considered together because of the disciplinary barriers preventing such juxtaposition. Acting on his aesthetic principles, McLuhan recognizes that juxtaposition can produce insight, and is the first to grasp the thematic unity among anthropologists (like Hall), classicists (like Havelock), political economists turned communications pioneers (like Innis), art historians (like Gombrich) and art design and cultural historians (like Giedion). Humanists, scientists, social scientists, McLuhan mines all in search of the clues for understanding.

The function of orality in McLuhan's style also deserves comment. His rhetoric of assertion is confident and aggressive. He accuses most academics of looking in the rear-view mirror instead of at what is happening around them. He disparages the work of many of the leading lights of the American broadcast industry (David Sarnoff) and social science (Paul Lazarsfeld, Wilbur Schramm) as print and content oriented. In a notorious incident, he presented a paper to which Robert Merton rises to object whereupon McLuhan retorts in a flippant and arrogant manner, "If you don't like those ideas, I have others." He broke the rules of academic verbal decorum (Sanderson and Macdonald 1989, 170).

His later style of work was intensely oral. He collaborated in lengthy conversations to produce books such as *Take Today*, *Through the Vanishing Point*, *City as Classroom*, *From Cliché to Archetype*, and, of course, the posthumous *Global Village*. After 1962, when his wife, Corinne, assisted him on an end gloss for *The Gutenberg Galaxy*, he did not prepare extensive indexes for his works. He dictated but did not read his letters after 1959. As a result there is an open and fluid quality to these works.

The question of McLuhan's approach to theory, and description in the Last Decade of some of his previous texts as "Menippean satire" now will be addressed. To begin with the question of why McLuhan called his work Menippean satire, this was by no means the only description he accepted for his work, once approving of the phrase "metaphysician of media", in a 1970 letter: "My metaphysical approach is not moral. That is why I get such great joy from contemplating these forms of culture....The language of forms is a source of perpetual joy and discovery that is quite inexhaustible" (*Letters* 1987, 413). Elsewhere he described his work as Thomist, but acknowledged that orthodox Roman Catholics did not accept this description (Stearn 1967). In his first book he felt he had tried and failed to satirize the situation he diagnosed in *The Mechanical*

Bride, while succeeding in *Understanding Media*. The later books of the 1960s can be viewed as Menippean satire, and all his textwork can be seen to have elements of satire.

However, this is not an exhaustive description of his corpus: his essays, for example, are not always satire, and the laws of media propose, as previously argued, a new science.

Various scholars, including Theall (1971; 1989) and Eric McLuhan (1988) have noted McLuhan's use of satire. Most of the evidence comes from within his writings, and is explicit in his letters. Responding to a fellow Canadian English professor, whose views McLuhan believed distorted his work, he said: " Most of my writing is Menippean satire, presenting the actual surface of the world we live in as a ludicrous image" (*Letters* 1987, 517). Earlier, in 1971, he wrote to another critic: "I have no theories whatever about anything. I make observations by way of discovering contours, lines of force, and pressures. I satirize at all times, and my hyperboles are as nothing compared to the events to which they refer" (ibid., 448)

This relationship between satire and theory will be discussed shortly, in light of the copious evidence presented above that McLuhan was doing theory. A paradigmatic example of this sort of serious satire is to be found in *Understanding Media*:

> Physiologically, man in the normal use of technology (or his variously extended body) is perpetually modified by it and in turn finds ever new ways of modifying his technology. Man becomes, as it were, the sex organs of the machine world, as the bee of the plant world, enabling it to fecundate and to evolve ever new forms. The machine world reciprocates man's love by expediting his wishes and desires, namely, in providing him with wealth. One of the merits of motivation research has been the revelation of man's sex relation to the motorcar. (46)

Academics read this passage literally; for those who are attuned to McLuhan's work, it seems astonishing to read into this statement McLuhan's approval of what he described.

McLuhan repeatedly used the mantra in defense of his own work, "the best satire is non-moral." This phrase is the title of an essay by Wyndham Lewis. McLuhan refers to James Joyce in all his writings, beginning with the last line of his doctoral thesis. Certainly he believed Joyce to be indispensable for understanding twentieth-century media. Inspired by his father's interest, Eric McLuhan's doctoral thesis, which the two discussed frequently in the Last Decade, analyzed Joyce's *Finnegan's Wake* as an exemplar of Menippean satire. Eric made the technical point that no classification of Menippean satire had yet done justice to its rhetorical purpose: "Other satirists target a public figure or private vice; the Menippist attacks the reader for the purpose of playfully and therapeutically retuning his sensibilities for enhanced awareness of himself and his world. As readers and their sensibilities change, as language and literary styles and devices change, so do the tactics of Menippists" (E. McLuhan 1982, ii-iii).

Satire was not McLuhan's only stratagem of production, but it is crucial to the reappraisal of his work on its own terms. The introduction to the posthumous *Laws of Media* provides further support in a discussion of the lengthy attempt to prepare a sequel to *Understanding Media*.

> The style of *Understanding Media* had been deliberately chosen for its abrasive and discontinuous character, and was forged over many redraftings. It was designed deliberately to provoke the reader, to jar the sensibilities into a form of awareness that better complemented the subject matter. This is poetic technique (science, if you will) of a high sort, satirizing the reader directly as a means of training him (*Laws of Media* 1988, viii).

McLuhan found the genre of Menippean satire a congenial description for the effects he wanted to produce in the audience. Satire is a way to wake up an audience put to sleep by the narcotic effects of media. For McLuhan, satire meant creating an anti-environment. As educator and teacher, all his tactics were designed to provoke his audience. Some of the elements of Menippean satire as they may be found in McLuhan's work include:

1. Hyperbole, which is also a key tactic for advertising. Sweeping historical generalization and standing the familiar on its head are designed for effect on the audience.

This rhetorical tactic infuriated his commentators, to which he responded in a style characteristic of the Catalyst Phase:

> For me any of these little gestures I make are all tentative probes. That's why I feel free to make them sound as outrageous or extreme as possible. Until you make it extreme, the probe is not very efficient....Of course they sound very dogmatic. That doesn't mean you are committed to them. You may toss them away....I have no proprietary interest in my ideas and no pride of authorship as such....Exaggeration, in the sense of hyperbole, is a major artistic device in all modes of art. (Stearn 1967, 277).

By the Last Decade, McLuhan had become more serious, and replaced media probes with media laws.

2. Textual variety. The classic definition of Menippean satire was that it combined verse and prose in one genre (Coffey 1986). McLuhan extended this principle to his mixed media environment. Reading McLuhan is a continuous process of leaping from quotes, lines, ads, scraps from popular culture, medieval retrievals, and back to the prose of his own text. *Bride* uses visuals as part of the effect, and from 1954 on (when he collaborated on *Counterblast* with Harley Parker), McLuhan found collaborators to help execute in typography his adventurous verbal experimentation.

3. Satire is non-moral. This was a stance McLuhan arrived at after *The Mechanical Bride*. He believed that only a non-moral attitude that observed without imposing the observer's values, and absent premature indignation could possibly grasp the situation. In an exchange of letters with Marshall Fishwick, protesting misinterpretation of his work, McLuhan repeats, Lewis' statement: "my work is essentially satirical and non-moral, cf., the greatest satire is non-moral" (*Letters*, 506). The mantra expresses the conviction often echoed by McLuhan, that the artist, or man of integral awareness is regarded as the enemy of society, another of Wyndham Lewis's themes. McLuhan took the attitude, for example, expressed in a 1969 letter to E.T. Hall: "I deliberately keep my Christianity out of these discussions lest perception be diverted from structural processes by doctrinal sectarian passions. My own attitude to Christianity is, itself, awareness of process" (*Letters* 1987, 384).[53]

A more audience-friendly technique with similar ends is the pun, or humour. McLuhan had this to say about the uses of humour in *The Medium is the Massage*: "Humour as a system of communications and as a probe of our environment, of what's really going on, affords us our most appealing environmental tool. It does not deal in theory but in immediate experience, and is often the best guide to changing perceptions." In this parallel tactic we begin to get at what McLuhan was doing with satire, and how he thought of theory. He was trying to change perceptions, by making his audience aware of the modifications of their own minds, and searching for a tool to reach, so as to affect his audience. Satire, humour, puns, slang, all are key stratagems of McLuhan's production.

What motivated McLuhan to resort to satire? As a literary critic, and professor of English, naturally he might search for a literary form. In his media study he moved from his home discipline of English, and into the interdisciplinary territory of communications, usually considered the turf of social scientists or engineers. As a formal theorist preoccupied with the message of the medium form, McLuhan sought an alternative to the writing of conventional theory. His emphasis was consistently on discovery, which he valued over justification. By adopting satire, and probes, as tactics, he refused to play by the conventional rules of scholarship, critiqued academic prose styles, and tried to outdistance his critics by stressing the form over the content of his work. He used satire as an anti-environment to bring everyone to their senses; it also served to attract attention to what he was saying, and deflect scrutiny from what he was not saying which would mean buying into conventional approaches.

What about theory? Did McLuhan do satire instead of theory? In the Early and Catalyst Periods, yes and no. Yes, in the sense that when he described his work as satire, he also declared he was offering probes not theory. He insisted on the immediacy of the discovery process. For this, satire was rhetorical, "presenting the image of the world in a ludicrous effect." Later, however, in the Last Decade, he considered himself to have arrived at a theory of communications as transformation that differed significantly from conventional communications theories. McLuhan's sense of his own contribution was that he looked at the transformation of perception and experience at the intersection of culture

and technology meshed in sensory organization. The medium becomes the message because its form has a direct impact on the patterning of its audience. This was as true for McLuhan in his own work as in the media and technologies he dissected. His interest in theory grew as he developed a grasp of the core dynamic of the life of artefact forms, and the master historiographic patterns. Diagnostic probes into the inventories of effects of media forms, and media as languages was the work of the grammarian, in addition to the earlier rhetorical play. McLuhan's paradox arguably has much to do with the fact that he achieved celebrity during his rhetorical phase, but ended by wanting to communicate his formal insights, the grammars of the media.

In his search for sources of insight and corroboration McLuhan displayed a voracious appetite for texts and ideas. The discovery in the Last Decade of Lusseryan's (1963) autobiographical description of the loss of visual and discovery of acoustic space offers an exemplary case of this strategy of production. Innis was also a master of drawing corroboration from autobiographical sources. McLuhan fine tuned his insights throughout his intellectual career. This is why it is appropriate to understand McLuhan as an "abductive" theorist. He intuited his conclusions based on his study of sources from art to science, and continually modified his formulations to reflect fresh insight, and what he considered the most compelling corroborations. This is a familiar pattern, as discussed by Holton, who considers themata to represent the often unconscious orientations that scientists bring to their work. McLuhan's major themata--which have been discussed at length--represented his convictions as to the truth, and the path to its recognition.

Chapter 1 has spent many pages directing attention to McLuhan's theory of techno-cultural transformation, yet many believe that McLuhan had no theory, and some of his writings seem to affirm this idea. Thus his idea of theory must be clarified if Chapter 1's reformulation of his theories is to succeed. The source of this ambiguity lies in the three conventional senses of the term theory in play in McLuhan's work, which can be labelled rhetorical, deductive, and inductive theory. I have already outlined how this ambiguity can be resolved in the argument that McLuhan's approach to theory is abductive, and will now present the argument.

At one level, McLuhan considered any major theory to be deeply rhetorical, in the sense that theorists such as Plato, Darwin, and Newton share a strategic objective to bring about changes in or to affect their contemporaries by means of their theories (*Letters* 1973, 467;474).[54] McLuhan developed this idea of theory in his literary criticism, for example, in a 1953 essay on Wyndham Lewis' theory of communication. He noted that limited attention had been paid to this persuasive and audience-oriented aspect of theory, which recognizes that there is always an implied audience, or hidden ground, for theory. In this use of the term theory, McLuhan exhibited his awareness of classical rhetoric. Bruce Gronbeck (1981) has accurately called McLuhan "a rhetorical theorist," but this is only part of the story.

McLuhan certainly believed, particularly in the Last Decade of his career, that he had been doing theory all along, stating as has been repeated above in a letter dated the 31st of July 1974 to Marshall Fishwick: "Remember, I have the only communication theory of transformation--all the other theories are theories of transportation only" (*Letters* 1987, 505). On the surface, this is a rhetorical point since the context for his comment arose in response to criticism. However the theory McLuhan believed he has arrived at was not limited to the effect he wished to produce in his audience. The textual evidence suggests that McLuhan grew more explicitly concerned with theory in the Last Decade. Yet McLuhan was clearly not doing a certain kind of theory. After embarking on the quest for a "scientific" formulation of his ideas, a quest which resulted in the laws of media, he approached the question of theory in a manner summarized by Eric McLuhan, in language taken McLuhan's earlier writings:

> A theoretical science has to begin with knowledge and theory; empirical science, with ignorance and bias. The one is rooted in concepts, the other in percepts. The first cannot succeed unless it has an apparatus for locating and remedying flaws in reasoning, nor can the latter without a similar apparatus to detect and compensate for sensory bias. So the one proceeds by figure alone, the other by ground and figure. (*Laws of Media* 1988, 11)

For this sort of science, Eric continued, Bacon (with his four 'Idols') and Vico (with his first four axioms) had developed "a foundation for a detailed theory of communication--that is, of effects and of perceptual bias" (ibid.). This is the sort of theory that McLuhan's

"new science" announced, and it is what I interpret as his theory of mediamorphosis. As such, it is consistent with his view of his own contribution, as may be indicated in his restatement of his theory of communications and debt to Innis in the 1970s that has been cited above:

> What is called communication is, on the one hand, the conventional transportation theory, with its concern with the movement of data from point to point; on the other hand, there is the study of the transformation of individuals and groups by the very instruments which they employ in relating to each other." ("English Literature as Control Tower in Communication Study" 1974, 4)

Similarly, McLuhan criticised rivals to his theory of communications as transformation:

> Conventional communication theory is concerned with matching the old, not making the new. It is a theory that reduces all "messages" to yes-or-no choices "bytes of two-bit information", to be transmitted through "noise" from input to output of a tele-communication channel. It is a theory of communication for machines that has been applied to people by specialists. ("The Argument: Causality in the Electric World" 1974, 28)

McLuhan emphatically insisted he was not doing deductive theory, which he summarized in a paraphrase of Georg von Beckesy's[55] distinction between two approaches to a problem. The "theoretical approach" formulates the problem "in relation to what is already known, to make additions or extensions on the basis of accepted principles, and then to proceed to test these hypotheses experimentally" (*The Gutenberg Galaxy* 1962, 55). The alternative is a "mosaic approach" which, von Bekesy said, "takes each problem for itself with little reference to the field in which it lies, and seeks to discover relations and principles that hold within the circumscribed area" (ibid.). For McLuhan, this distinction is not simply between a deductive and an inductive theory, as he recognized when he wrote regarding laws of media, "in formulating these laws, I have utilized what is sometimes called the 'scientific method.' That is, I have proceeded by induction, even though in the process of induction one discovers many things that could not be merely inducted" (1975,75).

It seems more accurate then to describe McLuhan's theory as "abductive," C.S. Peirce's term for generalized and even speculative interpretation based on a diverse set of observations. The point is that his theory is grounded in experience, the senses, and perception; it is not grounded in conventional logic, nor built on abstract and self-referential concepts. McLuhan was not a trained philosopher, and this account of his theory does not pretend to turn him into one. Instead, as a humanist and generalist he had his reasons for operating in the often intuitive manner that he did. There are many possible and fruitful styles of theorizing within the human sciences. Perhaps Hamlet holds the clue here: "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy."

Further support for this characterization of McLuhan's theory as abductive comes from a cursory review of his methods. His attention to the inductive, as mentioned in the quote above, signals once again his preoccupation with experience, with the senses, and with perception. From this angle, percepts are fresh insights, while concepts are ossified extensions of old ways of thinking, or more positively perceptions that solidify after lengthy reflection and experience. He characterized his method of insightful perception as pattern recognition (*Understanding Media* 1964, viii; *Playboy* 1969). This method and style of theorizing was closely allied to what he meant by the practice of a grammarian. Because this approach is grounded in the study of language and art, literary strategies and artistic techniques make up a major but not exclusive aspect of McLuhan's theorizing. Metaphor, to take a prime instance, is fundamental to his abductive approach to pattern recognition. For McLuhan, metaphor means seeing one thing through another. He also works extensively with analogies, as James Striegel (1978) and others have observed, which involve ratios or comparative relations between things. In the Last Decade, he combined these approaches when introducing the laws of media. Where Bacon introduced a new science of experience, and Vico's innovation consisted in observing the history of language in the modifications of our own minds, and recognizing our ability to understand what we had made, McLuhan generalized these insights and applied them to communications media and all artefacts.

In all of this, a major strategy of production was the production of himself as persona:

> I find it extremely difficult to write or speak to both British and an American public in the same week. One has to "put on" the public as the garment or the "mask" which one must wear in speaking to them. In turn, this mask is the energy which one turns on when writing or speaking. ... The incoherence, the dispersed and non-focused character of the Canadian publics makes the Canadian writer or performer very uncertain about how to turn on the power that his audience potentially has." (*Letters* 1987, 449).[56]

Later in the decade, he grasped that the world further resembled the Canadian case: "For that matter there is no such thing as a reading public, although there are literally thousands of reading publics....I grew up in the '20s when it was still possible to nourish the illusion of a structured public of low-brow, middle-brow and high-brow readers" (*Letters* 1987, 482).

The desire to reach an audience animated the substance and style of McLuhan's work. But if rhetorical strategies guided his practice, his sympathies with the ancient grammarians oriented his theory, taking grammar of course in its historic sense as the study of patterns and structures, and the operations of language. It is in the marriage of rhetoric and grammar that, I conclude, McLuhan's ideas are intelligible as an unfolding formulation of a general theory of techno-cultural transformation or mediamorphosis. McLuhan's rhetoric is his practice; his grammar is the theory. His pattern watching,the activity of the grammarian, is in McLuhan's work inextricably linked with a rhetorical shock therapy, a satirical program of counter-education designed to wake up the audience, lulled to sleep by content and messages, numbed by the psychic blows of new electronic media. From this angle, McLuhan's project was diagnosis of the conditions of historical techno-culture, so as to devise a strategy of counter-curriculum. McLuhan's authorial stance can be thought of as the rhetorical practice of the encyclopedic humanist educator conjoined with the grammatical theory of a diagnostician of cultural patterns. This is the ground he proposed for a new science. In this union of rhetoric and grammar McLuhan performs a techno-cultural hermeneutics, by which I mean the art of multilevel interpretation that traces the operations of invisible forces through their effects on

historical human relationships with extensions in artefacts.[57] In performing this hermeneutics on media and technologies, McLuhan searched for the dynamics of the changes in the forms of life. His distinction was that he recognized that his objective was to arrive at an epistemology of experience, not of knowledge. Even science itself found a ground in McLuhan's theory. McLuhan's abductive theoretical achievement represents an ambitious attempt to formulate the historiographic patterns of techno-cultural transformation via media, and to specify the core dynamics or operating systems prevalent in the contemporary and previous periods.

McLuhan is intelligible on his own terms once it is understood that McLuhan's rhetoric was his practice, and his grammar was his theory. McLuhan as rhetorical theorist announced and articulated the new discoveries, his own and those of Innis and others, within the tradition subsequently called communications history. That he combined his publishing with oral practice, in lectures, interviews, broadcasts, and the conversational collaborations that produced most of his later books, reinforces this point. At the same time, he performed a diagnosis of the patterned conditions of culture, in a manner that deliberately echoed previous grammarians. Uniting grammar and rhetoric, McLuhan's theory becomes hermeneutic, in that he probed the dynamic effects of media and technologies on culture, and the consequences of major shifts in dominant media, and thus made a contribution to "the understanding of understanding" (Steiner 1992, 436).[58] The affinity with hermeneutics is reinforced by McLuhan's recognition of the significance of the achievement of George Steiner, in his hermeneutic study *After Babel* (1975) which is "based on the grammatical awareness both of metaphor as translation and of translation as transformation of sensibility." (*Laws of Media*, 123). Steiner's book was on McLuhan's Centre for Culture and Technology reading list in the last decade. I conclude that his formalisms and general speculations are unexhausted as sources of conceptual illumination and insight.

McLuhan's significance for this appraisal then lies in his contribution to a techno-cultural hermeneutics, which provides techniques, ways of perceiving and of actively inquiring into how the ground of human understanding is continuously shaped and

transformed by interactive formal and historical relationships with media and technologies, considered as extensions, interiorizations, and environments engaged in ceaseless transformation. McLuhan brought his awareness of the trivium, and his application of the arts of rhetoric and grammar to study of the media and technologies. By conceptualizing new media as new languages (one of his formulations of media) he opened up fresh horizons. He devised counter-environments, including theories and aphorisms, in order to perceive the hidden ground for culture. In this task he recognized explicitly his affinity with his predecessors Bacon, Vico, and Innis, each of whom grasped the inescapable role of prejudices, presuppositions, and biases in modifying our own minds and shaping the ground for the understanding of each period. In the Last Decade, he glimpsed the possibility that the moulding of culture through technology directly engaged the brain, as well as the mind. This insight provides one of the many points of departure in his work for his successors.

All of human techno-cultural history, art, literature, technology, science, offer clues to diagnosing the patterns of the contemporary situation. The search continues in the 1990s for an effective strategy of culture, for curricula, and for counter-environments to respond to the media environment. McLuhan invited his contemporaries to participate in parallel projects of discovery. His work and style also provoked a heated controversy that threatened to extinguish the light of his insights, as we will see in subsequent Chapters.

Chapter 2: The Paradox Of McLuhan's Traditions

"For a brief period Toronto was the intellectual centre of the world. A new theory was born there, the theory of a primacy of communications in the structuring of human cultures and the human mind."
Times Literary Supplement, June 1989

Framework

The paradox of McLuhan's traditions consists in the multiple ways in which his work has been contextualized, sometimes by the same critic. The question framing this zone is within what tradition does McLuhan's contribution now seem most intelligible? The zone or archive of possible contexts for McLuhan's contribution is vast, as illustrated by this partial list: the literary practice of a "typical Canadian humanist of his particular point in time" (Theall 1971, 201;205), twentieth-century cultural criticism (Rosenberg 1965), Anglo-American literary theory (Fekete 1977), "a particular culmination of an aesthetic theory which became, negatively, a social theory" (Williams 1974, 126), an explicit ideology (Williams 1974; Fekete 1977), civic humanism (Fekete 1982), an original Canadian discourse on communications (Thomas 1960, 18), "technological humanism" within an original Canadian meditation on technology (Kroker 1984), an inadequate theory of transformative technologies (Heim 1987, 58), and failed social theory (Theall 1971, 204-45; Czitrom 1982, 180;128).

Contenders that have gained ground more recently include: "radical American media theory" (Czitrom 1982, 147), "medium theory" (Meyrowitz 1985) and "comparative media theory" (Angus 1994). An influential rhetorical line contextualizes McLuhan as a "disciple" of Harold Innis (Carey 1967, 39; Kuhns 1972, 169), and casts McLuhan as Icarus to Innis' Daedalus (as I prefer to phrase this point), the disciple who "distorted" (Carey 1967, 15; 39; 1975, 27; Theall 1975, 16; Heyer 1988, 121) and "inverted" (Theall 1981, 233; Havelock 1986, 43; Berger 1986, 194) Innis' work. McLuhan has also been treated as a maverick or poet manqué (Theall 1971; Eisenstein 1979; Theall 1986, 83) whose characteristic feature is his break with tradition (Kuhns 1971, 171-72; 200).

Numerous anticipations of the directions the argument will take here also circulate: rhetorical theory and practice (Gronbeck 1981; Lanham 1993, 200-01), communications history and theory (Carey 1967; Czitrom 1982, 148; Heyer 1988, xvi; Jeffrey 1989, 2), communications/history (Crowley and Heyer 1991, 1), communications theory and historiography (Patterson 1990), a Toronto School of Communications (Goody and Watt 1968, 1; Theall 1984, 47; Berg 1985; Heyer 1988; de Kerckhove 1989); theory of communications as transformation (McLuhan 1974; Jeffrey 1989, 13; 23), theory of cultural transformation (Havelock 1987; Guardiani 1991), and a new hermeneutics (Theall 1975, 9; Theall 1986, 86; Carey 1981, 166).

Chapter 2 began as an attempt to answer a question posed by Donald Theall (1971) in his "speculative note" on the "influence of the Canadian university milieu on McLuhan." Once it became evident that McLuhan was atypical of Canadians and Canadian academics, Theall's question was refocused to expand the search for McLuhan's traditions beyond the Canadian university milieu. Where Chapter 1 retraced McLuhan's discovery of core themata and practice of intellectual production, while locating the traditions and sources upon which he drew in his textwork, Chapter 2 builds its case by looking at the part McLuhan played in the emergence of a new tradition. To avoid an exercise in classification, and focus instead on rendering McLuhan's contribution intelligible, this investigation has been approached in four ways. First, an historical inquiry was conducted into the formative stages of McLuhan's career as a Canadian intellectual. Second, evidence bearing on the "conjunction" of McLuhan, Innis, and Eric Havelock--the original members of the Toronto School of Communications--was examined. Third, the nascent decade for the emergence of this Toronto School tradition during the 1950s was probed in the work of McLuhan and various associates in the Ford Foundation seminar on Communications and Culture, and the journal *Explorations*. Finally, the question of McLuhan's paradoxical role in the emergence of a communications history tradition was traced through a rhetoric of inquiry analysis of the work of two major synthesizers within the tradition (Walter Ong and Elizabeth

Illustration 9

Emergence of the **Toronto School of Communications**
and communications history tradition

DATE	PHASES		KEY EVENTS
1920s	PREHISTORY	1920	Innis to Toronto (Political Economy)
		1929	Havelock to Toronto (Classics)
1930s		1936	"The Invention of Space" (F.M. Cornford)
		1937	Innis - head of his department
1940s	CONJUNCTION	1946	McLuhan to Toronto (English Literature)
	The Toronto School of Communications	1947	Havelock leaves Toronto
			Innis - Dean of Graduate Studies
		1949	McLuhan and Innis meet in "Values Seminar"
1950s	EXPLORATIONS	1950	*Empire & Communications* (Innis)
			Crucifixion of Intellectual Man (Havelock)
			Letter from McLuhan to Innis
		1951	*The Mechanical Bride* (McLuhan)
			Bias of Communication (Innis)
			Innis invites Havelock to lecture at Toronto
		1952	Innis' Death
			Changing Concepts of Time (Innis)
		1953-55	Ford Foundation seminar (McLuhan)
1960s	ANNOUNCEMENT	1962	*Gutenberg Galaxy* (McLuhan)
			"footnote to Innis"
		1963	*Preface to Plato* (Havelock)
		1964	*Understanding Media* (McLuhan)
			"hails Havelock"
			Introduction to *Bias of Communication* (McLuhan)
		1967	Carey "Communications History"
	RECOGNITION	1968	Goody and Watt "Toronto School"
1970s		1974	"Introduction" to *Empire and Communications*
		1978	Havelock and McLuhan commemorate Innis
1980s	HISTORIOGRAPHIC IDENTITY	1982	Czitrom
		1984	Theall
			Kroker
		1988	Heyer
		1989	de Kerckhove
1990s		1990	Patterson
		1991	Crowley & Heyer

Eisenstein) and three historiographers of the tradition (Daniel Czitrom, Paul Heyer, and Graeme Patterson). These four lines of investigation converge on the paradox of McLuhan's tradition. A condensed report will be presented. (See Illustration 9.)

The central conclusion here is that McLuhan's work can be best understood once situated within the tradition of communications history (Heyer 1988) which emerged out of the work of the Toronto School of Communications. This "school" had its origins in the conjunction at the University of Toronto in the late 1940s and early 1950s of Harold Innis, Marshall McLuhan, and Eric Havelock. I select the term conjunction, because each of these men was working independently on his innovative ideas while teaching at the University of Toronto; contact among them was rare; and it was only in retrospect and for historical convenience that the term school came to be applied (Goody and Watt 1968, 1). Later, Jack Goody rejected his earlier characterization (de Kerckhove 1989). No systematic exploration of the merits of this identification has yet been conducted, and Chapter 2 takes this as part of its task.

The conceptual tools presented in the Introduction come into play in this chapter, and Holton's concepts-particularly themata, the nascent moment, and the rhetoric of assertion and of appropriation/rejection--are found helpful in charting the rhetorical space of the McLuhan controversy. Such solidarity as exists in the communications history tradition is traced, as Holton recommends, through a series of close-ups on published texts, unpublished writings, interviews, and recorded meetings. Framed by the question of tradition, the zone or database traversed includes McLuhan's texts and the writings of various key associates, including Innis, Eric Havelock, Edmund Carpenter, Tom Easterbrook, and others, where these bear directly on McLuhan or on Innis.[1]

While introducing certain terms to be adopted in the discussion to follow, let me clarify several interpretive hypotheses. Innis and McLuhan did not leave a systematic communications history theory, nor did either man found a coherent "school" in the sociological sense outlined by Edward Tiriyakian (1979). The emergent tradition has many antecedents, but no direct precedents in its distinctive focus on communications

media as agencies of cultural transformation throughout human history (Czitrom 1982). Heyer (1988) valuably proposes that the communications history tradition may have an "unacknowledged" prehistory stretching back to the eighteenth century. As formulated in the work of Innis and McLuhan, it seems a distinctively twentieth-century development due to two factors: the unique historical possibility of comparison among a range of media forms, for example, electric radio and the typographic newspaper, and the unprecedented prominence of communications media in daily life. By emergent tradition I mean a recognizable set of shared themes and approaches that have arisen as the result of historical events, discoveries in research, and innovations in scholarship, and that represent a thematic area distinct from the original discipline or disciplines that made the insights possible. In *Empire and Communications* (1950), Innis was first to publish work that belongs recognizably within the communications history tradition (Heyer 1988), although he did not give it a formal name. Innis recognized the promise of both McLuhan and Havelock based on their first books published in 1951, and on his knowledge of the work that would eventually lead Havelock to write *Preface to Plato* (1963). What is less well known is that there is evidence that Innis was well aware of the significance of McLuhan's ideas for his own thinking. As a rhetorical entity (Goody and Watt 1968; Theall 1984; Heyer 1988; de Kerckhove 1989) the term Toronto School serves to emphasize the geographic conjunction of Innis, who arrived in 1920, and died in 1952, McLuhan, who arrived in 1946, and Havelock, who arrived in 1929, and departed in 1947.

The Toronto School designation also signals the broadly shared themata of the emergent tradition which concern the transformative impacts of technologies, notably communications media, upon culture and changing forms of social, political, economic, aesthetic, conceptual, and sensory organization. Influential and sometimes controversial research contributions have included macro-historical speculation on the significance of communications media and technologies for historical change; the orality and literacy thesis; the importance of the phonetic alphabet in the emergence of Western culture; the

impacts of print literacy and the printing press; and the effects of electronic media since the telegraph. Though neither systematic nor codified, the tradition argues that changes in dominant media and technologies result in revolutionary transformations in the conditions or ground for cultural life, and that these changes have been largely neglected in previous historical accounts.

Continuing the argument of Chapter 1, I contend that the tradition has been mislabelled a determinism. Once read whole and in context, the works of contributors to the tradition disclose persistent inquiries from micro, macro, and meso perspectives into the dynamics of techno-cultural change throughout history and the sources of these dynamics in human relationships with their media and technologies. For instance, Innis studies the technological implications of the rise and fall of empires (*Empire and Communications*, 1950, 187, n.110), and he also pauses to note Thoreau's percept that ads were the most interesting aspects of newspapers (ibid., 167, n.29). Havelock uses Plato's writings to illustrate his thesis of the consequences of the shift from orality to phonetic literacy, and he also later speculates ingeniously on the craft origins of Greek appropriation of the phonetic alphabet due to the need for dedications on statuary (1982b, 10 and passim). McLuhan writes sweepingly of the demise of the Gutenberg Galaxy, and he also later recognizes in the details of Lusseyran's memoir of his blindness the experiential details that support his insight into the relativity of space and its dependence on culturally predominant senses and media. These are inquiries into interactive relationships within contexts at the intersection of technology and culture. It bears repeating against this misconstrual of the communications history tradition that recognition of the power of technology does not grant it the power of absolute determination. Nor, in the case of McLuhan, does it mean that the observer approves of what he reports. In my interpretation, the tradition seems instead incontrovertibly dedicated to offering an innovative techno-cultural hermeneutics to the end of understanding a neglected and nonetheless powerful agency that shapes the grounds of understanding itself. The goal is increased autonomy, not enslavement. The term

communications history tradition highlights these shared general themata and their origins in the work of the Toronto School; it links the contributions of Innis and McLuhan, once they moved beyond the disciplines of economic history and English literature in which they had been trained; and finally it includes but is broader in scope than the more precise focus of classicist Havelock on the shift from orality to alphabetic literacy in ancient Greece.[2]

This retrospective interpretation does not intend to suggest that Innis would have approved of or agreed with the direction McLuhan's work later took. Doubtless the two would have argued strenuously, over politics and values, as they apparently did upon first meeting, according to Easterbrook. (de Kerckhove 1983b). McLuhan's refusal to sermonize beginning in the early 1950s would have clashed with Innis' stress on values. The argument here is that what they shared is more important than the implications each drew from his diagnosis. The difference between them is profound: Innis remained deeply pessimistic about what he had diagnosed, regarding it as the decline of western civilization; McLuhan recognized creative possibilities in the contemporary media environment, asking in 1957: "But why should it be doubted that radio and TV will transform prose and verse styles? Or how could anybody, in view of the history of such transformations, wish that they would cease to affect language and expression?" (*Explorations* 8, 17).

Nonetheless, as I will argue here and in the next Chapter, there is reason to consider the distinctive work of Innis and McLuhan as variations on a theme of communications as techno-cultural transformation, to emphasize the common themata, as McLuhan did, and to regard the disagreements as family quarrels, not as rival sides. The separation between the two, first proposed influentially by Carey (1967), has become received wisdom for many communications scholars, and has prevented full recognition of the emergent tradition. For example, Paul Heyer refers to this rhetorical orthodoxy when he writes: "McLuhan has claimed affiliation to the pioneering studies of media and history elaborated by Innis. This is a controversial declaration, especially in Canadian circles

where Innis and McLuhan are sometimes viewed as being diametrically opposed in intellectual spirit, politics, and in terms of the way they promulgated their work-though it is conceded that they share common subject matter." (1988, 125) This "concession" is surely the heart of the matter!

Chapter 2 supports this contention in part by reappraising and supplying missing evidence regarding the relationship between Innis and McLuhan, as Heyer recommended (1988, 125-26). Although no claim is made here to present a full reappraisal of Innis, nor to work out all the dimensions of the proposed synthesis of their contributions, ironically, in my view another reason to recommend the proposal for reunification is that it will be possible to understand more clearly the significance of Innis' pioneering work for the communications history tradition once the light of McLuhan's achievement is retrieved from the heat of these disputes, rescued from the often surprisingly shallow readings that have distorted his contribution, and once his and Innis' respective *and* collective contributions to the emergent tradition are fully acknowledged. Pressing this case, I will restate below some reasons to support the claim that it is in the conjunction, and not the disjunction, of the two that the relevance and scholarly strength of the tradition lies.

The making of McLuhan as a Canadian intellectual

Most critics agree that as a figure of intellectual history, McLuhan does not fit within the dominant pre-1960s traditions for communications and media studies, as his work explicitly rejects the models offered by North American social science which had dominated the field until then. In Chapter 1, McLuhan's own view of where he fit into an intellectual history of communications was explicated. However otherwise insightful, those, such as Czitrom (1982), who attempt to analyse McLuhan as a social scientist inevitably find fault with his work, while paradoxically appreciating the challenge he offered to orthodox approaches. Considering his training as a literary critic, within the non-specialist humanist approach of the Cambridge English School, and his inspirations in the ancient arts of the trivium and avant garde artists of the twentieth century, plus his

insistence on crossing all disciplinary borders in search of insights, it is not surprising that his work should violate the traditional canons of social science. Nor is his work intelligible within neo-Marxist, neo-Conservative, exclusively literary, speech, or philosophical frames, each a marginal rival in the 1950s and 1960s to the social sciences for preeminence in communications and media studies.[3] Given the vast archive disclosed in his work, it seems pointless to dwell upon the sources not mentioned by McLuhan, revealing more about the critic's agenda than the object of criticism. It might be observed that what MacMillan (1992) has characterized as the "unintelligible" commentary on McLuhan results from contextualizing his work within traditions that cannot assist in illuminating his contribution. However, if it be accepted that the interdiscipline of communications has for some time now participated in a convergence of themes and methods drawing from the humanities and the social sciences, a process parallel to what Geertz (1983) has referred to as "blurred genres," then McLuhan's contribution to an emergent tradition within the interdisciplinary human sciences as more than simply a maverick becomes possible.

The first task is to summarize key aspects of McLuhan's development as an intellectual. Wherever relevant, some comparative comment will be made about Innis. This tactic permits a statement on the relationships between McLuhan as individual talent and the contexts--national, biographical, institutional, and intellectual--in which and against which his contribution unfolds. McLuhan's training at Manitoba and in the Cambridge English School, his early career in the U.S. Midwest, and national origins as an outsider from the Canadian prairies without wealth or family connections, gave him unusual insight into the operations of the particular cultural environments of the U.S. and the U.K.. His conversion to Roman Catholicism and position at St. Michael's College at the University of Toronto further sharpened his appreciation of the outsider's perspective. His Roman Catholicism, which he called "catholic humanism" in one early and important essay (McLuhan 1954; Kroker 1984), anchored his mature intellectual production not in religious dogma but in a faith in the intelligibility of all things. In a

letter to Barbara Ward he stated that his religion reinforced his attunement to the process of transformation (*Letters* 1987, 468). Tracing McLuhan's particular approach to media and popular culture, and how it draws upon and then departs radically from that of his teacher, F.R. Leavis, also sheds light on his intellectual training and development of an emergent tradition.

Most serious commentators on McLuhan have recognized some link between his work and that of Innis. Czitrom echoes others in his argument that "the most radical and elaborate American media theory" can be found in the work of Innis and McLuhan, who "represent two wings of a body of speculation that locates the formal characteristics of communications media as the prime mover behind the historical process, social organizations, and changing sensory awareness" (1982, 147). Czitrom accounts for this breakthrough on grounds of national tradition, or perhaps its absence: "As Canadians, both men were less constrained by the behavioral tradition of communication studies dominant in the United States" (ibid.). Theall (1971; 1975), who downplayed the connection between the two men, had argued earlier that Innis and McLuhan shared certain thematic interests because they emerged within a similar Canadian intellectual milieu, each making his mature academic contribution while based at the University of Toronto. "One of the prime characteristics of that milieu," Theall observed, " was a kind of marginality to the mainstream of North American influence today--the United States" (1981, 225). Theall (1975, 7) shares the view that there exists a characteristic Canadian interest in communication and culture, and distinctive emphases in communication theory (Thomas 1960; Kroker 1984). More than their American or British counterparts, Theall argued further, Innis and McLuhan raised "hermeneutic" questions about communication (1975, 9;13-14; 1986, 79), "chiefly owing to the Canadian perspective being conditioned by its marginal cultural position, a situation which led to attempts to 'understand' rather than to 'control' communications institutions" (1975, 13).[4]

Havelock locates a "simple answer" to explain Innis' interest in communications within the subject matter of Innis' early works on the fur trade and cod fisheries: Canada

itself, "which owed its existence to the exploitation, by varying techniques, of the means of physical communication" (1982, 36). For Havelock, the rural community of Innis' upbringing was a residually oral society, fundamentally pre-literate, far removed from the "highly literate cultures" in which European intellectuals are bred (1982, 37). This theme of Canada as a primitive sort of place, on the margins of civilization and intellectual life, may hold some truth, but it is suspiciously prominent in British assessments, redolent of the days of empire, and its aftermath, intellectual snobbery. Havelock, like McLuhan a graduate of Cambridge, applies the same logic to his own work, noting that his lengthy experience teaching in Canada (1926-1947) "brought [him] into touch with certain rural realities which in other circumstances would have escaped [his] attention" (1982, 42). In the case of McLuhan, many U.S. critics exhibited surprise at the novelty of Canada producing such an "intellectual comet"; others dismissed McLuhan as a marginal man from a marginal country and thus how he received the attention he did--or the phenomenon of McLuhanism--seemed as worthy of comment as what he had to say. Carey offered his opinion that Innis' communications scholarship was ignored in the U.S. because "in the United States a monopoly of knowledge has grown up that has successfully resisted the penetration of Canadian scholarship generally and Canadian communication theory specifically" (1975, 27).

Arthur Kroker also links the intellectual contributions of Innis and McLuhan through their shared national tradition: "Canada's principal contribution to North American thought consists of a highly original, comprehensive, and eloquent discourse on technology (1984, 7)." He elaborates:

> The Canadian discourse is neither the American way nor the European way, but an oppositional culture trapped midway between economy and history....The essence of the Canadian intellectual condition is this: it is our fate by virtue of historical circumstance and geographical accident to be forever marginal to the 'present-mindedness' of American culture (a society which specializing as it does in the public ethic of 'instrumental activism' does not enjoy the recriminations of historical remembrance); and to be incapable of being more than ambivalent on the cultural legacy of our European past. At work in the Canadian mind is, in fact, a great

> and dynamic polarity between technology and culture, between economy and landscape...The Canadian mind may be one of the main sites in modern times for working-out the meaning of technological experience. Indeed, a general fascination with the question of technology extends like a brilliant arc across the Canadian cultural imagination, from cinema and music to literature and philosophy. (1984, 7-8)

The contributions of Innis and McLuhan figure within this national intellectual context. If the ground for their respective contributions to the emergent tradition of communications history resides in the national cultural imagination and experience, then specifying McLuhan's contribution to the conjunction requires examination of the rhetorical and sociological communities and the milieu in which he was located.

McLuhan preferred to focus attention on his ideas, and declined to discuss his personal background. By cooperating with the media to promote his ideas, yet refusing to speak candidly about himself and his motives, he gained a reputation for secrecy (Czitrom 1982, 166; Heyer 1988, 126). In addition, because McLuhan refused to take a value position on what he observed--instead strategically asserting that "the best satire is non-moral"--yet paradoxically was known to be a Roman Catholic convert, dark speculation surfaced as to his personal agenda. It is helpful then to revisit the question of the making of McLuhan as a Canadian intellectual in terms of training and biographical background with more than biographical consequence.

By birth, but not by character, McLuhan was Canadian. Born in Edmonton, Alberta, McLuhan grew up in Winnipeg, where he lived until age 23, when he graduated with a master's degree in English from the University of Manitoba. Loving but ineffectual in business, his father became the primary care giver, when mother Elsie left home to pursue a career performing on stage as an elocutionist and recital artist. Impressed by this early exposure to the practice of rhetoric as theatrical monologue, his letters show that McLuhan learned early the importance of audiences, and the nuances of performance, taste, and reception. As a Canadian, it was not possible to take one's own cultural environment for granted, and McLuhan was sensitive to the differences distinguishing Canada, the United States, and Britain (*Letters* 1987, 49). As revealed in an interview by

de Kerckhove with Maurice McLuhan, mother Elsie, a participant in the cultural life of colonial Canada and the United States, expected great things from Marshall. She was greatly upset by his decision to convert to Roman Catholicism, fearing that his worldly prospects were at an end (*Letters* 1987, 72). McLuhan's early interests included practical pursuits. He built sailboats, crystal radio sets and later during two years at a technical high school, a vacuum tube radio with which he tuned in distant signals. Communications as a means of access to the world is a formative element in the making of any Canadian intellectual, particularly one brought up far from metropolitan centres, and especially for McLuhan, with a beloved and absent parent off performing for audiences on a wider stage.

McLuhan was a self-created man who inherited no wealth. As with other bright young men of his generation, intellectual life represented one route out of poverty and obscurity. In maturity, McLuhan's sense of his own and his chosen religion's superiority gave him an unmistakeable air of the outsider convinced of his insight, his ability to recognize what was true, what merited attention, confidently maintaining his opinions and chosen themata against all opponents. His faith anchored his mature identity and underpinned his conviction of the intelligibility of all phenomena. As an intellectual he was aggressive rather than deferential. His temperament was active rather than contemplative, restless rather than philosophical, relentlessly iconoclastic rather than piously dogmatic. The global celebrity he attracted was unprecedented for a man of letters who made his career in Canada. Paradoxically, at the apogee of his fame in the 1960s, he was also described accurately as, "married, the father of six children (four daughters, two sons), [who] lives in a modest house in a prosaic section of a dull city: Toronto" (Stearn 1967, xiv). Although later identified with his subject media and popular culture, McLuhan insisted that he was the last on his block to get a television set. He enjoyed Westerns and other shows, but preferred lively conversation and the scanning of books. In his prime, he is reported to have turned first to page sixty-nine to determine whether the book was worth reading. His many lifelong friends and colleagues portray

him as thoughtful, generous, and unpretentious, with a zest for life, ideas and perpetual debate, frequently verging on soliloquy. His many detractors found him mystifying, rude, a promoter, a charlatan, and quite possibly mad. There is evidence that his medical problems of the last decade impaired the flexibility of his mercurial mind (Marchand 1989; Carpenter 1992); however, as demonstrated in Chapter 1, there is copious evidence that he continued his relentless and erudite quest to understand media and cultural transformation, and developed and deepened his insights until he was silenced by a stroke in the final year of his life.

Canada grew from colony to nation during McLuhan's youth. His father, like Innis, enlisted for World War One, where Innis saw service overseas as a member of the signal core. Innis' early reputation rests in part on his original contribution to revisioning the formation of Canada, not as a story of American frontiers or British politics, but as a history of circulation between centres and margins, traced through the currents of staple goods, such as furs, wheat, and codfish, along an east west axis in the orbit of the European empires and markets. What was unusual about the early Innis was that he told this story not merely as a footnote to previous texts but from within the experience of the margins, taking canoe trips, for instance, to understand the voyageur experience. Innis was the leading social scientist of his generation of Canadian intellectuals (Clark 1981, 32; Berger 1986, 195), among the first to think through historical problems from the ground of the Canadian imagination and experience. He looked to Europe for scholarship, and not to the University of Chicago, the hotbed of American sociology, where he had been trained (Clark 1981, 32). Innis attained wide influence in his battle "to raise the standard of social science scholarship in the country" (ibid.). He brought passion to his scholarship, and although holding a pragmatic suspicion of ungrounded theory, positioned his later historical writing in relation to the tradition of macro historical theories advanced by authors including Mead, Marx, Mosca, Pareto, Toynbee, Spengler, Kroeber, Veblen, and Sorokin (*Empire and Communications* 1950, preface).

McLuhan grew up an Anglophile, an attitude he maintained until he arrived in England and discovered another focus. He explained to his mother:

> You see my "religion-hunting" began with a rather priggish "culture-hunting." I simply couldn't believe that men had to live in the mean mechanical joyless rootless fashion that I saw in Winnipeg. And when I began to read English Literature I knew that it was quite unnecessary for them so to live. ...All my Anglo-mania was really a recognition of things missing from our lives which I felt to be indispensable (*Letters* 1987, 73).

Solemn, gregarious, thoughtful, his early heroes were nineteenth century historian, Thomas Macaulay, and social critic and novelist, G.K. Chesterton, who converted to Roman Catholicism in 1922. As a Canadian, unencumbered by the British class rigidity that marked a man for life by his accent, if one worked hard at acquiring the best of what the world had to offer, thinking for oneself, and always assessing the immediate situation, it seemed possible to figure out, in a hopeful and pragmatic new world sense quite foreign to twentieth-century Europe, how things worked. McLuhan's intention to contribute to making the world intelligible is consistent with his earliest intellectual pursuits. He enrolled in engineering at the University of Manitoba, and in the second year shifted into English literature, a curriculum which demanded intensive study of history. He excelled, and frequently dominated his seminars.

As a bright colonial, McLuhan chose Cambridge, and was supported initially by a scholarship from the Imperial Order of the Daughters of the Empire. Once there, from a solid nineteenth century educational base at Manitoba, he started a second B.A., absorbing at first hand the foremost literary critical training of the day, taking courses from renowned professors including I.A. Richards, F.R. Leavis, Arthur Quiller-Couch, and Mansfield Forbes, and beginning his lifelong tutelage in the work of Joyce, Lewis, Pound, Yeats, and Eliot. The Cambridge English School trained the "non-specialist intelligence" in a "literary-critical discipline," and not researchers in a quantitative or empirical sense (Leavis 1948, 33-86). His early interest in popular culture was sparked by this period at Cambridge, as he absorbed it under the inspiration of *Culture and Environment* (1933) by F.R. Leavis and Denys Thompson, and a pioneering study of

literature, Q.D. Leavis' *Fiction and the Reading Public* (1932). Richards' technique of testing reader response to unsigned poems, conducted in classes, including one attended by McLuhan and previously reported in *Practical Criticism* (1929), directed attention to the sense actual readers made of the poetry they read. Wyndham Lewis' trilogy, *The Human Age*, and book, *Doom of Youth*, allowed him to glimpse how literary and aesthetic analysis could be brought to bear on the works of popular culture. All these works took a highly negative position on popular culture and criticized and ridiculed the tastes of both those lacking aesthetic appreciation and those whose work held appeal for the masses. Interested in advertising as an extension of his early rhetorical interests, McLuhan also collected ads, a practice he continued throughout his career.

What distinguished McLuhan's work from that of his influences was his open mind. He took Joyce and the Symbolists seriously as allies in his quest to make popular cultural life intelligible. He analysed media and popular cultural forms, including advertising and comic books, applying aesthetic strategies and critical awareness of artistic techniques.[5] In 1971, he wrote to Etienne Gilson: " My interest in Symbolist poetry from Poe to Valery inspired my interest in the study of media. Symbolism starts with effects and goes sleuthing after causes" (*Letters*, 421). Media represented a new "literature," and the opportunity to extend the tactics of education to the critical inspection of the cultural environment. After his encounter with Innis' work, new media and their transformative powers became the subject around which McLuhan's mature work was built. It is possible to argue that the limitations McLuhan perceived in English as a discipline within the academy from the beginning (e.g., *Letters* 1987, 51) prompted his eventual turn to fresh ways of exercising the critical function, and of understanding the forces that shape cultural sensibilities. His critical training permitted him to find in the work of the artists he admired clues to retracing the labyrinth of creative cognition. This offered a route to a new humanist contribution to an interdisciplinary approach to understanding the contemporary world. It also offered a new direction for education in the late twentieth-century environment, as McLuhan makes clear in his letter to Innis of 1951

(*Letters*, 222), in which he proposes a school of communications, although he was not able to realize this ambition.

Two defining moments mark McLuhan's mature identity. First was his decision to become a professor, although he was always ambivalent about the academy unsure whether he might make his mark in some other way, possibly journalism. Both professions seem linked through the act of communication and the need to make the world intelligible. In 1944, he wrote in response to a query from Wyndham Lewis:[6]

> As for my aims and projects. Sensing, these past years, a kind of indeterminacy in my life and milieu, yet having a strong need to work towards making more and more of my studies, and the life around me, intelligible,-of raising the particulars to the level of intelligibility, I have cultivated a sort of "negative capability", trying to achieve a readiness to act in some unforeseeable way when that way should define itself. That is the present position. There is some sort of work in me. I shall impinge in some sort of way, but whether academic or not I am unable to see. But what complete isolation governs the maturing of any thought in this country! (*Letters*, 147)

He also expressed his ambivalence to Ezra Pound[7] in 1951. After summarizing his views on the problems facing contemporary men of ideas, he writes of his fellow educators:

> Now, the teachers. They are people of lowly origins and no cultural background or tradition. They take a dim view of themselves as persons out of touch with the extrovert drives of their own world. They have no tradition which would enable them to be critics of their own world. They have a temperament which prefers a quiet, simple life, but no insights into anything at all. They distrust any of their number who has ideas. (*Letters*, 227)

The second defining moment was the decision to become a Roman Catholic, taken in 1937. McLuhan was brought up with a prairie Protestant (Baptist) independence of mind, and his Roman Catholicism grew out of this background. His frequent advice to his fellow Catholics as to how to overcome their "mental squint" and his observations on what Catholics had overlooked in artists they may have neglected for dogmatic reasons, indicate his strong sense of himself as an outsider on the inside. In his 1947 introduction to Kenner's *Paradox in Chesterton*, he discusses what Catholics have missed in Vico,

and how the teachings of art and philosophy in the Catholic colleges are "reflections of a mechanized world"(1947, xvii-xviii). Chesterton was a major influence, and McLuhan read Chesterton on Aquinas in 1934 (*Letters*, 39). Yet he did not stop there, writing to two of his close Jesuit colleagues, in 1944:

> Increasingly, I feel that Catholics must master C.G. Jung. The little self-conscious (unearned) area in which we live today has nothing to do with the problem of our faith. Modern anthropology and psychology are more important for the Church than St. Thomas today. (*Letters*, 166)

Despite his sense of intellectual kinship with Aquinas, evident in his analogical reasoning and Aristotelian emphasis on the senses as rational, he said: "I don't have a background in scholastic thought, never having been raised in any Catholic institution. Indeed, I have been bitterly reproached by my Catholic confreres for my lack of scholastic terminology and concepts" (*Letters*, 261). His Catholicism was of the intellectual variety, a point emphasized in his account of discovering the work of Maritain while at Cambridge (*Letters* 1987, 521) simultaneously with his discoveries of Richards, Eliot, Pound, Joyce, and Lewis. "All of these people", he writes, "seem to relate to each other in many different ways, and each seems to enrich the other" (ibid.). To this list McLuhan then adds contemporary painters, ballet, and film theorist, Sergei Eisenstein. His Thomist orientation deepened early in his career during his time teaching in St. Louis, where a revival of interest in Thomist thought was underway (Ong 1988). His friend, Bernard Muller-Thym, taught him a great deal, especially about mediaeval philosophy, and as a management consultant with a doctorate in philosophy also represented the ability of the Catholic intellectual to be a practical man of the world, outside the priesthood and cloistered academy. Similarly, McLuhan was impressed by his friend Peter Drucker's ability to span both worlds. However, McLuhan did not accept uncritically either his new religion or the academy.

It was his Cambridge training modified by his religion that provided the guiding orientation for his intellectual production. The internal and textual conversation in which he engaged to produce his textwork took place with fellow Catholics and non-Catholics

alike, but also with the modernist artists about whom he taught, and with some of whom he corresponded. "The genuine critical discoveries...made by T.S. Eliot and F.R. Leavis, about how to train, simultaneously, aesthetic and moral perceptions in acts of unified awareness and judgment: these major discoveries are ignored by Catholic educators" (1947, xviii). His most important statement on the link between his faith and his vocation as educator and intellectual is "Catholic Humanism and Modern Letters" (1954).[8] By this point he has embraced the insights of Harold Innis, and in this essay he synthesizes the relevance of his central theme of communications history and its transformative impacts:

> He who would discuss humanism and literature today must know something about the history of the media of human communication....Printing was as savage a blow to a long established culture as radio, movies, and TV have been to the culture based on the printed book. Today, therefore, when writing, speech, and gesture have all been mechanized, the literary humanist can get his bearings only by going back to pre-literate societies. If we are to defend a civilization based on the written and printed word against the present threat from TV, for example, we must know what we are defending. ("Catholic Humanism & Modern Letters" 1954, 56)

McLuhan adds the key discovery from his work of the 1940s, awareness of the power of forms to have effects, and cites Innis as he draws out the crucial clue:

> any change in the form or channels of communication, be it writing, roads, carts, ships, stone, papyrus, clay, or parchment, any change whatever has revolutionary social and political consequences. Related to this fact is another one, that any channel of communication has a distorting effect on habits of attention; it builds up a distinct form of culture....The printed page was the cultural matrix of our abstract technological world today, just as the printing press was the ancestor of assembly-line production. (ibid., 57-58).

Four interpretive hypotheses summarize these cardinal aspects of McLuhan's mature identity. He was a superior outsider, who chose membership among outsiders with an in, expressing an ambivalent solidarity with his fellow Roman Catholic intellectuals, and after his conversion teaching only in Roman Catholic institutions; a self-created man

who when young expanded his vocabulary by teaching himself a word a day, later learning Latin, for whom intellectual life offered a route to worldly influence, eventually a fine home, and wealth enough to support his large family; a pattern watcher who focused on recognition of form, structure, and technique, not simply the content of the words on the page; and a lifelong educator, a rhetor reaching his audience in the academy, and later promoting his ideas to a wider audience through the media as classroom and popular speaking engagements. He returned to North America with his Cambridge Ph.D., confirmed as a superior outsider and ready to invent himself as a public intellectual figure. A superior outsider within his own marginal national context, McLuhan was fully aware of his position, as is evident in his 1951 letter to Pound.

> I am an intellectual thug who has been slowly accumulating a private arsenal with every intention of using it. In a mindless age every insight takes on the character of a lethal weapon. Every man of good will is the enemy of society. Lewis saw that years ago. His "America and Cosmic Man" was an H bomb let off in the desert. Impact nil. We resent or ignore such intellectual bombs....I should prefer to de-fuse this gigantic human bomb by starting a dialogue somewhere on the side-lines to distract the trigger-men, or to needle the *somnambulists. (Letters*, 227)

The leading Canadian intellectuals of McLuhan's generation were, like Innis before them, marked by an originality of mind and a foreign graduate education: Northrop Frye (who studied for his master's degree at Oxford), and the expatriates John Kenneth Galbraith and Erving Goffman. The four rejected conventional wisdom and specialism, and reached audiences beyond the academy. McLuhan took the view that Canada was an ideal place in which to carry on his work. Elsewhere his celebrity might have distracted, but in Toronto no one took it very seriously. The marginal position of the country seemed a strength, as Innis had observed, because Canada could cast an outsider's critical eye on Britain and the U.S. in an attitude of wariness mixed with empathy. Gerald Stearn captures the context for the Canadian intellectual of McLuhan's day: "Canadian culture is, at its best, a very fragile thing, shaped by English patronization and American indifference" (1969, 18). Kroker articulates the response of the best and the brightest to

this condition, in filmmaker Jean-Claude Labrecque's description of a national intellectual imperative: "we must be original or disappear"--the Canadian fate is simply this: "create or perish" (1984, 129).

Another aspect of the national tradition is the distinctive way in which the work of Innis and McLuhan figures within the context of Canadian criticism. The text base for a rhetoric of inquiry analysis on this point is found in a collection entitled *Contexts of Canadian Criticism* (1971), edited and introduced by Eli Mandel, within a general series on "Patterns of Literary Criticism", edited by McLuhan, R.J. Schoeck, and Ernest Sirluck. The tone of the collection favours a broad approach, on unusual grounds articulated by Mandel in his preface: "[I]t seems important to expand the notion of literary criticism in Canada to include the work of historians and philosophers" (1971, vii). Mandel reasons:

> [S]ome of the best writing in the country is historical and philosophical. Moreover, Canadian literary criticism consistently seeks its organizing principles not only in theories of literature but in historical and social contexts. It may be that Canadian concern with historiography, social structure, and aesthetics can be viewed best as an expression of an almost paranoic self-consciousness or simply as part of an attempt to understand the importance of communication theories in a demanding physical setting....any collection of critical essays that aspires to represent Canadian critical writing fairly and accurately will obviously present selections concerned not only with traditional comments on patterns of literary development but with the history and form of Canadian society and with problems in poetic theory as well. (ibid.)

Thus Mandel strategically diverts attention from criticism to the field around it on the assumption that Canadian criticism is only discovered in its fields or contexts (ibid., 3). The major impulse of Canadian literary criticism, Mandel continues, is to create an "anti-environment," a concept drawn from McLuhan, "that will enable us to perceive the environment--the art, poetry, and literature of an invisible country." This can be done by framing the question of patterns of literary and critical development in terms of reflections upon historiography, as well as social and cultural history (ibid., 4). Thus the

section on social and historical contexts includes essays by Innis and George Grant; Northrop Frye and McLuhan are included in the section on theoretical context; and patterns of criticism are traced through Frye and others. Mandel adopts McLuhan's point that the experience of environment, far from being a deterministic factor, can be a human creation (ibid., 9). Text for this assertion is found in two fundamental propositions from McLuhan: "any technology gradually creates a totally new human environment" and "as our proliferating technologies have created a whole series of new environments, men have become aware of the arts as anti-environments or counter-environments that provide us with the means of perceiving the environment itself." Innis is credited with first exploring the idea that Canada exists not as a function of its physical environment but in the technologies that create a new human order (ibid., 9). McLuhan, (along with Frye), is hailed as a Canadian critic whose work "radically alters the context within which we view ourselves, our society, and our literature...." (ibid., 17). This point resembles T.S. Eliot's (1919) notion of tradition--the idea that an original contribution alters the existing order. For Mandel, the paradox that emerges consists in the fact that the work of these writers brilliantly exemplifies Canadian criticism, yet these writers turn away from the immediate concrete tasks of present day criticism of texts to the construction of a theoretical ground, where they work at integrating disparate materials (ibid.). Mandel argues that McLuhan, who is represented by the section on "The Medium is the Message" from *Understanding Media*, accomplishes this theoretical integration by attending to technology, environment, and art (ibid., 18). The unity among these diverse formalists and their theories of critical contexts is paradoxically that "the contexts they provide are contexts for further contexts" (ibid.).

It has been said that Canada has too much geography and too little history. There seems an echo of this national condition in Mandel's critical appraisal from the early 1970s: too much form, too little content; too much ground, too little figure. Kroker's reminder then comes into play: the imperative of Canadian culture is to create or perish. Out of this imperative, and Mandel's insight into a vastly conceived Canadian criticism

that includes literary, historical, and theoretical meditation, stands revealed the paradoxical ground, at once humanist and technological, out of which and against which the work of Innis and McLuhan emerges. In words that could also apply to his own work, McLuhan, in a 1965 letter to Claude Bissell, places Innis within a national context:

> Canada as anti-environment to the USA is able to perceive many of the ground rules and operational effects of the American environment that are quite imperceptible to the USA. If the USA has built its distant-early-warning system in Canada for military use, let us observe that we can be of far greater use to the USA as an early-warning system in the social and political spheres generally. Thus it is no accident that Canada produced Harold Innis with his uniquely structuring perception of large environments. He was a product of the Canadian anti-environment. The function of the anti-environment, whether in the arts or sciences or society, is that of perception and control. (*Letters*, 319)

The conjunction of Innis and McLuhan

Discussion of the relationship between the work of Innis and McLuhan, which is fundamental to the Toronto School of Communications, is resumed from Chapter 1, with a sociological dimension now added to the rhetorical and intellectual dimensions, which are probed selectively.[9] The focus remains on McLuhan and the rhetoric of his appropriation of Innis, framed by the question of the making of McLuhan as a Canadian intellectual, and his affiliations with those whose work he considered corroborative of his own developing insights. Chapter 1 chronicled McLuhan's appropriation of Innis, and established certain convergences and divergences from within McLuhan's text. The discussion in this Chapter continuously circles back to the conjunction of Innis and McLuhan, not because either man's work is reducible to this conjunction, but rather because in retrospect I conclude that it is in terms of the shared themata of communications as techno-cultural transformation that the work of McLuhan and the later Innis seems most intelligible. The premise behind this tactic of "circling back" is rhetorical and historiographic: it was only after McLuhan's fame that Innis' work on

communications attracted wider attention, and that the shared themes became a tradition which took on discernible shape within the intellectual landscape (Czitrom 1982, 148).

On the vexed subject of the continuity or discontinuity between the "early" and "later" Innis, I agree with Heyer's (1988, 112) assessment that Innis' later interest in communications, which appears to begin around 1940, and his methodology are prefigured in his earlier work. William Christians (1980, ix-xi) also provides evidence for a continuity in the work of Innis after examining his "idea file", but unfortunately goes on to overstate his case. For one thing, the idea file itself, which contains research nuggets for the development of Innis' communications history work, begins with entries that Christians dates back to 1944. More important, Christians (ibid.) echoes conventional disdain in regarding Innis' communications studies as somehow unimportant: "...the studies in communications were to a considerable degree a device for getting at more important questions" (ibid., xi). The problem with this view is obviously that Innis' innovations derive precisely from his bold demonstration of the significance of a specific if broadly conceived factor--namely communications, technologies and media--for understanding historical change, not from the fact that, just as others had done for centuries, he was concerned with the "political and cultural issues" underlying the rise and fall of political organizations, cultures and empires, as Christians suggests (ibid.). Here I think McLuhan was correct in calling attention to the shift in emphasis of the later Innis, and in tracing this shift back to his encounter with a complex staple--namely pulp and paper--and a related institution--namely the press--an encounter that led to a deepening of his dissatisfaction as a historian with the scope of his own discipline of economics. It is furthermore possible to make the strong case that the political and cultural issues that preoccupied Innis, in his later role as a communications historiographer, can be best addressed from within a communications history tradition that incorporates the contributions of Innis and McLuhan, and not by ignoring this possibility as Christians appears to do.

McLuhan's celebrity outside Canada resulting from the critical attention paid to *The Gutenberg Galaxy* and popular success of *Understanding Media* brought attention to Innis' neglected works on communications, which partly explains why a literature professor should be invited to write the introductions to the reissued works of an economic historian (*Bias of Communication* 1964; *Empire and Communications* 1972). Another reason is that McLuhan was one of the few who claimed a coherent grasp of what Innis was up to in his last works. It was in McLuhan's reading, the identification of his own work with that of Innis, and the criticism these moves eventually attracted, that the tradition as a rhetorical entity and its themata emerged within communications study. McLuhan advanced his reading of Innis in articles and reviews published beginning in the 1950s (e.g., *Review of Changing Concepts of Time* 1953; *The Later Innis* 1953), but it was in the introductions, where McLuhan called *The Gutenberg Galaxy* a footnote to the work of Innis, taken together with his appropriation of Innis' work in *The Gutenberg Galaxy* and *Understanding Media*, that rhetorically announced a new approach to the study of history and communications.

I support Graeme Patterson's (1990) interpretive argument that, as individuals, Innis and McLuhan brought their respective backgrounds in the social sciences and humanities to make an original Canadian contribution to the emergence of a twentieth-century tradition,[10] positioned at the intersection of communications and history. Despite what I consider to be his distortion of McLuhan's contribution, the subject for Chapter 3, Carey was the first after McLuhan to recognize this achievement:

> Innis and McLuhan, alone among students of human society, make the history of the mass media central to the history of civilization at large. Both see the media not merely as technical appurtenances to society but as crucial determinants of the social fabric. For them, the history of the mass media is not just another avenue of historical research; rather it is another way of writing the history of Western civilization. Innis and McLuhan do not so much describe history as present a theory of history, or, less grandiloquently, a theory of social change in the west. It is a theory which anchors social change in the transformations in the media of

> communication on which this civilization has been progressively dependent. (1967, 5-6)

In Chapter 1, the nascent moment for McLuhan's mature work was located in 1951 when he read Innis's work on communications, after learning (probably from Easterbrook) that *The Mechanical Bride* had been placed on Innis' course reading list (*Bias of Communication*, ix). Innis also cited *The Mechanical Bride* in a revised paper, "Adult Education and Universities", published in *Bias of Communication* (1951, n.213). As argued in Chapter 1, exposure to Innis's later work allowed McLuhan to identify his subject as "the new media of communication and their power of metamorphosis," a topic he had previously discovered through his literary studies (*Letters* 1987, 245).[11] Several published and unpublished quotations will illustrate McLuhan's appraisal of Innis' achievement, and how over the course of his career McLuhan read Innis, past the incomprehension of his colleagues, in the direction of his own themes. In the process, McLuhan expanded the scope of the tradition by conjoining his own studies in literature and culture to his extensions of the themes raised by Innis.

> H.A. Innis has been the great pioneer in opening up the study of the economic and social consequences of the various media of communication; so that today any student of letters is necessarily indebted to him for insight into changing attitudes to time and space which result from shifting media. In particular his studies of the newspaper as a major branch of the technology of print are relevant to the study of modern literature. Beginning as an economic historian, Innis was gradually impelled to consider not just the external trade-routes of the world but also the great trade-routes of the mind. He became aware that the modern world, having solved the problem of commodities, had turned its technology to the packaging of information and ideas. (*Joyce, Mallarmé and the* Press, 42)

McLuhan's rhetoric of appropriation consistently recognizes and reformulates the significance of Innis' achievement. Later he observed: "Innis was the first person to hit upon the *process* of change implicit in the *forms* of media technology" (*The Gutenberg Galaxy* 1962, 65). McLuhan writes that to Innis, who is "above all a recognizer of patterns," can be applied Bertrand Russell's comment on Einstein: the ideas can be

expressed, but are difficult and demand "a change in our imaginative picture of the world" (*Bias of Communication*, vii). Still later, McLuhan reflected privately in a 1972 letter to Father Laurence Shook that, "Until the work of Harold Innis I have been unable to discover any epistemology of experience as opposed to epistemology of knowledge. I can find no doctrine of how and why men are changed in their inner natures by their own technologies" (1972; cited in Patterson 1990, 38). He immediately recognized the significance of Innis' contribution to a theory of communications as techno-cultural transformation, and regarded him as an ally. McLuhan observed in 1954:

> The study of communication theory and practice has recently been fostered by numerous separate approaches to the common problems of our present world. Yet there has been no spectacular sponsor of such study, no doctrinaire approach to distort flexibility and sensitive awareness of its complexity. But such study seems inevitably to hold the key to the unification of the proliferating specialisms of modern knowledge. In this study, the physicist can profitably confer with the student of poetry or philosophy. And the advertising executive can converse intelligibly with the anthropologist or linguist. In moving towards this harmonizing of the arts and sciences, the later Innis appears as one of the indisputable pioneers whose work will for long remain not only a source of standard reference but a source of ever renewed insight. (*The Later Innis* 1954, 393-94)

Few associates of Innis held similar views. A note by Tom Easterbrook reflecting on the "voyage of discovery" on which he embarked as a result of having to take over teaching of his colleague Innis' economic history course on "empire and communications" at the University of Toronto, shortly before Innis' death, eulogises Innis' pioneering status from an insider's perspective:

> In his explorations he revealed a richness of insights into historical process unmatched in the scholarship of his day or ours. To challenge so strenuously conventional, orthodox, widely accepted concepts and paradigms, to move beyond long established frontiers of scholarly investigations takes courage and this he had in abundance. He paid the price for a time in loss of contact with many who knew him best, and it is only in the past few years, that a growing recognition of the extent and depth of his findings has become apparent. His international reputation as a creative scholar of the first rank is now beyond dispute, and I have no

> doubt that with the recent swing of interest to the larger themes he was exploring, this reputation will steadily increase. Those who neglect his work and his discoveries will do so at their peril.[12]

In a later interview (de Kerckhove 1983), Easterbrook was less optimistic and remarked on what he perceived to be the subsequent neglect of Innis' work on communications among U.S. political economists, and appropriation without credit by others. Easterbrook's views are of historical significance for this account, because he provides a link between Innis and McLuhan, whom he had introduced in the late 1940s. Alone among their colleagues, Easterbrook queried each man about the substance of his mature work, up to the time of their respective deaths. Easterbrook, who is mentioned by Innis in the preface to *Empire and Communications*, became chairman of the Department of Political Economy (1961-1970), where Innis had served as head. A boyhood friend of McLuhan's in Winnipeg, the two worked their way across the Atlantic on a cattle boat, travelled for several months in England, and attended the University of Manitoba together. Easterbrook was also one of five faculty members in McLuhan's Seminar on Communications and Culture (1953-1955), for a time an associate editor of Explorations, and later a member of the executive committee for McLuhan's Centre for Culture and Technology.

While preparing the introduction to *Empire and Communications*, McLuhan wrote privately about another aspect of the kinship he perceived between his and Innis' work, noting that Innis' study of media "baffled and alienated his colleagues and his readers." He adds in a 1971 letter to Gilson: "In my own attempts at understanding media I have discovered a uniform distaste in even my friendly readers and critics for the attempt to discover causality of any kind in the environmental action of media on man or society" (*Letters* 1987, 421). Continuing in another letter, this time to Bissell in 1971, he writes of the rhetoric of rejection encountered by both:

> Innis also spent much of his life trying to draw attention to the psychic and social consequences of technologies. It did not occur to him that our philosophy systematically excluded techne from its meditations....The

> entire academic establishment will fight [this recognition] for centuries to come simply because it has a stake in the old ignorance.(*Letters*, 429)

Developing his own themes in the introduction to *Empire and Communications*, McLuhan calls Innis an artist and satirist of history, who uses the figure-ground or Symbolist tactic of compression in his later prose, who concentrates on effects not causes, who is compelled through the range of his erudition to recognize the paradoxical and not reduce it, but instead to respond to it as a historian by providing more than one facet of a cultural situation to the reader. Taking *Empire and Communications* as text, McLuhan concluded that Innis was not inclined to moralize as he became better acquainted with the historical processes released by technical innovation.

Another major commonality in their approaches, McLuhan suggests, lay in Innis' rejection of narrow specialism. To make his case, McLuhan demonstrates how the diagnosis of the effects of media environments works:

> The kind of understanding of social processes which Innis achieved is not shared by other historians. Innis is unique in having been the first to apply the possibilities of pattern recognition to a wired planet burdened by information overload. Instead of despairing over the proliferation of innumerable specialisms in twentieth-century studies, he simply encompassed them....A historian like Innis was not inevitable in this age of electric information, but his insights became possible only in our electric time when it is the speed of access to retrieved knowledge itself that provides new possibilities of structural understanding in depth. ("Introduction" to *Empire and Communications*, vii)

McLuhan reformulates Innis' "bias of communications" into an awareness of "perceptual metamorphosis". Here, McLuhan reads his formulation of the core dynamics (discussed in Chapter 1) into Innis' work, and discovers a parallel techno-cultural hermeneutics in the work of the economic historian of communications:

> What Innis indicates as a basis for social survival is nothing less than a reorganization of our perceptual lives and a recognition that the environments we witlessly or involuntarily create by our innovations are both services and disservices that make very heavy demands of our awareness and understanding....(ibid.). With this kind of awareness Innis

> entered into the twentieth century with prophetic eyes; but he was surrounded by people for whom his trained perceptions and insights were merely opaque or transcendental....Innis is not talking a private or specialist language but handing us the keys to understanding technologies in their psychic and social operation in any time or place. (ibid., vii-xii).

Various stories circulate regarding the contact between Innis and McLuhan. When Innis and McLuhan first met, Easterbrook recalls, Innis brought up the subject of the inquisition in Spain, whereupon McLuhan defended the Roman Catholic persecution of Protestants, and the "hard boiled" Innis (as Easterbrook recalls him) argued with McLuhan. Afterwards relations were cool (de Kerckhove interview 1983).
It would appear that they did continue to meet, and that before Innis' publications on communications, McLuhan regarded Innis, then head of the graduate school, as a potential ally. In 1948, following a lunch conversation with Easterbrook and Innis, McLuhan wrote on behalf of Dean Innis to invite Lewis Mumford to visit, and described his version of the conversation: "I was illustrating further possibilities of a genuine encyclopaedic synthesis from your work and suggesting how English, Modern Languages, History and the Fine Arts departments might be got to work together" (*Letters* 1987, 208). Mumford was unable to come. McLuhan first read Mumford in the 1930s, greatly appreciating his work. However he was demonstrably more influenced by the Swiss architectural and art historian, Siegfried Giedion (*Letters* 1987, 136). Siegfried Giedion's *Mechanization Takes Command*, which was published in 1948, renewed McLuhan's aspiration to probe the aesthetic unity that crossed disciplinary specialisms. He later described reading Giedion's previous work, *Space, Time, and Architecture* (1941) as "one of the major events of my lifetime" (Stearn 1967, 263).

Easterbrook also brought Innis and McLuhan together for an informal interdisciplinary discussion group he was chairing on "values", which was held over nine evenings in 1949.[13] McLuhan's presentation addressed the topic of the arts as a storehouse of cultural values (Notes from 8 March 1949). The minutes reported that McLuhan told the group that artists such as Joyce were innovators, whose object is to

renew humanity's awareness of itself and of the world by techniques aimed at a renewal of perception through sight, sound, smell, and touch. Historical attitudes towards the arts have varied, and contemporary education does not use the arts effectively as a method to train values. Innis scrawled "humanities" in the margin of his carbon typescript of the session. Innis discussed the topic communications and values, and argued that changes in the technologies of communications, such as the printing press, and the case of the monopoly over communications by the press in the U.S., result in an obsession with the immediate: "Civilization becomes cut off from a concern with continuity, with the long term approach" (Notes from 5 April 1949, 1). Radio arose in response to the monopoly by the press, and contributed to centralization by governments (1949, 2), but offers less opportunity to exercise an individual critical faculty than the newspapers (1949, 3). The important questions for Innis come near the end of the session: "What correlation is to be found between shifts in the means of communication and political systems? Is there pressure that brings innovations?" In response, he advances his general thesis: "Each medium builds up a monopoly that creates a bias which ultimately breaks down" (1949, 5).[14] Innis' concept of monopolies of knowledge will be discussed below.

After reading Innis in 1951, McLuhan took the initiative to write and suggest "an entire school of studies" which would "establish a focus of the arts and sciences" around "communication theory and practice" (*Letters* 1987, 220-23). He proposed that the study of art and economics were both relevant to understanding the "real, living unity in our time" through a "simultaneous focus of current and historical forms" (ibid., 223). This proposal (and the one to Mumford mentioned above) reflected McLuhan's ongoing preoccupation with finding a way to seek intelligibility in the life of forms. Prior to reading Innis, as mentioned, McLuhan came under the influence of Siegfried Giedion. Giedion proposed that there is a unity underlying the apparent chaos of modern sensibility, an approach he learned from his teacher, Wolfflin. McLuhan later told Steam, "Giedion began to study the environment as a structural, artistic work--he saw language in streets, buildings, the very texture of form" (Steam 1967, 263). In his 1951 letter to

Innis, McLuhan refers to this "experiment in communication" or "means of linking a variety of specialized fields by what might be called a method of aesthetic analysis of their common features" a method, he explains that was used by Giedion in *Space, Time and Architecture* and *Mechanization Takes Command* (*Letters* 1987, 223). McLuhan proposed to disseminate a mimeo sheet juxtaposing insights into the unity of or intelligibility of various fields, a mosaic designed to elicit comment.[15]

Intrigued by Innis' *Empire and Communications*, McLuhan believed that Innis' department could be the centre for an educational initiative in communications theory and practice. The prominence and credibility of Innis undoubtably would have advanced McLuhan's objectives. The plan he proposes at this point continues his ambition to reposition the humanities out of the narrow confines of academic English, and to find a new relevance for arts education. He cited Innis' finding in *Empire and Communications* that ages of literature in human history have been few and brief. McLuhan suggests many indicators that the 400-year-old literary epoch was at an end, among them the comic book, although he put a positive spin on popular culture: "The comic book for example has been seen as a degenerate literary form instead of as a nascent pictorial and dramatic form which has sprung from the new stress on visual-auditory communication in the magazines, the radio and television" (*Letters* 1987, 222). In this characteristic thematic linkage of media and education, McLuhan warned: "If literature is to survive as a scholastic discipline except for a very few people, it must be by a transfer of its techniques of perception and judgement to these new media. The new media, which are already much more constitutive educationally than those of the class-room, must be inspected and discussed in the class-room if the class-room is to continue at all except as a place of detention" (ibid.) McLuhan is motivated in part by what he believes to be the irrelevance of English as a discipline. He continues, "as a teacher of literature it has long seemed to me that the functions of literature cannot be maintained in present circumstances without radical alteration of the procedures of teaching" (ibid.) His proposal for a school of communication studies, with a historical and aesthetic

orientation, is "necessary to make studies of the functions and effects of communication on society." He explains: "Present ideas of such effects are almost entirely in terms of mounting or sagging sales curves resulting from special campaigns of commercial education. Neither the agencies nor the consumers know anything about the social or cultural effects of this education" (ibid.)

Innis expressed interest, requested a typescript of McLuhan's hand-scrawled letter so that he might circulate it, and also requested copies of the experimental newsletter that McLuhan had described. He wrote, "I would like to see your views elaborated since they seem very important and could be used as a basis for general discussion" (UTA B72-0003/005). At the top of his copy, Innis scribbled "memorandum on the humanities". This likely referred to the fact that as Dean of Graduate Studies, that previous summer Innis had been asked to look into the future of the humanities at the university, and was planning to write a memo (28 August 1951 letter to Innis from Sidney Smith, UTA B72-0003/005).

In his appraisals and reviews of Innis' later works, McLuhan was convinced that he comprehended the problems to which Innis' work on communications, including his cryptic style, formed a solution. As with his response to McLuhan's letter, Innis was receptive to McLuhan's innovative proposals. A crucial piece of evidence on this point was retrieved by Patterson, whom I quote at length:

> In the spring of 1952, when [Innis] was dying of cancer, the economist, W.T. Easterbrook, wrote to him about his own"current preoccupation with McLuhan's 'juxtaposition of unlikes'" as a means of gaining new insights into what is juxtaposed. "It is a method not at all uncommon in your own writings but it is only recently that I have begun to see its possibilities. It is the only way I know out of the dilemma of narrative versus 'scientific' history." "I agree with you," replied Innis, "about the importance of juxtaposition along the lines suggested by McLuhan. It seems to offer the only prospect of escape from the obsession of one's own culture, but of course needs to be carefully considered since while one's own views of one's own culture change as a result of looking at other cultures nevertheless the problem of objectivity always seems to emerge. (1990, 28)

This letter provides evidence in support of McLuhan's position that Innis may have consciously intended his style in the manner McLuhan praised i.e., as, in McLuhan's words, a technique of discontinuity, "a mosaic structure of seemingly unrelated and disproportionate sentences and aphorisms" (Introduction to *Bias of Communication*, vii) which took the "natural form of conversation or dialogue rather than of written discourse" and in which there was a "natural interplay of multiple aspects of any matter" that "can generate insights or discovery" (ibid., viii). McLuhan found art in the formidable prose of Innis. Considering Innis' response to Easterbrook, McLuhan's views seem plausible, in that the two men clearly understood the historiographic problem at hand--namely, how to write history in full awareness of the bias of communications--and they also wrestled with the problem phrased by Easterbrook-that of locating an alternative to the dilemma of narrative versus scientific history.

Had McLuhan not celebrated Innis' difficult prose as the inspired and intuitive application of aesthetic principles to history akin to Baudelaire and Cezanne (ibid., vii), Innis' work might have remained obscure and inaccessible, as it was to most of Innis' colleagues. It might have become a dead end, rather than a point of departure for communications history study, perceived perhaps regretfully as the tantalizing but incomplete later life work of a brilliant and distinguished Canadian economic historian. The Canadian historian, Patterson, takes a similar position on the significance of McLuhan's reading of Innis: "Certainly McLuhan seems to have discovered the only possible way of making sense out of writings that simply maddened other readers" (1990, 30). On different grounds, Marchand reaches the same conclusion: "If Innis is read in the future it will be as a footnote to McLuhan, and not vice versa" (1989, 115). While arguing for thematic continuity between Innis' early work on the fur trade in Canada and later work on communications, Patterson shows convincingly that puzzlement over Innis' later achievement was common among his historian colleagues (1990, 25-59; Berger 1986, 194), and concludes that the parallels between the early and later Innis "could not

be noticed by anyone, however, were Innis not read in the manner McLuhan indicated" (1990, 34).

On the much discussed question of Innis' style, there is a revealing exchange of correspondence between Innis and his prospective editor at McClelland and Stewart regarding a manuscript that had been discussed with publisher Jack McClelland. After apologising for having possibly placed himself in a "false position without realizing it," Innis writes:

> I am not in a position to prepare a book in the sort of language for the sort of person you have in mind. As a student I have been concerned in the main with a very limited audience, emphasizing ideas appealing to them and attempting to convince them with the cumbersome apparatus of the student. I must face the fact, frankly therefore, that the sort of book you have in mind must be done by someone skilled in that sort of work. This implies that a change in stype [sic] adapted to a wider audience means a change in the ideas themselves. Nevertheless I appreciate the point that the change is of no great significance for your purposes and I am quite willing to co-operate along the lines you have suggested if you think it feasible. (letter to Ellen Anderson 10 December 1951, UTA B72-0025/03)

Innis' reservation (in the letter cited above to Easterbrook) regarding the "objectivity" of his cross-cultural method for revealing the bias of communication was not shared by McLuhan. Instead, McLuhan grasped that all cultures implied some bias, in the same way that all cultures represented some distinctive organization of sensory, perceptual, and intellectual life in response to relationships with dominant media and technologies. The question became the hermeneutic one of how to detect the bias, how to characterize and cope with it, and not, in positivist fashion, how to eliminate it. Innis appears to have shared the perception that a bias of communications was inevitable, but was troubled by the implications.

McLuhan praised Innis for a quality they shared as generalists. McLuhan writes that as "a recognizer of patterns," Innis invites us "to consider the formalities of power" exerted by structures in their mutual interaction. "He approaches each of these forms of organized power as exercising a particular kind of force upon each of the other

components in the complex" (Introduction to *Bias of Communication*, ix). McLuhan argued that Innis shifted his attention "from the trade-routes of the external world to the trade-routes of the mind" (*The Later Innis* 1954, 385). Easterbrook argued, as quoted by McLuhan in his review of *Changing Concepts of Time* (1953, 44) that the transition from the study of staples to the press resulted from Innis' study of the effect of prices on the movement of goods, but McLuhan countered that "pricing is so very much an affair of information and communication that it is natural for a student of prices to shift attention from the flow of goods to the flow of information" (ibid.). He restates his point in terms of the core theme of the communications history tradition: "And the penetrative powers of the pricing system were as nothing beside the power of the new media of communication to penetrate and transform all existing institutions and patterns of thought" (*The Later Innis* 1954, 385). McLuhan writes later in a 1970 letter to Hugo McPherson that Innis operated with an "ecological vision" (*Letters*, 409). In a 1973 letter to Barbara Ward, he formulates Innis' achievement in his own terms: "Visual man likes to assume a merely neutral transportation process as between the *figure* and the *ground*, ignoring the complex changes that take place in both *figure* and *ground* during all communications--except for H.A. Innis' *Empire and Communications*" (*Letters*, 467).[16]

McLuhan challenges certain of Innis' conclusions but notes immediately that such criticism, "in no way impairs the validity of his way of testing the structural properties of social forms" ("Introduction" to *Bias of Communication* 1964, x). It is Innis' method as well as his subject matter that commands McLuhan's respect: "He had discovered a means of using historical situations as a lab in which to test the character of technology in the shaping of cultures" and "taught us how to use the bias of culture and communication as an instrument of research" (ibid., xi). Thus, "By directing attention to the bias or distorting power of the dominant imagery and technology of any culture, he showed us how to understand cultures" (ibid.). In Innis, McLuhan found a staunch ally in his conviction as to the importance of study of techno-cultural transformation.

Innis the social scientist broadened the scope of communications by bringing to it his background in economic and political history. McLuhan the humanist brought complementary themata in his studies of the senses and the cognitive and artistic process. They converged on an alternative historiography that postulated a transformative and central role for communications media. The search for a dynamic to account for this techno-cultural transformative process led Innis and McLuhan to acknowledge the significance of the role of the senses, beginning with eye and ear. McLuhan went on to probe the structure of language itself, regarding language as the first mass medium. In his thesis of mediamorphosis, McLuhan reworks Innis' attention to the cultures of eye and ear into "a structural analysis of the modalities of the visual and the audible" (ibid., xiii). Thus, he distinguishes his interpretation of the decentralizing yet participatory impacts of the "new electric pattern of culture":

> [Innis] is merely assuming that an extension of information in space has a centralizing power regardless of the human faculty that is amplified and extended. But whereas the visual power extended by print does indeed extend the means to organize a spatial continuum, the auditory power extended electrically does in effect abolish space and time alike. Visual technology creates a centre-margin pattern of organization whether by literacy or by industry and a price system. But electric technology is instant and omnipresent and creates multiple centres-without-margins. Visual technology whether by literacy or by industry creates nations as spatially uniform and homogeneous and connected. But electric technology creates not the nation but the tribe-not the superficial association of equals but the cohesive depth pattern of the totally involved kinship groups. Visual technologies, whether based on papyrus or paper, foster fragmentation and specialism, armies, and empire. Electric technology favours not the fragmentary but the integral, not the mechanical but the organic. It had not occurred to Innis that electricity is in effect an extension of the nervous system as a kind of global membrane.(ibid., xiii-iv)

With respect to Innis' dramatic model, a "very different kind of historiography from the previous narrative type," McLuhan writes: "It is not surprising, however, that having committed himself to this kind of dynamic history, Innis found himself led eventually beyond the confines of his own subject matter. The technique of total presentation or

reconstruction led swiftly to the vision of the total inter-relatedness of social existence" (*The Later Innis* 1954, 386). "It is quite evident that Innis was not prepared for all this." (ibid., 386) Why? Because: "Absent, however, from his equipment as a social analyst was training in the use of the tools of artistic analysis." (ibid., 387)

> No individual can ever be adequate to grappling with the vision of what Siegfried Giedion calls "anonymous history." That is to say, the vision of the significance of the multitude of personal acts and artefacts which constitute the total social process which is human communication or participation....The patient, watchful analysis of these intricate modes of social experience such as Siegfreid Giedion brings to anonymous history was lacking in Innis. For Innis the concept of the media of communication led him towards a panoramic survey. But it was a survey of great range and value. (ibid., 386-89)

In fact, McLuhan shared this lack of patient, watchful analysis. Among the many things he brought to the conjunction was his training in critical awareness of the artistic process, the absence of which, he complained privately in a 1971 letter to Kuhns, was Innis' "gross defect" (*Letters* 1987, 418). The conjunction of the two brought a vision of great scope to the study of communications history. Both moved beyond the disciplines of their training-economics and literature, respectively-and found in communications that crossroads that held the plenary potential for their sweeping theories.[17] The tradition remains open and tantalizing in its promise.

In retrospect, it seems apparent that Innis' original and respected contributions to Canadian economic history, his stature as public intellectual (member of several government inquiries) and Dean of Graduate Studies at a leading Canadian university, lent him the credibility to defy the academic consensus against the interdisciplinary and speculative study of communications. After his death, his critics were not so kind, a fact for which McLuhan is not solely to blame. Havelock (1982, 35) has also commented on the "professional legitimacy" conferred by the early Innis for the later speculative work. (A college at the University of Toronto was later named after him.) In McLuhan's case, the affirmation of his promise by the Ford Foundation, international attention to *Explorations*, and later global recognition for and popular interest outside the academy

in his work, along with the support of numerous sympathetic individuals, including his friend Claude Bissell, University of Toronto president from 1958 to 1971 (*Letters*, 263-64), allowed him to pursue interdisciplinary communications study despite the hostility and resentment this subject and McLuhan's approach attracted at the University of Toronto and elsewhere.

The Toronto School of Communications deserves to be called a school because it is a way of speaking about the origination point for an innovative set of ideas and themata that significantly expands the horizon of communications study specifically, and the human sciences generally. The tradition of communications history emerges out of the Toronto School as an interdiscipline, meaning a group of scholars "who identity with various disciplines but share a common interest in a theme that crosses traditional boundaries" (Littlejohn 1979,). Each continued to teach within his traditional discipline, while introducing the newer themata. In 1951 Innis taught[18] fourth-year students in Economics and Political Science a course entitled, "Empire and Communications," credited as the requirement in economic history.[19] From his Centre for Culture and Technology, McLuhan taught his graduate seminar on "Media and Society." In the practice of Innis and McLuhan, communications history is deliberately interdisciplinary. It self-consciously rejects specialism, yet borrows purposefully from all disciplines and relies heavily on reinterpretation of the research of others. It routinely crosses the lines that parcel out the human sciences among the humanities and social sciences, and discloses many possible approaches and methods for discovery. It influences a wide array of researchers to tackle their subjects in new ways. Methodologically and theoretically, it calls into question the cultural bias of the researcher. It lacks the fixity of method or problem that characterizes conventional disciplines. The oxymoron, "emergent tradition", represents an attempt to capture, without collapsing, the themes that unite, and the emphases that divide the respective contributions to communications history of Innis and McLuhan.

What the two men share can be discussed in Holton's sense as themata. Each in his own fashion and for his own reasons became convinced of the truth and validity of the insight that communications media and technologies were crucial agents in historical cultural change. They saw the wisdom n pursuit of what McLuhan called "the epistemology of experience as opposed to knowledge." At Innis' death he left in rough manuscript form the last eight parts of an eleven-part work on the invention of paper and the printing press and the international history of the newspaper.[20] During his final years he dedicated himself to mining secondary sources, so as to locate historical evidence with which to illuminate the themes that commanded his later thought. McLuhan, as indicated in Chapter 1, took Innis and others as point of departure for pursuit of his own thematic objectives. His intuition and rhetorical ability permitted him to invent ways of grasping and expressing these insights--poetic wordplay the tenacious academic Innis never mastered.

McLuhan's diagnosis of the master historical shifts from orality to literacy, and the significance of the printing press were indebted to Innis, and he extended these patterns further into a more detailed treatment of the shift from manuscript to typographic culture, and generalized the observations to understand electric media. In the early 1950s he began to develop his thesis of mediamorphosis, the transformation of cultures consequent upon introduction of new media and technologies. He speculated more intensively than had Innis on the core dynamics by which media and artefact forms worked their effects in relationship with the senses, yet he did not ignore institutions. McLuhan consistently probed for a clearer formulation, eventually arriving at the tetrad and locating the 'perceptual metamorphosis' in the relationship of brain and created environment.[21]

There are nevertheless numerous important distinctions, beginning with McLuhan's suggestion that Innis would have benefitted from training in the application of aesthetic principles to history. One significant divide was McLuhan's attitude toward his diagnosis: he considered a moral stance a deterrent to genuine insight, an impertinence in

the face of "anonymous history". Although over the whole course of his career his ambivalence on the matters he discussed is in evidence, McLuhan recognized the potential promise of culture transformed by electronic media, and believed that it was necessary to see the present clearly, in order to discern the future He told Edward Hall, "My own avoidance of value judgements about the effects of technologies is based on practical experience. Such opinions simply derail all further discussion of the nature of technology" (*Letters* 1987, 421). With this ground-breaking stance over popular culture, media and technology, McLuhan departed from the typical humanist lament. Innis's pessimism meanwhile abandoned the enthusiasm for progress characteristic of some economists. McLuhan believed that, "as a great liberal, Innis was torn latterly between his trust in the blessings of industry and his historian's awareness of the power of the historic process to undo everything that it seemed to have achieved" ("The Later Innis" 1953, 389). McLuhan concluded in his 1953 review of *Changing Concepts of Time* (Northern Review 6) that "Professor Innis experienced a serious conflict between his loyalties to certain nineteenth-century concepts and the realities he perceived in this century."

> He was unwilling to give offence or to create alarm by his observations. Yet much of what he had to say was in itself disturbing. He saw that actual changes in the modes of human communication had in the past been the most radical and fecund sources of political and social revolution. However, in the past few years the scope of change in the means of communication was far greater than during any previous period. He hesitated to draw the conclusion. He created a stammer in his mind and in his prose to protect the sensibilities of his audience. He became obsessed with the need for bureaucratic forms of social structure which would serve to absorb and retard the impulse to ever-accelerating change. He began to open up new lines of communication with our own traditions and our Western past. He became an exponent of Canadian nationalism vis-à-vis the U.S.A. (ibid., 1953, 45-46)

Within a communications history tradition, I have argued that the emphases of Innis and McLuhan can be regarded as complementary. There is however, a key distinction between the work of Innis and McLuhan over their respective approaches to the question

of power, so it seems of particular importance to circle back to Innis' articulation of his themata.[22] This point is best considered through Innis' idea of monopolies of knowledge, a concept central to his later work. Many have observed the ambiguities in Innis' use of this term (Kuhns 1971, 154; Wernick 1986, 130). Characteristically, Innis employs it in an exploratory fashion, without formal definition and intends the term on several levels. It implies the power to control and shape knowledge, conferred by command over access to a medium or technology of communications, on the part of an organized group, which may in fact organize or reorganize institutionally around the medium in question. Such a group might include scribes, priests, newspaper or textbook publishers. The concept simultaneously expresses the conditions that empower or suppress creative thought. In his dynamic macro-historical analysis of the rise and fall of empires, Innis concluded that there is a "tendency of each medium of communication to create monopolies of knowledge to the point that the human spirit breaks through at new levels and on the outer fringes of society" (Innis 1986, 117). Innis' dialectical[23] conception of history identified the perpetual challenge to existing monopolies of knowledge by marginal groups who rally around innovations or alternative media and technologies. In diverse examples, he linked these monopolies of knowledge to rivalries for power among interest groups, now dominant, now marginal, and access to media. Media rivalries are sources of and contribute to other rivalries. For example: "An interest in vernacular scriptures, particularly after the rise of universities, led to conflicts between scholars and the Church" (ibid., 145).

In a paper delivered at a meeting in Paris, in July 1951, Innis describes his work as "attempting to develop an approach to the study of civilizations through the subject of communications and of monopolies in relation to them" ("The Concept of Monopoly and Civilization" 1951b). The dimensions employed in his analysis are time ("the length of time over which a political organization persists") and space ("the territorial space brought within its control"). In "The Press: A Neglected Factor in the Economic History of the Twentieth Century", Innis writes:

> I have attempted elsewhere to develop the thesis that civilization has been dominated at different stages by various media of communication such as clay, papyrus, parchment, and paper produced first from rags and then from wood. Each medium has its significance for the type of script, and in turn for the monopoly of knowledge which will be built and which will destroy the conditions suited to creative thought and be displaced by a new medium with its peculiar type of monopoly of knowledge....The conservative power of monopolies of knowledge compels the development of technological revolutions in the media of communication in marginal areas. (1952, 78)

Describing his paper as a footnote to Graham Wallas,[24] Innis specifies his subject as "the problem of efficiency in creative thought" and concurs with Wallas' emphasis on "the importance of the oral tradition in an age when the overpowering influence of mechanized communication makes it difficult even to recognize such a tradition" (ibid.). He concludes that, "it is difficult to over-estimate the significance of technological change in communication or the position of monopolies built up by those who systematically take advantage of it" (ibid., 108).

All media, Innis postulates, are characterized by specific space-or time-extending properties, and the introduction of a particular medium within a given historical civilization would accentuate certain tendencies. Empires were long or short lived depending on the efficiency of their communications, which in turn implied the ability of creative thinkers to rise to positions of power. Successful civilizations managed to balance monopolies of time and space. Successful empires managed to achieve efficiency in communications, a precondition for economic efficiency:

> The achievements of a rich oral tradition in Greek civilization became the basis of Western culture....The influence of the written tradition, shown in the problems of lex was in striking contrast with the power of the oral tradition in civil law, a contrast that boded ill for the history of the Republic and the Empire....The effect of writing was evident in every phase of cultural life....The spread of writing contributed to the downfall of the Republic and the emergence of the Empire. (*Empire and Communications* 1950, 87-101)

In retrospect, Innis can be seen to include both hardware and software in his meaning of media--that is, types of script, such as the phonetic alphabet or hieroglyphics, as well as types of material media, such as papyrus sheets or clay tablets. He writes: "Each medium has its significance for the type of script, and in turn for the monopoly of knowledge which will be built and which will destroy the conditions suited to creative thought and be displaced by a new medium with its peculiar type of monopoly of knowledge." Control over access to and exclusion from these media create monopolies of knowledge; yet the properties of the dominant media of particular cultures also foster extension in and obsession with space or time. As he warned his Paris audience, under conditions of the mechanization of the paper and printing industries, "the problem of duration or monopoly over time has been neglected, indeed obliterated. Time has been cut into pieces the length of a day's newspaper" ("The Concept of Monopoly and Civilization", 7-8).

Innis' linkage of monopolies, an economic concept, and knowledge, a cultural concept, is evident in his discussion of science and mechanization, which again draws on Wallas:

> Mechanization has emphasized complexity and confusion; it has been responsible for monopolies in the field of knowledge; and it becomes extremely important to any civilization, if it is not to succumb to the influence of this monopoly of knowledge, to make some critical survey and report. The conditions of freedom of thought are in danger of being destroyed by science, technology, and the mechanization of knowledge, and with them, western civilization. (*Bias of Communication*, 190).

Innis saw dangers for the universities in mechanized knowledge as a source of power (ibid., 195). As an antidote he recommended that "universities should subject their views about their role in civilization to systematic overhauling and revise the machinery by which they take a leading part in the problems of Western culture" (ibid.). McLuhan endorsed and highlighted this point, in his 1964 introduction to *Bias of Communication*, citing Innis' disdain for "the departmentalized specialisms of our universities as ignoble monopolies of knowledge" (ibid., vii). Innis' statement was: "Finally we must keep in

mind the limited role of universities and recall the comment that "the whole external history of science is a history of the resistance of academies and universities to the progress of knowledge" (ibid., 194). The specific instance he cites is a period in British history when poor men, talented in creative thought, rose to leadership positions within intellectual, commercial, and political life in the absence of a system of compulsory education (ibid.).

To the mechanization of the word Innis counterpoised his self-declared "bias" with the oral tradition, particularly as reflected in the balance between the oral and written that he diagnosed within classical Greek civilization (ibid., 190). In a clarification of the contemporary situation, which he diagnosed pessimistically as the end of western civilization, Innis adds:

> The impact of science on cultural development has been evident in its contribution to technological advance, notably in communication and the dissemination of knowledge. In turn it has been evident in the types of knowledge disseminated; that is to say, science lives its own life not only in the mechanism which is provided to distribute knowledge but also in the sort of knowledge which will be distributed. (ibid., 192)

Freedom of creative thought and efficiency of communications are linked for Innis to the medium and the bias of communication engendered within a particular civilization.

Like McLuhan, Innis stressed form over content; both attempted to specify the dynamics of the power of media and technologies to reorganize the psychic and social conditions under which cultural life is experienced, and to explore how changes in dominant media changed these conditions. Innis was not a specialist historian on any of the areas he touched upon in his later communications work. His theme, the bias of communications, could only be glimpsed by speeding up juxtaposed moments within the passage of history so as to reveal the forces in action. This dynamic ecological approach distanced him from the norms and conventions of scholarly prose.

McLuhan did not invert or distort Innis' work; rather in his writing and rhetorical practice he demonstrated a way of making Innis intelligible and extending his themes while conjoining McLuhan's own discoveries. Where Innis brought an economic

historian's background to questions of culture, McLuhan brought his literary training to bear on material, as well as symbolic culture, and to his reading of Innis. McLuhan had previously understood (through Burckhardt, Wolfflin, and Giedeon), how to apply aesthetic principles to history. Innis pointed the way to viewing the material world as a continuous circulation, the trade routes of the world; coming from the humanities, McLuhan extended Innis' investigations into the trade routes of the mind and senses, and in so doing gained an approach to the historiographic patterns, and further developed his diagnosis of the core dynamic for techno-cultural transformation.

The key to how McLuhan ultimately transmuted Innis lies in the relations he sets up between the concepts of time and space and the visual and aural sensory modes. He writes in the 1964 forward to *Empire and Communications*: "The entire volume relates to the ineluctable modalities of the audible and the visible, of time and space....Civilization is a precarious balance between written and oral structures of social organization" (1964, viii). Innis' dialectical method, which McLuhan calls his "diagnostic analysis of a complex process" and "total field-theory of cause and effect," has in this way been expanded into a perceptual dimension. Thus, for example, as mentioned above, McLuhan took Innis' "bias of communication" and transmuted it into a "perceptual metamorphosis". In no way, however, did this redirection of Innis' emphases towards McLuhan's themata prevent him from grasping Innis' core themata, as his choice of excerpt from Innis' *Empire and Communications* for the 1964 introduction shows:

> The powerful oral tradition of the Greeks and the flexibility of the alphabet enabled them to resist the tendencies of empire in the East towards absolute monarchism and theocracy. They drove a wedge between the political empire concept with its emphasis on space and the ecclesiastical empire concept with its emphasis on time and reduced them to the rational proportions of the city-state....But the destruction of concepts of absolutism assumed a new approach of rationalism which was to change the concept of history in the West. (cited viii)

Out of this conjunction in the Toronto School emerges a tradition of communications history. Clearly for Innis and McLuhan media is a core thema, but the scope of this term

media is sufficiently broad in their respective works as to justify the phrase communications history. When the conjunction is stressed over the disjunction, it becomes possible to retrieve Innis' specific concerns with the power of social groups and institutions to develop monopolies of knowledge, without losing McLuhan's insights into culture and artistic strategies.

Havelock and The Toronto School of Communications

The third man prominently identified with the Toronto School is Havelock. A Cambridge-trained Englishman who taught classics at Toronto beginning in 1929 before departing for Harvard in 1947, Havelock considers his relationship with Innis "slight" and "a matter of happy coincidence" (1982, 40-42). Nonetheless, he believes that his work may have inspired Innis, a view Patterson accepts as probable (1990, 64-65). The archival evidence, however, indicates a more modest conclusion. Innis wrote, congratulating Havelock on his book, *The Crucifixion of Intellectual Man*: "I was particularly interested in the discussion of the problem of time since I have been wrestling with this subject over a considerable period and I was very much struck by your suggestion that it was linked with the problem of power" (8 December 1951. UTA B72-0025/010). Havelock replied, "You seem to have thoughts of your own which run parallel to my *Prometheus*....and I would be glad to hear what they are" (n.d.). Prior to this exchange, Innis wrote to his friend and colleague, University of Chicago economics professor, Frank Knight, commenting on the relevance of Havelock's book for the question he was wrestling with of how to escape the bias of our own culture in order to understand other cultures. He notes that Havelock was a former student of F.M. Cornford, who will be discussed in a moment. Innis writes about Havelock's work on "the question of the shift from the oral to the written tradition in Greek culture" which was not published until 1963 (letter 21 May 1951. UTA B72-0003/005). Following correspondence with Havelock, Innis arranged a visit for him to Toronto. Havelock writes that he was unable to obtain *Bias of Communication* in Harvard's Library, but is

reading Innis' Stamp lecture, "The Press, A Neglected Factor in the Economic History of the Twentieth Century" (28 January 1952. UTA B72-0025/010). Havelock proposed a Toronto lecture on "The Semantics of Early Greek Science", but writes again just before he arrives to suggest reflections on "the despotic command of short range time made possible by certain forms of technology, in line with your Stamp lecture" (4 March 1952. UTA B72-0025/010). Innis accepts this suggestion. (ibid.). Following Havelock's talk at the University of Toronto, Innis continued to believe that he and Havelock were on parallel tracks in their "general argument" (Preface to *Changing Concepts of Time* 1952). However, in response to a request for suggestions as to who might review his books, *Empire and Communications* and *Bias of Communication*, he observes that Havelock may not be an appropriate choice because "his main concern....is with Greek culture" (letter to F. Knight 29 May 1952. B72-0003-005). Thus Innis recognized the microhistorical scope of his work when compared to Havelock's narrower focus within classical scholarship.

After reading *Preface to Plato* (1963), McLuhan conjoined the work of Havelock, to the emergent tradition, immediately regarding it as a significant confirmation of his insights (*Understanding Media* 1964), and later considering Havelock and himself fellow followers of Innis. While grateful for McLuhan's tireless championing of his book, Havelock eventually downplays the contribution of Innis (1986) and, in his reappraisal of Innis as a "philosophical historian", views his premature death as a "minor disaster in the long history of the human understanding" (1982, 26). Publicly declaring himself again a "follower" of Innis, McLuhan expresses his dismay at this appraisal, and gently rejects Havelock's assessment as "overly modest" (Preface to Havelock 1982, 10). For McLuhan, the tragedy was magnified by the fact that had Innis lived, he might have further corroborated their shared themata. McLuhan's assessment stresses Innis' scope and Havelock's precision, and restates the conjunction:

> Innis was the first person in the Western world to make an extensive study of the effects of technological innovation and the related disequilibrium in man and society. Eric Havelock, on the other hand, appears to me to be

> the first classicist to have made a careful investigation of the effects of our phonetic alphabet in creating disequilibrium in the ancient world. By the strange apposition of these two prominent figures there was created not a connection but a resonant interval....Both Eric Havelock and Harold Innis were radical and revolutionary in restoring formal causality and pattern recognition to their primary place in the investigation of social change. (preface 1982, 9-10).

Havelock thanked McLuhan for supplying the support and recognition for his work that Innis did not live to give (1982, 42). In a later partial assessment of McLuhan, Havelock de-emphasizes McLuhan's revisioning of the oral to literacy shift plainly evident in *The Gutenberg Galaxy* (1986, 10; 27). Havelock recognizes clearly that McLuhan's main theme is "cultural transformation" yet to different effect from my interpretation of McLuhan and Innis' profound insight into techno-cultural metamorphosis (ibid., 27). In a revealing example, he misstates the publication date of *The Gutenberg Galaxy* so that it appears to have been published in the same year as *Preface to Plato* (ibid., 26). There are other signs of a less than careful reading of McLuhan, such as the denial of the attention paid in *The Gutenberg Galaxy* to the condition of orality that preceded the introduction of writing with the phonetic alphabet (Havelock, 26-28). At the end of his life, Havelock revisited these questions and revised his assessment. He concluded of McLuhan: "He made orality the subject of ongoing investigation in scores of institutes and departments of universities devoted to the study of communications technology" (1991, 12).

The Missing Link: F.M. Cornford

A missing link for the Toronto School tradition was the Cambridge classicist, F.M. Cornford, under whom Havelock trained. Innis was clearly aware of the importance of Cornford, and cites him in *Empire and Communications* (1950, 59-60) and *The Bias of Communications* (1951, 129). McLuhan recognized much later, in the 1970s, while preparing *Laws of Media,* that Cornford had been the first to raise a fundamental historiographic question that preoccupied McLuhan, Innis, and Havelock.[25] Cornford's

1936 essay, "On the Invention of Space", broke new ground by posing the question: What concepts of space existed before Euclid? In arriving at this question, Cornford worked by analogy with the twentieth-century paradigm shift from a Newtonian to an Einsteinian universe. Cornford noted that the findings of theoretical physics:

> ...have irreparably damaged the framework of space and time, which formerly served like a skeleton of steel girders to support the structure and determine the outline of the external world....So what we took for the steel structure of the universe turns out to be less like steel than like India-rubber; and the India-rubber itself exists only as an arbitrary figment of the human brain. (1963, 215-16)

Cornford argues that the evidence for the earlier transformation to Euclidean space can be found in linguistic shifts in the philosophic literature of ancient Greece.[26] He writes: "There was a pre-Euclidean common sense, whose conception of the world in space had to be transformed into the Euclidean conception, just as our Euclidean common sense has now to be transformed into the post-Euclidean scheme of relativity" (ibid., 218-19). Euclid's system can be seen, in Cornford's view, as a construction that emerged, and thus was invented at a particular time, in a particular place, displacing previous concepts and worldviews.

Havelock credits Cornford with instructing him in the admonition from William James to take the past on its own terms in answering all historical questions. Innis recalled a similar question about fundamentals, his philosophy teacher's essay question on psychology: "Why do we attend to the things to which we attend?" (1950, xvii). Innis inspired McLuhan's search for the epistemology of experience, as opposed to knowledge. These preoccupations with fundamentals unite the three founding members of the Toronto School in their iconoclastic sensitivity to the anomalies (Kuhn 1970) taken for granted by others. Such a shared investigative stance also animates the core techno-cultural hermeneutic question for the communications history tradition: How do we understand the dynamic relationships between communications media, technologies, and the structures of attention and understanding out of which we make the cultural world we inhabit and ar daily remade by it? The term, media, vastly expands within the tradition

because (as noted above with Innis) it includes the historically changing dominant conditions underlying these structures of attention and understanding, such as the oral, literate, and the "post-literate" posited by McLuhan (*Explorations 1* 1953). The tradition poses variations, not on the theme of technological or media determinism, but rather, on the theme of techno-cultural transformation of the ground for understanding, as implied in this basic and paradoxical question.

Wheras this account prefers to stress the conjunction out of which was born the Toronto School of Communications and the communications history tradition in the early 1950's, Havelock saw 1962-1963 as the point when major new ideas emerged regarding "the oral-literate equation" (1991). Havelock cannot ignore McLuhan, but does not fully appreciate McLuhan's achievement. He understates McLuhan's appreciation of the general dynamics of techno-cultural transformation that prompts McLuhan to begin with orality and then query its revitalization in an electronic phase of history (1986, 127). If Carpenter (1992) is correct in his recollection that Havelock was a subscriber to *Explorations*, then this point is reinforced. Numerous associates of McLuhan published in *Explorations* were engaged in contemporary conditions of orality, including the anthropologists, Dorothy Lee and Edmund Carpenter. McLuhan's distinction was the scope of his understanding, whereby, for example, oral cultures included ancient Greece as well as non-literate cultures. He was familiar with the implications of the twentieth-century work of Parry and Lord as evident in *The Gutenberg Galaxy*, but also with research developments such as an article by the psychiatrist, J.C. Carrothers, who looked at the implications of the introduction of electric media into oral cultures. He recognized the importance of anthropology and collaborated with Carpenter, and others, notably Edward Hall. The kinship among these approaches lay in their mutual appreciation of the significance of both language and physical environment in the fashioning of culture and worldviews and their rejection of the literate bias. Havelock, like Innis, held a more old-fashioned view of culture, less oriented towards daily life, and more focused on the heritage of the West in which all roads lead from Greece. McLuhan's concept of culture was more

roads lead from Greece. McLuhan's concept of culture was more anthropological, at once attuned to daily life while also mindful of artistic high culture. McLuhan's expansive sense of culture was thus more amenable to the inclusion of popular culture.

Where Innis and McLuhan are linked through the centrality of media in their work, the focus on media is less true and less expansive for Havelock. Havelock nonetheless finds in his research independent confirmation of the idea that "the medium is the message" in the following passage, (although he does not mention McLuhan by name).

> It may be objected that to ask this question at all [of the orality of the ancient Greeks including Homer] brings one closer to accepting that modern doctrine or slogan which states that "the medium is the message". Though coined to apply to electronic and audio-visual means of communication recently invented, there is indeed some truth to the dictum as it can be applied backwards to the medium of script. The coverage and content of the message depends upon the efficiency of the script used, and efficiency is measured by accuracy and speed in the act of recognizing or as we say "reading" what the script intends to "say" (1982b).

Note also how Innis' emphasis on the "efficiency" of communications appears in Havelock's work.

Havelock reveals another shared pattern distinguishing the tradition-namely an unsympathetic response from some colleagues in the academy. Havelock commented on this phenomenon, which he attributed to colleagues threatened by an attack on their own "literate", or what Ong (1982) had called a "textual", bias (cited in Havelock 1986, 123). Within his discipline of classics, Havelock discusses the negative consensus at Berkeley against the now classic graduate work of Milman Parry. Havelock's radical thesis on the oral to literate shift of Plato's day was a matter of prolonged controversy. Havelock refers repeatedly to the hostile reception accorded his heresy of regarding Homer as a pre-literate, given the general disdain of literate scholars for "primitive" oral cultures.[27] Havelock worked against the familiar conviction of classicists that all of Greek thought was metaphysical and abstract. Relying on Rhys Carpenter's epigraphy, he concluded that Greek culture was maintained on a wholly oral basis until about 700 B.C.. Havelock argued that the conditions fostering literacy would be slow to develop because they

depended, not on the art of writing by a few but, on fluent reading by the many (1963, ix). In an important insight for the tradition that ties his work to McLuhan's linkage between media, language, and education, Havelock reasoned that for genuine literacy to develop, learning to read must occur at the same time that the biological language of speech is being learned. Here, Havelock intersects with McLuhan's comments regarding the shaping of literacies and sensibilities in childhood and generational change following the introduction of new media, and arrives at an alternative hypothesis on the core dynamic of techno-cultural transformation within the context of the emerging tradition:

> The reading trauma, to use a modern term, had to be imposed at the primary level of schooling, and not the secondary. As late as the first half of the fifth century the evidence, we suggest, points to the fact that Athenians learned to read if at all, in adolescence. The skill was imposed upon a previous oral training, and perhaps....in Attic schools the introduction of letters at the primary level as a standardised practice had begun by the beginning of the last third of the fifth century. Cultural change does not occur in neatly separable episodes with clear breaks in between....The question here is not the availability of writing and of writers, upon which so much scholarly attention has been focused, but on the availability of readers. Any diffusion of the reading habit would depend upon a reform of that ancient school curriculum which had depended upon memorized recitation; a reform, if that is the word, which would enforce mastery of the alphabet as an automatic reflex at a tender age. (ibid., 39-40).

Probing more deeply into orality, Havelock turns to Milman Parry's work, and modifies Cornford's question: What had been the shape of knowledge when preserved in the oral memory and stored there for reuse? He turned to the Pre-Socratics, and asked why they spoke in the curious ways they did: "The formulaic style characteristic of oral composition represented not merely certain verbal and metrical habits but also a cast of thought, or a mental condition" (ibid., x). He continues:

> The Pre-Socratics themselves were essentially oral thinkers, prophets of the concrete linked by long habit to the past, and to forms of expression which were also forms of experience, but they were trying to devise a vocabulary and syntax for a new future, when thought should be expressed in categories organized in a syntax suitable to abstract

> statement. This was their fundamental task and it absorbed most of their energies. So far from inventing systems in the later philosophical manner, they were devoted to the primary task of inventing a language which would make future systems possible. (ibid., x)

He takes a genetic-historical approach to study the shift from orality to literacy because "until the fit word is present, you do not have the idea, the word to become fit requires a suitable contextual usage" (ibid., xi). The crux of the matter lies in the transition from the oral to the written and from the concrete to the abstract, and here the phenomena to be studied are precise, and are generated by changes in the technology of preserved communication, which are also precise.

When Havelock engages with the present, he recognizes McLuhan's pioneering role, and states the essential relevance of his own work for the emergent tradition:

> In America, the proliferation of new media of mass communication has encouraged a new interest in communication as such. What are its modes, its methods, and its aims? Within the range of these problems, an investigation of the modes and effects of oral communication plays an increasingly prominent role. If, as the writings of McLuhan and Ong suggest, the culture of our own generation is seeing a revival of orality as a viable mode of communication with a long historical ancestry, a mode moreover which has advantages over the "linear" methods of the literate word, are we to look into Homer for additional light upon this important question?

McLuhan's search for the core dynamic that animated these transformations and enabled the relationship with media to work its transformative effects, made him sensitive to Havelock's discoveries, notably the significance of the phonetic alphabet. Havelock also shares McLuhan's stress on rhetoric, prose style, and readers, as well as Innis' stress on script. Havelock's insight was that phonetic literacy required a critical mass of readers who were systematically educated to read and write at a young age, to bring about the shift to literacy and conditions for Greek thought. Havelock's research interest was the "growth of the early Greek mind" (ibid., vii). Innis' early recognition of Havelock's promise had been tied in part to a sense of the relevance of Havelock's notions of power in *Prometheus*, or *The Crucifixion of Intellectual Man*, where he had

argued (in a radical move within the climate of McCarthyism), that the "forethinker" with some sense of the balance of the public interest and the way ahead was endangered by current conditions. Innis' point was that the balance and equilibrium between oral and literate traditions, and their respective monopolies of knowledge and biases of time and space led to the creative fertility of Greece. In the present he lamented the decline of the conditions of creative thought as a result of mechanization and powerful monopolies of knowledge. Innis' plea for time was contemporary, not nostalgia for preliteracy, and here Innis recognized a solidarity with Havelock's investigation into the oral, and his moral and political arguments. As observed above, McLuhan's sense of culture was more anthropological, more attuned to daily life and more open to the domain of popular culture. He deliberately kept his religious and political views to himself: "If a few people could only stop asking whether this is a good thing or a bad thing and spend some time in studying what is really happening, there might be some possibility of achieving relevance" (*Letters* 1987, 399).

Innis and Havelock were both classic liberal humanists in their proclivity for moral judgement. McLuhan used his literary training in a self-conscious attempt to see past his bias, to be the antenna, the dew line, and to pursue insights without moralism which he believed could only cloud diagnostics. He argued that had Claude Bernard, founder of experimental medicine, said here is a moral problem instead of looking at the phenomenon, had Pasteur said there is a moral problem, and not looked at the invisible problem of bacteria, we would know their values, but not their discoveries. McLuhan applied his cultural hermeneutics of media and technologies to the process and the forms of communications, and avoided the diatribe of the later Innis. McLuhan was not convinced that all wisdom came from Europe, as Innis announced in his essay, "Strategies of Culture", or from the glory of early Greece, as Havelock implied. When the product of the Chicago School met the product of the Cambridge School in the Toronto School, they converged on communications and the dangers of disciplinary specialism, but diverged on values. McLuhan perceived in popular media culture a new sensibility

being born, a generation gap that manifested itself but had to do not with politics but with the newer technologies and media that saturated the culture, especially TV in his day, and later computers. He did not approve of what he witnessed, as he repeatedly insisted. Yet he considered that a strategy of culture to address these revolutionary changes called for artists, not sermons. The power preoccupying McLuhan was the power of new media to effect cultural transformation. The power that had altered the classical Greek mind fascinated Havelock. The power of monopolies of knowledge and the biases of communications preoccupied Innis. All considered it a matter of the highest important that the power of media, communications, and technologies to reorganize cultural life be recognized. Thus, despite their numerous differences, all participated in the common themata of the communications history tradition, and developed dimensions of a cultural hermeneutics of media.

The McLuhan Galaxy at Toronto in the 1950s

It is thus appropriate to speak in a qualified and retrospective sense of a Toronto School of Communications, which gave birth to an emergent tradition of communications history. Yet such a "school" was unknown to the University of Toronto, and in fact until the 1960s the very idea would have seemed far-fetched. The School originates in the the conjunction of Innis, Havelock and McLuhan at Toronto, and the relationship between the work of Innis and McLuhan is fundamental to the thematics of the Toronto School, and yet these events would have remained a happy coincidence of footnotes except for McLuhan's role. Let me conclude the previous section, and anticipate this one by outlining the argument for considering McLuhan the "hub" of the Toronto School and communications history tradition. Following Innis' death in 1952, McLuhan in his role as co-instigator of the multidiscipinary Ford Foundation-sponsored seminar on Communications and Culture, and as associate editor of *Explorations*, pursued with his associates lines of inquiry into "new media and their powers of transformation" at Toronto in the Explorations Phase of his own work. The

multidiscipinary school of communication theory that he had proposed to Innis did not materialize, and following the seminar he networked and corresponded tirelessly with colleagues from a great variety of fields, world wide, in search of insights and an active intellectual community. Havelock's work was unknown to McLuhan, however Carpenter (1992) asserts that Havelock was a subscriber to *Explorations*. Upon exposure to the work of both Innis and Havelock, McLuhan instantly recognized the relevance of their work for his own, and for the larger inquiry in which he was engaged, making the world of modern culture and its forms intelligible, which can be variously called a historical techno-cultural hermeneutics and an epistemology of experience with artefacts. McLuhan championed Innis' contribution to communications in his own books, articles, and introductions to later editions of Innis' books and kept Innis' pioneering insights into communications history alive during the 1950s. In 1962, McLuhan published his ideas, and in 1964 he succeeded in reaching the wider audience he sought for this new approach in the best seller *Understanding Media*. The term media is prominent in the work of both the later Innis and McLuhan, in the expanded sense of a transformative agency (and not simply a means of transportation of content), that comprises a key distinction of the communications history tradition. McLuhan (1964, vi) found in Havelock's (1963) published discoveries confirmation of the conclusion he had reached during the 1950s with the aid of his multitudinuous sources and which he had set out in essays of that decade, in *Explorations* and at length in *The Gutenberg Galaxy* (1962), namely the recognition of the crucial significance of the phonetic alphabet for the process of techno-cultural transformation from orality to literacy.

The argument about McLuhan's contribution to the emergent tradition then runs as follows. Because he was the Toronto School pioneer expert in modern literary criticism and a student of the history of the visual and verbal arts and of perception, because he pushed Innis' insights into communications history further into the cultural and the technological domain, because inspired by Innis he expanded the range of the tradition through his sources from literature (Joyce and the Symbolists), art history (Giedion,

Gombrich), and the oralists (Parry and Lord), from experimental medicine (Selye), psychology (von Bekesy, Kohler) and beyond, because the network of contacts he made and maintained was so talented and productive, (including lesser known pioneering members of the tradition, such as his Toronto colleague anthropologist, Edmund Carpenter, and former student, Walter Ong, but also including his correspondents Wyndham Lewis, Ezra Pound, Edward Hall, David Riesman), because he linked together his vast sources and this network of associates, because McLuhan was the first to articulate the tradition in such a way as to capture widespread attention--for all these reasons, I conclude that McLuhan as persona and McLuhan's textwork supplied a rhetorical and historiographic hub for the tradition. The Toronto School was not a school in the usual sense, and nor was this network a conventional tradition. The hub metaphor of interconnection updates the idea of an "invisible college" of scholars into the idea of a network, as befits an age of electric communications and transportation. This metaphorical role of the hub extends further. McLuhan's rhetorical abilities and the popular and media-assisted response to his work in the mid-1960s supplied the pivotal and controversial linkage across the spectrum of academic and non-specialist audiences, so that the emergent communications history tradition and its core themata in the understanding of media eventually affected the climate of thought of the late twentieth century. For this popular success he put the study of media on the intellectual agenda, and also lost critical esteem, was deeply resented, and his contribution seriously misunderstood, even by those sympathetic to the tradition. Comprehending the genesis of the communications history tradition in the Toronto School of Communications is part of the task of reopening the rhetorical space on McLuhan's place within the tradition.

The first institutional extension of the conjunction between Innis and McLuhan arose in the seminar on communications and culture. There, Innis' work was prominently discussed, as was that of Siegfried Giedion. This interdisciplinary colloquium ran from 1953-1955, with a grant of $44,250.[28] In a letter responding to a request for comments on the two University of Toronto applications from the Ford Foundation's Robert Hutchins,

Innis wrote: "I do think that the time has arrived when consideration should be given by some organized group to the whole problem of understanding as between cultural groups....With the history of civilization people, such as Spengler, Toynbee and Kroeber, we are in danger of losing sight completely of the problems of culture" (30 March 1952. UTA B72-0025/010).

A primary objective of the seminar was to approach the question of communications and culture by bridging the divide between the humanities and social sciences. As McLuhan had earlier proposed in his 1951 letter to Innis, the route to this end began with an exploration of the core ideas presumed to underlie various disciplines, including political economy (Easterbrook), literature and the arts (McLuhan), anthropology (Carpenter), design (Jacqueline Tyrwhitt, an associate of Siegfried Giedion),[29] and psychology (Carlton Williams, another fellow student of McLuhan and Easterbrook from the University of Manitoba). In 1955, the Department of English "somewhat reluctantly" listed the seminar as a credit course for Ph.D. candidates in English, but not M.A. students (Harris 1988, 134).

The journal *Explorations* styled itself "Studies in Culture and Communications" and declared in its opening manifesto that it was "designed, not as a permanent reference journal that embalms truth for posterity, but as a publication that explores and searches and questions." The manifesto continued: "we envisage a series that will cut across the humanities and social sciences by treating them as a continuum. We believe anthropology and communications are approaches, not bodies of data, and that within each the four winds of the humanities, the physical, the biological and the social sciences intermingle to form a science of man." Collaboration between close colleagues McLuhan and Carpenter, two original and aggressive Canadian intellects, provided the energy to bridge the humanities and interpretive social sciences in the creative interplay of the seminar and the journal. Nine issues of *Explorations* were published between 1953 and 1959. Ten years McLuhan's junior, Carpenter edited the journal, and in a 1992 memoir, he has claimed almost complete credit for it. McLuhan, who was instrumental in

obtaining the funds for the Ford Foundation seminar, had long wanted to establish a journal (*Letters*, 182), but his talents were best suited to the "media logs" or "mimeo sheets" that he published throughout his career, sometimes in *Exploratons*, and which had attracted the interest of Innis. Carpenter supplied the editorial ability for the *Journal* and most important shared the intellectual drive that made *Explorations* an avant garde classic of the time. He performed most of the administrative work, and his muscular and vivid prose style were indispensable to the journal. The two men were well-matched intellectual sparring partners. In his memoir, Carpenter recognizes no tradition for McLuhan, preferring instead his personal recollection of him as a maverick: "Marshall wasn't like everybody else. He wasn't even like anybody else" (1992, 8).[30] Carpenter's anthropological sensibility attracted McLuhan, since it resonated with his outsider sensibility and resembled the artist's approach. As discussed in detail in Chapter 1, McLuhan wrote prolifically, and took up exploration of the theme of media in most issues of the journal, where his essays and epigrams (often unsigned) appeared in all but the last volume. Meanwhile, he also published elegant, lucid criticism in various literary and professional magazines. *Explorations* circulated in France, Great Britain, and North America. Portions were reprinted in *Explorations in Communications* (ed. Carpenter and McLuhan) in 1960, and later as *Verbi-Voco-Visual Explorations* (a reprint of *Explorations* 8, which McLuhan had edited and raised funds to publish) under McLuhan's name in 1967. The last issue of *Explorations*, in 1959, featured Carpenter's book, *Eskimo*, based on field research upon which McLuhan would draw repeatedly to illustrate the qualities of acoustic space and oral cultures. McLuhan said later:

> We started *Explorations* when we felt we had something to say. We stopped it when we felt we had said it....The idea that one could run something of real international interest and excitement in a backward area like Canada charmed them. Canadians are all a very humble bunch. They take it for granted that everything they do must be second rate. Carpenter and I assumed that since nearly everything in the world is second rate at best, there was no reason why we couldn't do something that was first rate right here. So it happened. (Stearn 1967, 263; 265)

Explorations represented a kind of testing ground for the emerging tradition, and McLuhan was influenced by many of its talented contributors. Chaytor's article, "From Script to Print", for example, laid the ground for McLuhan's later detailed exploration of some of Innis' themes in *The Gutenberg Galaxy*. In addition to the work of McLuhan and Carpenter, *Explorations* published the work of all members of the seminar, and also included Innis, Riesman, Frye, Giedion, Ong, Gyorgy Kepes, Ashley Montagu, Robert Graves, and Dorothy Lee. A joint session between the seminar participants and a group of researchers on communications was held at the University of Louisville in 1953, and included Edward Hall. It was an important meeting of minds across conventional disciplinary divides. An early formulation of Edward Hall's work on intercultural communications, with no reference to what he later called extensions of man, and also absent his later prominent focus on the Innisian themes of time and space, appeared in *Explorations 3* (1954 Trager and Hall).

Some have argued that all of McLuhan's later ideas can be traced to *Explorations* (eg. Marchand 1989, 133); however while his thinking in the 1960's and 1970's is certainly prefigured here, examination of the textual evidence indicates that this is an overstatement. As argued in Chapter 1, his literary essays and other less self-consciously avant garde writings during the same period also reveal important stages in his thinking.[31] His initial synthesis of the thinking of the 1950s, and contribution to a communications history tradition, appear at the end of the decade in *Project in Understanding New Media*. During 1959 he coins the phrases the medium is the message and the global village, and thus invents the rhetrical vocabulary for teaching the themes he has now developed.

In the mingling of humanities and social sciences, McLuhan's focus on media and communications deepened. Carpenter (1992) observes that McLuhan wanted to be perceived as scientific in order to gain support for his ideas. Yet the record shows clearly that McLuhan had always considered the insights of natural science available for his emerging ideas, in keeping with the inclusive notion of truth and encyclopedia humanist

stance legitimated by his Cambridge English School background. McLuhan's approach was deliberately non-specialist and interdisciplinary, a position he shared (at least in spirit) with Innis. He collaborated across disciplines, believed communications should be taught in through student access to professors in all university departments, and considered that artistic and humanist insights could provide access to truth as much as could the natural or social sciences. Carpenter (1992) recalls that media experiments were conducted in both years of the seminar to test the effects of four forms of media by comparing student recall of a lecture conveyed face to face, via radio, via print and via television. Williams wrote a report for the journal, and concluded that TV and radio produced greater recall than standard lecture format and print. Publicity appeared in the *New York Times*. This experimental work with audiences resembled the techniques of "Practical Criticism," in I.A. Richards' sense, now apllied to media instead of poetry. While at Cambridge McLuhan had been sceptical of the value of Richards' approaches (*Letters* 1987 [1935], 50). McLuhan's doctoral work, the large scale cultural analysis he had already demonstrated in *The Mechanical Bride*, and his essays of the 1940s and 1950s, indicate that although he would incorporate insights from any orientation, including experimental results, his own observations and theories followed the grand lines of cultural history sketched by Innis, rather than an experimental tradition. He was of course not trained in social scientific methods, so any validity he did manage to obtain must come from the sheer force of his assembled evidence. He was however well aware of the significance of a 'crucial experiment' as indicated by his attempts in the 1970s to initiate a study before and after the introduction of television into Greece, and to study the sensory profiles of populations. The point is that in all of these efforts, he was dependent on collaboration, and all collaboration with psychologists failed. Work with Carpenter, Hall and the reading of other gifted anthropologists (notably Margaret Mead, Gregory Bateson and Ruth Benedict) had a profound impact on his work. But in the final result, Innis' sweeping communications historiography inspired him to the boldness of macrohistory that he had also glimpsed in Giedion's "anonymous history."[32]

Carpenter left to chair an anthropology department in the U.S. in 1958. The two continued to correspond, and when McLuhan was named to the Schweitzer Chair in Humanities at Fordham in 1967-1968, Carpenter accepted an invitation to join McLuhan there. In the 1970's, McLuhan wrote on several occasions to Carpenter, suggesting renewed collaboration. These proposals were rejected. McLuhan found in Carpenter an ally for his emerging views, as well as a talented editor, able to tame McLuhan's conversational wit and experimental prose. In *Oh, What a Blow That Phantom Gave Me!*, Carpenter writes a form of anonymous scholarship, as the book reads like an amalgam of Carpenter and McLuhan, though the latter is mentioned only in passing.[33] In his essay "New Media, New Languages", which originally ran in *Explorations* and was included in several anthologies along with McLuhan's essays, again the voices of the two men are intermingled. The essay stands as testimony to the fertility of their collaboration, and the clear prose style of Carpenter.

The evidence for arguing that McLuhan represents the hub for the network that realized the communications history tradition can be found in the inclusion of his associates in his textwork. In addition to Carpenter, another such associate was anthropologist Edward Hall. His book *The Silent Language* (1959) influenced McLuhan to further develop insights explored with Carpenter into the structuring impact of l anguage on culture through what Hall considered the invisible ground rules. Hall was deeply indebted to the descriptive linguist Edward Sapir (1959, 49; 62), for pointing to the notion of culture as explicit and implicit and also expressed his debt to Benjamin Lee Whorf (as he had in the *Explorations* 3 article) for his pioneering insights into the role of language in the deep patterning of cultural experience. McLuhan drew upon the work of Carpenter and Hall and his highly developed " ethnographic imagination"[34] in formulating his core themata regarding media as languages, extensions, and environments. In *The Hidden Dimension* (1966), Hall recognized his association with Carpenter and McLuhan, wherein each man independently had studied art as an indicator of how artists use their senses and communicate this perception to the viewer (80). By

application of this tactic to literary texts, as McLuhan (1962) had showed, Hall includes literary texts as anthropological data rather than simply descriptions (94). Once again, the ideas flowed through a network of affiliations, with McLuhan as hub.

McLuhan also continued to teach and supervise theses in the English Department. From 1963, the year his *Gutenberg Galaxy* won the Governor General's Award for Non-fiction, McLuhan was cross-appointed to English at St. Michael's College, the Graduate English Department, and as director of the Centre for Culture and Technology, which was established to investigate "the psychic and social consequences of all technologies." The Centre had no degree granting authority (Harris 1988, 115; 134). Approval of the Centre by the School of Graduate Studies had to overcome the opposition of then Dean Andrew Gordon, who, unlike his predecessor, Dean Innis, and his successor Ernest Sirluck, "despised interdisciplinary research centres in general and McLuhan in particular" (Marchand 1989, 159). In 1967, the School of Graduate Studies "reluctantly" approved one graduate course, "Media and Society", taught at the Centre (ibid., 160). The University of Toronto, unlike other Canadian universities, did not establish a graduate communications degree, a development elsewhere linked to journalism departments, as at the University of Western Ontario, or to English departments, as at McGill.[35] Robert Harris attributes this neglect of communications to the "narrowing effect on English studies" resulting from the lack of a basic course in rhetoric at the University of Toronto (1988, 201-02).[36] McLuhan later praised the McGill degree program, which had been established by his former student Donald Theall, in a letter to Claude Bissell, and again promoted the concept of an interdisciplinary seminar-based communications degree program (*Letters*, 476). This did not happen.

The communications history tradition achieved its original statement with the works of Innis in the early 1950s. McLuhan was the most prominent of those who incoporated and extended Innis' work on media, technology, culture and communications, and the fertility of the tradition is demonstrated in the works of McLuhan that appear beginning in the 1960s. Havelock's narrower and more conventionally scholarly approach

completes the trilogy of the tradition, but as this brief discussion suggests, there were numerous other associates who contributed and to whom McLuhan is indebted. This debt is readily evident in a reading of his textwork attentive to his sources. His institutional impact in Canada was unquestionably minimal, except insofar as he inspired his student and later skilled administrator, Donald Theall, who had taken part in the seminar and contributed an essay on James Joyce to *Explorations*. The argument that McLuhan is unoriginal cannot be sustained, for many reasons; at this point let me just mention the sheer force of his juxtaposed mosaic textwork, that spanned the range of the tradition from prehistory through to the present, and his ability to shape these powerful ideas into what Chapter 1 discussed as his theory of mediamorphosis and to invent a vocabulary with which to make sense of the media-saturated world. To regard the enthusiasm for his ideas about media and the transformative powers of communications as merely the byproduct of marketing hype is to seriously underestimate the intelligence of the public, and to demonstrate the unacknowledged factor of envy and resenment of popular success within the academy.

The synthesizers

Much later, the communications history tradition shifts from its early period of inspiration and independent insight into a synthesis phase with the publication of two major works that extend aspects of the core themata: the orality literacy question in Ong's *Orality and Literacy* (1982) and the impact of the printing press in historian Elizabeth Eisenstein's *The Printing Press as an Agent of Cultural Transformation* (1979). Direct evidence for the fertility of McLuhan's articulation of a matrix of broad themes can be found in these later scholarly syntheses. In keeping with the rhetoric of inquiry approach, the interest of this section lies in thes rhetoric on McLuhan of these authors, which is considered below. Whatever their other merits, and they are considerable, these authors are deeply indebted to McLuhan's expansion of what Holton (1973) calls the historical

and thematic imagination regarding communications media and their role as agencies of cultural and sensory transformation.

McLuhan's contribution cannot sensibly be ignored by those whose thematic imagination is thus expanded. Considering the intertwining of McLuhan's work and his cultural significance as a phenomenon--or persona, as Czitrom (1982) echoing Carey (1967) has it--the ambivalent rhetoric of appropriation/rejection directed against him by those whose work he believed corroborated his own insights requires explanation. The interpretive hypothesis is that these moves seem designed in part to clarify the proper bounds of legitimate scholarship by ostracizing McLuhan as a creative maverick. In the absence of a conventionally established tradition, or normal school, the popular attention for McLuhan's innovative ideas, aesthetic strategies, and experimental texts provided the emergent tradition of communications history with a controversial figure against whom to react. By comparison, those who came later did not seem so unorthodox. If they obeyed the conventional rules of the academic game, they might hope to achieve respectability. By disclaiming affinity with McLuhan while incorporating his insights, later researchers within the communications history tradition attempt to escape the animus that McLuhan attracted, and to avoid the pollution of his popular celebrity, all the while benefitting from the attention directed to their field, while securing an academic legitimacy denied McLuhan. A related interpretive hypothesis suggests that McLuhan's marginal position as a Canadian scholar who mostly remained in Canada contributes to the apparent success of these tactics within the academy.[37]

To anticipate the interpretive hypothesis which will be argued in Chapter 3: Had it not been for media and popular attention to McLuhan's ideas, a rival power to the academy's power to excommunicate him and counterbalance of sorts to his marginal national location at the University of Toronto, his influential impact on the thematic imagination and lexicon of his time would most likely not have happened. On this counter-factual reasoning, the media emerge paradoxically as a counterforce to the academy, with profound consequences for intellectual life.[38]

McLuhan's former student, Walter Ong is a major figure whom McLuhan brought into the orbit of the Toronto School. While his work has become prominently identified with the communications history tradition; I suggest that this identification is misplaced, and that Ong's important work should be viewed as supplying a synthesis of one thematic strand of the tradition. In tracing the trajectory of Ong's preeminence by the 1990s within communications, Carey offer in the preface to an appreciation of Ong (Gronbeck, Farrell, and Soukup 1991) his historiographic version of the genesis of the communications history tradition which he calls "the gathering at the University of Toronto, as the 1940s turned into the 1950s, of a then obscure assemblage of scholars". He continues, " Harold Innis, Marshall McLuhan, Northrop Frye, and Eric Havelock were a loose and disjointed group and hardly aimed at what they wrought: the creation of a distinctive North American version of communication theory."[39]

Carey (1991) deems the work of the Toronto group "decisive" because "they created another track of intellectual life where technologies of communication could be studied historically and rhetorically, not merely as expressions or addenda to the mode of production of information but also as forms of cultural creation, transmission and preservation-modes of cultural production, which are also and more than modes of information" He concludes: "no one has better defined that project, shaped its boundaries, given it coherence, mapped its problems, or humanely articulated its intent than Walter Ong." This assessment seems surprising in light of Carey's earlier verdicts on the importance of Innis for the tradition, considering that Innis is not mentioned in Ong's synthesis. *Orality and Literacy*. Continuing in this vein, Carey admits that Ong absorbed much from McLuhan regarding electronic communication, but Ong's contribution was to produce "detailed, narrow-focused studies" (ibid., ix), which were "never a form of simple technological determinism" (ibid., x). Marchand likewise overstates the role of Ong in the communications history tradition (1989, 59; 155).

Circling back, McLuhan taught Ong, a Jesuit priest, at St. Louis University. McLuhan supervised Ong's masters thesis on the Roman Catholic poet, Gerard Manley

Hopkins, suggested to Ong his doctoral thesis topic (a study of the work of Renaissance educator and theologian, Peter Ramus), and introduced him to the work of Perry Anderson, who became Ong's thesis supervisor at Harvard. Ong studied "Rhetoric and Interpretation" with McLuhan, read McLuhan's doctoral thesis, and was exposed in the 1940s to McLuhan's practice of thinking out loud while he developed his ideas on the trivium, media, and culture. McLuhan welcomed the chance to frankly discuss his broad intellectual concerns with a fellow Roman Catholic. Ong's second published volume on Ramus (1958) is dedicated to McLuhan, "who started all this." In this study, Ong cites Innis in passing, and knew his work through McLuhan. As discussed in Chapter 1, McLuhan's 1952 letter to Pound indicates that he had arrived at the themes he would develop in *The Gutenberg Galaxy* following contact with the work of Innis (*Letters*, 231). In his outline of inventions and consequences he lists writing-alphabet, printing, telegraph, radio-telephone, cinema-TV. He also mentions his planned book on "The End of the Gutenberg Era" in a letter to Ong, noting that the switch to the mechanization of gesture from the spoken word, in such media as radio, TV and movies represents "a much greater change than from script to print" (*Letters* 1987, 234). Ong seems to have been influenced by McLuhan to direct attention to the printing press, as indicated in his 1958 Ramus book. Marchand errs in his conclusion that McLuhan received the ideas for *The Gutenberg Galaxy* from Ong, nor can that work sensibly be reduced to a fuller treatment of Ong's article in *Explorations*. On the other hand, McLuhan generously and properly cited Ong's achievements in *The Gutenberg Galaxy*. Ong's celebration of mathematical and symbolic logic, and concern in his Ramus work to resurrect and justify the scholastic logical disputations of the medieval schoolmen stood in sharp contrast to the scorn he heaps on the humanists. These motives are foreign to the published work of the more secular, humanist and rhetorically oriented McLuhan.

Subsequently Ong recognizes that in his probing for the core dynamic, McLuhan had come up with a crucial insight in the *The Gutenberg Galaxy*: interiorization, a process by which the ratio of the senses (and Vico's sensus communis or sensorium) was altered

through extensional relationships with media and technologies. (This again is the idea Lanham (1992) gets at in his metaphor of the "operating system.") In his 1965 essay, "Oral Residue in Tudor prose Style" Ong borrows McLuhan's term interiorization from *The Gutenberg Galaxy* (1971, 26). Drawing on McLuhan's emerging diagnosis of the core core dynamic, Ong writes: "Habits of thought and expression inseparable from the older, more familiar medium are simply assumed to belong equally to the new until this is sufficiently interiorized for its own techniques to emerge from the chrysalis and for those more distinctive of the older medium to atrophy" (ibid., 13). McLuhan's insight shapes all of Ong's subsequent contributions, and eventually leads him to depart from the thematic focus on media that unites the work of Innis and McLuhan in order to pursue study of consciousness. At this early point, Ong works with a psychic evolutionary process that links the three stages in the development of communications media (oral, chirographic-typographic, and electronic) with the Freudian psychosexual stages (oral, anal, genital), a connection he attempted to demonstrate in *The Presence of the Word* (1967). An example of this linkage indicates Ong's somewhat bizarre orientation at this point:

> Rhetoric at its most impressive peak was heroic and masculinizing through its association with puberty rites. In the West...the study of Latin had the characteristics of a male puberty ritual....When Latin gradually disappeared and concomitantly schools began to admit girls, formal rhetoric also disappeared. The ego dominance fostered by rhetoric is evident particularly in the Renaissance, which in many ways represents the phylogenic high point of rhetoric development. (More had far greater confidence in his own masculinity, though, with Erasmus, he also scorned formal logic with a passion and to this extent remained in the rhetorician's camp). (1967, 14-15)

In his letters to Ong, McLuhan insisted on the significance of the psychological discoveries of Jung and Freud, particularly for Catholics whom he considered had ignored these writers. Unlike McLuhan's approach, Ong's early writings seem to consider non-literate cultures as primitive and childlike. His application of Freudian psychosexual stages to the history of communications modes exemplifies this tendency.

McLuhan took no such view, continually affirming the alternative, not less developed, attributes of oral cultures. In his prolific career as published author, Ong exemplifies the Catholic priest as educator, pronouncing on the moral quality of contemporary life. He shows limited sympathy for the secular, popular culture, women, and adolescents. The linkage to popular culture is the clue here, for Ong made no secret of his commitment to Roman Catholic orthodox values (see, for e.g., *The Barbarian Within*). His assessment of McLuhan (1981) is that he was a great teacher; however, Ramus had the reputation of a great teacher, yet was, in Ong's appraisal, a popularizer, simplifier, willing to appeal to teenagers, and not a serious thinker. Ong also questions McLuhan's use of satire, wondering what moral value lies in the genre (de Kerckhove interview 1983).

But the major problem with Carey's nomination of Ong as principal heir to the emergent tradition of communications history is that he does not share Innis and McLuhan's expansive focus on media of communications. In his masterful synthesis of the orality-literacy question, Ong recognizes McLuhan's achievements and defends him against some of the attacks. "Few people have had so stimulating an effect as Marshall McLuhan on so many diverse minds, including those who disagreed with him or believed they did" (1982, 29). Ong absorbs McLuhan into his system, drawing heavily as noted on McLuhan's idea of "interiorization" and also on his point that media are not neutral, nor simply external, but also have internal in consequences (e.g. *Rhetoric Romance and Technology*). Ong's underlying themata echoes McLuhan's influence, and expresses the thematic unity within the tradition:

> Both orality and the growth of literacy out of orality are necessary for the evolution of consciousness. To say that a great many changes in the psyche and in culture connect with the passage from orality to writing is not to make writing (and/or its sequel, print) the sole cause of all the changes. The connection is not a matter of reductionism but of relationism. The shift from orality to writing intimately interrelates with more psychic and social developments than we have yet noted....But most of these developments, and indeed very likely every one of them, have themselves been affected, often at great depth, by the shift from orality to literacy and beyond, as many of them have in turn affected this shift. (1982, 175)

The correspondence between McLuhan and Ong in the late 1940s and early 1950s indicates that McLuhan a kindship between his work and that of Ong, in no small part because of their shared religion and Thomist interest in the interior consequences of changes in communications, or what McLuhan referred to as "the life of forms." Unlike McLuhan, Ong later focused directly on the word and probed consciousness, preferring to regard his work as within 'the noetic sciences.' McLuhan's contact with Innis allowed him to go further and link the curriculum of the trivium to the technologies of speech, writing, printing and electric media, while searching for the core dynamics that animates human relationships with their technological extensions within the historiographic patterns. Ong (1981, 175-177) attempts to enlist McLuhan in the move away from the study of "media", stating that his book avoids the term. He raises the familiar objection that medium seems to connote a pipeline, with the mind like a box. This of course is to miss the important thrust of McLuhan's explosion of the meaning of media, while making use of McLuhan's insights. Ong's suggestion should be resisted, as it seeks a return to familiar modes of thinking whereby the question of media and technologies, and their distinctive roles as agencies in techno-cultural transformation could easily be lost again. Distinguishing the work of the two brings to the fore McLuhan's dynamic sensory and communications ecology, and the importance of his speculations on translation and the combination process of the brain and relationships with media, beginning with the moulding of sensibility and literacies in childhood and youth. Against a landscape lit up by McLuhan, Ong's abilities as scholarly synthesizer and valuably painstaking focus could take shape.

Elizabeth Eisenstein's book *The Printing Press as an Agency of Cultural Transformation,* places her firmly (if unwillingly) within the communications history tradition, and illuminates the rhetoric of intellectual controversy on McLuhan. She admits that she was inspired by McLuhan to undertake her investigation, but then proceeds to claim McLuhan's expansion of the thematic horizon of communications history as territory for the conventional discipline of history. The transparent operations of Eisenstein's rhetoric indicate an attempt to construct a monopoly of knowledge. The polemical nature

of her rhetoric is part of a scholarly tradition of attempting to tame the new, and incorporate it into older approaches. It also manifests the themata and anti-themata of generalist versus specialist. The paradox of McLuhan for Eisenstein is that while he serves as inspiration--by 1991 she prefers to say she was "provoked" not inspired--it is necessary to discredit his contribution in order to claim the field for the older discipline of history, in preference to McLuhan's field of communications, deemed too avant garde.

Eisenstein employs diverse and contradictory tactics. First she admits McLuhan's originality, then seeks to demolish it by citing his sources and arguing that he must have been indebted to these predecessors. She maintains throughout that the study of the transformative effects of the printing press can only be conducted properly by historians. Eisenstein offers ample evidence in her review of the historical literature that when McLuhan advanced his ideas, they were unprecedented. Eisenstein attempts to have things both ways. On the one hand, she demonstrates how professional historians have ignored an "unacknowledged revolution". On the other hand, she rebukes McLuhan for acknowledging this revolution. In her preface, she states:

> [N]eglect by conscientious scholars has allowed the topic to go by default into incautious hands. Although Marshall McLuhan's work stimulated my historical curiosity, among many of my colleagues it has been counter-productive, discouraging further investigation of print culture or its effects. Concern with the topic at present is likely to be regarded with suspicion, to be labelled "McLuhanite" and dismissed out of hand. I hope my book will help to overcome this prejudice and show that the topic is not incompatible with respect for the historian's craft. [1979, xvii]

She repeats "Evasion on the part of careful scholars allows the topic to go by default into more careless hands" (ibid., 39) and accuses most communications scholars of ignoring history, citing Jowett for support. But she cannot make this claim with respect to McLuhan, Ong or Innis: "The apparent blindness of most scholars to effects exerted by the medium they look at every day has been most emphatically stressed and elaborately treated by Marshall McLuhan." *The Gutenberg Galaxy* appears to Eisenstein "bizarre and chaotic" (ibid., 17). The typographical format she perceives correctly as designed to counteract the conditioning of print; however, such creative experiment is outside the

bounds of normal scholarship. McLuhan claims that his ability to withstand the quasi-hypnotic power of print is due to the advent of new audio-visual and electronic media, which affect our senses and condition our perceptions differently so that the new media break the bookish spell of the past five centuries. McLuhan presents his thesis in an unconventional format and thus tends to undermine it by drawing heavily for substantiation on conventional scholarly literature and reiterating conventional nineteenth-century literary themes. You cannot have it both ways Eisenstein decrees. You cannot be unconventional and conventional at the same time. And now her interpretation: McLuhan is in fact old-fashioned and his wide ranging reading and the difficulty of organising it is quite simply explained as the scissors and paste mode of scholarship. Forget the Symbolists and Joyce. No elaborate media-analysis is required to explain current myopia about the impact of print, intones Eisenstein: they are simply common and not newsworthy. This allows her to dismiss McLuhan's arguments on electric media. Typography is still indispensable to the transmission of the most sophisticated technological skills. It underlies the present knowledge explosion and much of modern art. "In my view," she argues, "at least, it accounts for much that is singled out as peculiarly characteristic of mid-twentieth century culture." Because newer media are more newsworthy, "repercussions that are actually being augmented and amplified at present are paradoxically believed to be diminishing instead" (ibid.,17)

She restates McLuhan's thesis that typography has become obsolete and that an "electronic age" has outmoded the "technology of literacy" but quarrels that he has overlooked what is under his own eyes. She dismisses the popular attention to McLuhan's ideas: "Articles speculating about the effects of television will thus find a larger market than conjectures about the impact of print" (ibid,). Now the popular audience and its fondness for fads and fashions are to be blamed for the resonance of McLuhan's ideas, and for what are obviously his breakthroughs. However, she has not read McLuhan carefully and has missed the point. Print itself, the book, the printing process, the reading habit all have been transformed in the twentieth century under the dominant influence of television

and, later, computers. McLuhan did not say that print had disappeared, merely that it had lost its central cultural influence and was no longer the dominant dynamic. New media force old media to adjust or disappear. Yet she returns to this point, perhaps aware of the simplistic nature of her explanation, for she admits that current myopia about printed materials may not be fully explained by their ubiquity and lack of newsworthiness (ibid., 18). She argues (in terms congenial to both Innis and McLuhan) that the neglect of these topics by intellectual and cultural historians is due to "inevitable modern specialization," and also "the persistence of a venerable philosophical tradition of proud ignorance concerning material and mechanical phenomena, which weakens the history of ideas as a discipline" (ibid., 24). This is McLuhan's point precisely, although she avoids drawing out this implication.

Eisenstein's rhetoric presents a paradox: she is well aware, as her citations of Bacon indicate, that it is necessary for intellectual advance for a figure to expand the historical imagination by linking phenomena normally treated separately so that others may explore more systematically. Yet she fails to apply this observation to McLuhan, otherwise an obvious case in point. Why? Is Bacon historically safe because his century is past? She also agrees with McLuhan that the history of the printing press represents not a gradual evolution but rather a set of revolutionary developments that inaugurate a new cultural era in the history of Western man (ibid., 33).

> As various studies show, historical imagination is required to bridge the gap between the age of scribes and that of the printer.... But before it can be bridged, the gap must be acknowledged, and this acknowledgement, in turn, implies acceptance of discontinuity. Historians have erred in their caution. (ibid.)

As she writes in her critique of Febvre and Martin, "the theme of a major cultural metamorphosis is muffled by the authors' oblique approach. The preface stresses the larger ensemble of transformations within which Gutenberg's invention should be viewed and also presents the shift to print as a mere prologue to later and greater transformations. The new presses, [they] argue, contributed to cultural inertia, and did nothing to speed up the adoption of new theories or knowledge" (ibid., 35).

How does one disprove a thesis of evolutionary or revolutionary change? She concludes: "When dealing with our topic scholars are more likely to err in the direction of understating the change than of overstating it"(ibid., 39). Mostly they evade the issue by not addressing it (ibid.). Now McLuhan comes back into her purview: "Where historians are prone to be over-cautious, others are encouraged to be over-bold" By default, the topic goes into more careless hands. The castle of scholarship, she warns her readers, is vulnerable: "The fifteenth-century 'media revolution' is also of interest to those who cultivate various avant garde fields (communications theory, media analysis and the like) and who scrutinize the current scene without paying much heed to the past" (ibid.). It is time for the historians to rescue their monopoly lest the avant garde have a go at it. However much Eisenstein is distressed by McLuhan's unconventional historiography, he clearly provides an exception to the blindspot with respect to the impact of the printing press that she diagnoses for historians. Consequently, she attempts to demonize him so as to summon all right-thinking historians to get on with the study of the print revolution.

What are the crimes against scholarship committed by *The Gutenberg Galaxy*? First, McLuhan dispenses with chronological sequence and historical context, and variegated developments over 500 years are randomly intermingled and treated as a single event--"most appropriately described as a happening" (ibid., 40). Eisenstein concedes that McLuhan's unconventional format is deliberate; however his "non-linear" presentation "has not inspired confidence in his arguments" (ibid.). His invoking of field theories of modern physics is not credible, she intones, because his "special training" is of Joyce not Einstein. Then she broadens her attack to include modern literary criticism, training in which predisposes the critic against chronological narrative; but the indifference to mundane temporal sequence in McLuhan's work also has "venerable religious antecedents" and "Catholic theology may well be more of an influence than twentieth century physics on recent efforts at understanding media" (ibid., 41). Here she also cites Father Ong. So now McLuhan's religion plays a role in his choice of approach, another strike against him in the camp of scholarship.

McLuhan acknowledged his debts in *The Gutenberg Galaxy* to the available scholarship, yet his innovation was to take this work as point of departure to arrive at unorthodox conclusions. For example, he cites Chaytor (1945), and Febvre (whose 1942 article McLuhan probably did not see, and whose 1958 book with Martin, *L'Apparition du Livre*, translated 1976, he did). Eisenstein refutes Burke's hyperbolic claim that McLuhan took everything from Febvre.[40] She comments on the debt of McLuhan to the annalist school of history, which rejects conventional narrative form, and Febvre's work which she had critiqued just prior to this section. In other words, it is illegitimate for a literary scholar to apply his techniques to history, despite the fact that a non-narrative form may prove appropriate to comprehending discontinuity. Curiously, instead of crediting McLuhan's sources in the arts and literature, Eisenstein accuses him of borrowing from historians. Thus his intellectual production is reframed within a monopoly of knowledge by historians.

Eisenstein argues that McLuhan has selected a poor target for his experimental approach. Why? Because proper historical methods have not yet been tried, and the shift from script to print ignored by conventional historians, historical guidelines "need to be extended rather than undermined"(ibid.,41). Eisenstein's sermonizing on these points is unconvincing for the simple reason that had McLuhan's work not opened up the historical imagination on the topic of the shift from script to print, there would be less opportunity for historians, including herself, to apply their specialized methods to the task. Thus, she reaches the astonishing conclusion that McLuhan has not taken data out of context, "for an adequate context has not yet been supplied" (ibid.). This is the proper task of historians. Yet, despite this, *The Gutenberg Galaxy* performs a useful function "by pointing to a large number of significant issues that cry out for historical investigation and have, as yet, received almost none" (ibid.). In another leap of logic, Eisenstein attempts to blame McLuhanism for deterring the timid historians from pursuing this worthy task because of the fear that their work may be viewed as "McLuhanite."

Eisenstein is ready to remedy the historical neglect of the printing press, a task she accomplishes admirably in her book. However, it is quite possible to appraise McLuhan's contribution as essential in expanding the historical imagination that permits Eisenstein to find her topic, and in fulfilling Bacon's dictum that facts of life not conventionally seen together may profitably be combined in the interests of the advancement of learning. It is also possible to regard McLuhan's contribution as all the more valuable because he follows Innis in generalizing his meditation on the formal dynamics of the life of artefacts to principles that could expand the historical imagination into other inventions. In fact, McLuhan's contribution is to attempt to formulate the process of cultural transformation on the broad canvas of history, not confined to the advent of printing, but stretching from the oral to literate shift, through the hand copied manuscript to printing and on into the electric and electronic age. That Eisenstein cannot grasp this achievement is a function of the specialized focus that her disciplinary identity has conferred upon her, a sort of blinding bias of professional historians. With Eisenstein's rhetoric of intellectual controversy on McLuhan, it becomes apparent that myopia is a necessary and prized condition of the specialist, while the generalist requires a vision of great scope in expanding the thematic and historical imagination.

Havelock's insights are dismissed as obvious: "cursory acquaintance with anthropologists and casual observations of pre-school age children remind us of the gulf between oral and literate cultures" (ibid., 8). It is astonishing how once an important idea has been advanced, it comes to seem obvious to others. Again, the difference between mentalities shaped by reliance on the spoken and written words has been illuminated by Havelock's "suggestive imaginative use of the distinction between oral and literate cultures to illuminate diverse phases of Greek thought". The distinction of McLuhan, and also of Ong, she notes, is that they recognize the difference between scribal and print culture, "which tends to be blurred by arguments which contrast alphabetic with ideographic writing and oral with written transmission but not script with print" (ibid., 9).

Her concern is with a different gulf, more difficult she believes to fathom than that between oral and literate cultures, the gulf which "separates our experience from that of literate elites who relied exclusively on hand-copied texts". Her position on this scribal culture is that "[t]here is nothing analogous in our experience or in that of any living creature within the Western world at present" (ibid., 9). In an unacknowledged reprise of Innis' observations on the bias of communication and difficulty of grasping a residually oral culture before typographic print, which she calls the "scholarly predicament" (ibid., 10), she objects not to McLuhan's breakthroughs, but that McLuhan did not develop his insights in a systematic fashion. Even granting this, it seems she doth protest too much. In fact, her work provides spectacular confirmation of the fertility of the themata opened up once this new horizon of the historical imagination is revealed by Innis, McLuhan, and his associates in the communications history tradition.

Eisenstein conducts her critique in the name of history; however her comments are reminiscent of the sorts of debates that Havelock hints at in classics. Her actual quarrel, for which the diatribe on McLuhan is a prelude, is with other historians who have ignored the significance of the consequences of the printing press and the consequences of "communications and cultural transformation" in early modern Europe. She calls for scepticism, yet also for the necessity of framing theories "in order to come to terms with changes that affected consciousness and identity and hence necessarily engaged human thoughts and feelings". She calls for expansion of the historical scope and customary alignments resulting from exploring "the consequences that came in the wake of the printing press" (ibid., 707). She calls also for "a greater respect for hard facts and material technologies among humanist scholars and intellectual historians; more appreciation of the role played by imponderables and the reality of intangible phenomena among those who investigate socio-economic, political, or institutional changes" which "could, conceivably, lead to more fruitful collaboration between groups of specialists" (ibid.). McLuhan had pointed the way, and Innis would have approved. Perhaps Eisenstein is looking in the

wrong direction. Maybe creative historical insight and cross-fertilization can occur when generalists and specialists learn to communicate with one another.

What have historians ignored? Intellectual and literary historians "have inherited a venerable tradition of proud ignorance of matters material, mechanical, or commercial" (ibid., 706). Eisenstein takes historical in the sense of professional historians, but why? History is neither the sole preserve, nor an exclusive monopoly of knowledge of professional historians. In forgetting this point, she neglects to ask why a Canadian literary scholar and a political economist should glimpse what generations of historians had neglected. To expand memory and collective awareness of connections not seen--a role she approvingly ascribes to Bacon was surely also McLuhan's contribution (ibid., 43).[41] In fact, she argues, in language applicable to McLuhan: "To set forth views that may be invalid can be justified when it paves the way for more educated guesswork based on more empirical evidence" (ibid.,706). She even admits that there may be no way to exclude "imponderables" such as how readers read texts, which since the readers are long gone cannot be measured with precision, but must be taken into account. Thus, speculation is required (ibid.). The best that scholarship can claim is "defining margins of uncertainty with some precision and thereby holding conspiratorial myth-makers at bay" (ibid.). But in the end, these imponderables have to be included in any effort to arrive at working hypotheses as to how things happened as they did, as Eisenstein recognizes. This is indubitably what McLuhan accomplished, the very basis of what I have called his abductive approach to theory, as did Innis, Havelock and the communications history tradition. Eisenstein's work is testimony to that fact.[42]

Should this rhetoric of intellectual controversy from within the emergent tradition succeed in occluding McLuhan's contribution, much would be lost. Ong, as noted, disavows interest in the subject of media, and rejects the term medium, preferring to frame his contribution in terms of the evolution of human consciousness throughout history and the technologizing of the word (1982, 175-78) or the "noetic" processes (1988, 28-30). For her part, Eisenstein has little sympathy with the objectives of communications and

media study--which she considers too "avant garde"--and seeks instead to appropriate the insights possible in this approach for the conventional discipline of history. There is much in McLuhan's copious production to be shared with history and the history of consciousness; however the danger of accepting these proposals lies in the probable loss to the communications history tradition of opportunities to extend McLuhan's often perceptive observations, particularly his diagnosis of mediamorphosis, and his thesis that we are in the midst of a techno-cultural transformation as profound as the previous literate and typographical revolutions. Another obvious danger in following the prescriptions of Ong or Eisenstein is that the subject of media and popular culture and the new literacies and post-print sensibilities engendered by them would be neglected for more respectable inquiry, similar themes merely surfacing under a different guise or excluded altogether. Neither Ong nor Eisenstein adequately addresses the losses resulting from their proposals to abandon the distinctive scope brought to the themata of media, a scope that that animates the communications history tradition. Despite their value, detail, precision and synthetic range, both these authors in the works under discussion remain deeply indebted to the originators of the communications history tradition; these works can be considered partial syntheses in search of a still more visionary future synthesis. Only when McLuhan's contribution is contextualized within the emergent and expansive tradition of communications history and reunited with the work of Innis--and not marginalized as the product of an academic maverick--will it be possible to extend his formulations and avoid these mistakes.

The Historiographers

By the 1980's, the emergent tradition reached a certain maturity and figured in historiographic reflections, notably in the books of Czitrom (1982), Heyer (1988), and Patterson (1990). James Carey's views on Innis and McLuhan from the 1960s largely continued to predominate, and are key influences on Czitrom (1982, xiv; 222 n.13) and Heyer (1988, 126). Patterson (1990) indicates grounds on which this version is vulnerable

(1991, 36-7).[43] Consistent with the rhetoric of inquiry approach in this chapter, no attempt is made to summarize the complete projects of these authors.Each of these narratives will instead be analyzed with a view to elucidating the rhetorical space of the intellectual controversy surrounding McLuhan and McLuhanism, and the way in which these writers from the academic generation following McLuhan's, who share some sympathy with the tradition and are intent on extending it, appraise McLuhan.

Czitrom (1982) presents an intellectual history of modern communication in the United States, with the subtitle "From Morse to McLuhan". Numerous inaccuracies regarding McLuhan mar this otherwise substantive achievement in American history.Here is a partial list.

1. Only by narrowing communications studies drastically and, for example, omitting rhetoric and the concern with the trivium as well as the writing on advertising of the 1940s, can McLuhan, as Czitrom argues, be regarded as coming to communication studies late in his career (1982, 147).

2. McLuhan's work of the 1940s and 1950s, up to *The Mechanical Bride,* cannot be reduced to the observation that it takes as a key referent American technological power (ibid.).

3. There is no evidence that the threat of American media and society to Canadian culture preoccupies the early McLuhan. His satirical and typographically experimental pamphlet, *Counterblast* (1954), a commentary on the Massey Royal Commission report on Canadian culture,[44] indicates his mixed critical disdain and satirical appreciation for American and Canadian popular culture: "The professoriate has turned its back on culture for two hundred years because the high culture of technological society is popular culture and knows no boundaries between high and low" (*Counterblast*,). Elsewhere, he regards popular culture as democratic common culture, the "poor man's orchids" (American Advertising 1947). By contrast, Innis, in his response to the Massey Commission report ("Strategies of Culture" in *Changing Concepts of Time*), seems to disdain popular cultural

expression as he attacks the dangers of American cultural imperialism, a position more congenial to Czitrom.

4. Czitrom's interpretation of both men stresses "the affinities" of their communications writings with American intellectual traditions, and his account celebrates Innis in his later pessimistic criticism of American hegemony. This approach may suit to some degree the case of Innis, who studied at the University of Chicago and was influenced by Veblen, but is inadequate for McLuhan. Futhermore, both men require contextualization within their own national tradition, the mixed American and European influences that shaped their thought, and the trajectory of their own work.

Czitrom adopts McLuhan's reading of Innis' "switch from the consideration of material staples to that of staples of the mind" (1982, 161). He makes the important point against McLuhan's interpretation that Innis' later work differs substantively from Robert Park's linear version of communications history as a progressive march of civilization (ibid.,), capable of generating scientific techniques of reporting and a new objective social science (ibid., 163). McLuhan overemphasized the linkage of Park and Innis while recognizing Innis' distinctive pessimism compared to Park and the progressives. The rhetoric is interesting: Czitrom forgives the later Innis for his dense prose and unfinished theories (ibid., 155-56) in part, one suspects, because Innis' work is easily adapted to an attack on the U.S. marketing machinery and the business of broadcasting, Czitrom's preferred themes (e.g. ibid., 164). Czitrom sums up Innis' complex legacy by noting with approval that his early pursuit of the economic implications of communication "led him to interpret the media from the perspective of a moral critic of modern civilization" (ibid.)

A very different tone, however, is adopted for McLuhan, "a self-proclaimed disciple of Innis" whose adaptation of Innis was "a highly selective and distorted one," whose contribution can be reduced to the powerful attraction of the "rhetoric of the technological sublime," and who along with Innis espoused a variety of technological determinism (ibid., 148): "At McLuhan's hands the subtleties of 'Inniscence' disappeared into the mists of mythology" (ibid., 165). Echoing Carey, Czitrom asks rhetorically "How does one

logically attack a court jester, a man who declares the end of linear logic?" (ibid.). Begrudgingly Czitrom appraises McLuhan's signal contribution to instilling "an urgent awareness of the media environment as a basic force shaping the modern sensibility" (ibid.). Czitrom also acknowledges McLuhan's seminal contribution to the expansion of the late twentieth century thematic imagination and his historically effective influence when he discusses the difficulty of writing about McLuhan within a post-McLuhan intellectual milieu. Unwilling to grasp the reasons behind McLuhan's insistence on applying aesthetic techniques to the study of communications, woefully evident in his discussion of McLuhan's early literary criticism, Czitrom proceeds to ignore a major aspect of McLuhan's positive extension of Innis' work, regarding McLuhan's aesthetic doctrines instead as the cause of his "narrow reading of Innis" (ibid., 173). Seemingly a long way from the charge of technological determinism, Czitrom again repeats Carey and argues, on very shaky grounds, that McLuhan's mature theory "rests on a new version of the Christian myth" before restating Carey's argument for stressing the discontinuity between Innis and McLuhan (ibid., 174-75).

Unable to deny the *tour de force* of *The Gutenberg Galaxy*, Czitrom next reduces McLuhan's search for the dynamics of the life of media forms and insight that, under conditions of electronic technology, the central nervous system is extended, to a "psychological and biological principle at the center of a rigid technological determinism" (ibid., 177). How could Czitrom miss the interactive dynamism in McLuhan's theories? Even the quotation used by Czitrom to support this contention contradicts his conclusion. It is drawn from McLuhan's reinterpretation of the Narcissus myth and phenomenon of narcissus-narcosis or trance induced by extensions into media and technologies, a decidedly dynamic and non-rigid pattern which uses a myth to focus on the relationships we make with our technologies, which then remake us, whereupon the process begins all over again in a "continuous embrace of our technology in daily use"(ibid.). Again, as with his failure to take seriously McLuhan's aesthetic strategies, Czitrom is unwilling to recognize the dynamism in this theory of techno-cultural transformation, so he restates

received academic opinion and labels McLuhan's approach "technological naturalism" because of McLuhan's emphasis on the transformations brought about through ever-changing relationships with media as environments (ibid., 178). McLuhan's insistence that he diagnoses the environment in which we live unconsciously so that we might become conscious of it is ignored. Instead of asking how, for example, such dynamics of perceptual metamorphosis might have cultural consequences, and thus how the conjunction of McLuhan and Innis may illuminate his subject of "media and the American mind", Czitrom avoids the issue. Czitrom's problem, echoing critiques by Theall and Miller, is that McLuhan did not offer a complete social theory. Instead Czitrom judges that he contributed "a trick of vision" and "substituted mythology for history by ignoring or distorting the real historical and sociological factors that shaped media institutions" (ibid., 180). Perhaps he might reread *Understanding Media* and *The Gutenberg Galaxy*, but more likely Czitrom's use of "real" as modifier holds the clue to his rejection of all evidence in McLuhan's texts against these opinions. (My general rebuttal appeared in Chapter 1). The bias of Czitrom's appraisal and motive for his rhetoric become apparent when he returns to the respective merits of Innis and McLuhan: "Stripped from the public McLuhan were any Innisian vestiges of moral and political concern with American media imperialism, Canadian resistance, the power of advertising" (ibid., 181).

From this point, Czitrom's rhetoric grows more strident and more reminiscent of Carey's contribution to the forging of a negative academic consensus on McLuhan: McLuhan the apologist for corporate interests that controlled television, the founder of a "McLuhan cult on Madison Avenue," the result of a college professor being embraced by advertisers thrilled to be told they were creative artists." He writes: " McLuhan's frequent appearances on television helped turn him from knowledgeable sage into a mere pop idol grateful for the chance to glorify the medium giving him so much free exposure" (ibid., 182). There is no evidence to substantiate this gratuitous rhetoric. Still, Czitrom announced in his book--and ironically underscored the point in his title presumably for the alliterative recognition factor and to sell more books--that McLuhan is, with Innis, an

initiator of the most radical and elaborate American media theory: from Morse to McLuhan. So, he draws back from invective and observes that one need not accept McLuhan's personal mythology or corporate ties "to acknowledge his contribution to a general shift in perception in American culture" (ibid.). After his vicious and ill informed critique, why would one bother?

Czitrom's conclusion confirms that the ambivalence and hostility towards McLuhan and his contribution persist. Yet it simultaneously establishes McLuhan's central importance to any rethinking of communications in the expansive manner of communications history. What marks Czitrom's work as within the tradition (and not solely an historiographic commentary) is its attention to the intersection of communications and history, and its concern will tracing a hidden and untold story of the linkage between new media and developments in popular life and and intellectual innovation. Beyond his obvious distaste as historian and social scientist for the aesthetic issues that preoccupied McLuhan, perhaps a fuller account of McLuhan's significance could not be written until television broadcasting itself was suffering eclipse. Czitrom's media histories end with radio, which is in fact where Innis's work stopped. Arguably, without factoring in the social, political, economic--in short cultural-developments surrounding the television medium, possibly one cannot fully appreciate or understand McLuhan's contribution.[45]

Paul Heyer expands the intellectual history of the communications history tradition by arguing that this subject area initiated by Innis and McLuhan has an unacknowledged background. Noting that McLuhan's work inspired his own interest, which was later nurtured by Carpenter, Heyer traces the question of communications history, and in particular a Western interest in the question of language, orality and literacy, back to the eighteenth century. Most of the sources named by Heyer are uncited or cited in passing by Innis and McLuhan, so Heyer's is a bold effort to recontextualize the emergence tradition within the sweep of Western intellectual history. Thus Heyer provides a valuable broadening of communications history to incorporate philosophical, anthropological, and

archaeological writers. On McLuhan, Heyer adopts Carey's dismissive appraisal: "Does McLuhan then belong in the select company of scholars such as Childe, Mumford, and Innis, who have studied key aspects of the history of civilization? Absolutely. Such a pantheon should have a clown prince" (1988, 140)

In recounting McLuhan's background, Heyer adopts the tone of ridicule common in the rhetoric of intellectual controversy against McLuhan. Snide interjections pepper his account. *The Gutenberg Galaxy* is "a work many consider to be his most impressive--achievement--although others have sarcastically noted that this honour should be reserved for his reputation" (ibid.). The style of *The Mechanical Bride* is reminiscent of "the infamous mosaic approach" employed later (ibid., 129). He shares Carpenter's view on McLuhan's later fame: "In his later works some might say that rather than escaping the worst effects of media, McLuhan succumbed to them, with his unabashed proselytization and work as a consultant to industrialists and politicians" (ibid.). Heyer has his own agenda in evaluating McLuhan, noting of *The Mechanical Bride* that it is "a work so close to being social science which deals with the cultural present". He follows Theall's (1971) critique in chiding McLuhan for not drawing on the founding figures of social science (ibid., 128). Ignoring the many sources cited in *The Mechanical Bride*, in favour of ones not there, Heyer adds: "To proclaim this vision is to be a direct heir, although McLuhan does not acknowledge it, to the tradition of Rousseau" (ibid., 130).

Heyer ignores McLuhan's subtle concern with the implications of communications history for causality, notably his references (e.g. Bunge 1979) to formal causality as an alternative to conventional efficient causality, which McLuhan argued was a product of printed literacy. These themes would suit Heyer's important points about the unacknowledged tradition, as might a discourse on the trivium, which would take the tradition back still further, as McLuhan did. Instead, Heyer presents a shallow critique of "McLuhanacy" by which he intends McLuhan's "insistence on championing a causal technological determinism grounded in media." In this common tactic, Heyer repeats the critics without a full appreciation of the target of criticism (ibid., 131-32). A whole

reading of *The Gutenberg Galaxy* in context, as demonstrated in Chapter 1, indicates that McLuhan cannot be said to ignore social, historical, and institutional concerns as maintained by Heyer (ibid., 132). Furthermore, Heyer ignores McLuhan's explanation that he is emphasizing media as a factor in history because it has been neglected except, as McLuhan notes, by Innis, and his satirical statement of the obvious point that there may be other factors at work in historical change.

Heyer is nontheless sympathetic to the achievements of *Understanding Media*, and writes that many of McLuhan's critics denounced *Understanding Media*, "blissfully unaware that their own stylistic accomplishments were being fuelled by the ingenious perceptions they were disavowing" and that "many have never written as well or as insightfully since moving on to other issues" (ibid., 135). He concludes with the tantalizing hypothesis (to be pursued in Chapter 3): "Perhaps it is an unintentional high tribute to McLuhan's coolness, in this sense something that compels involved creative participation for resolution, that it should be so capable of inspiring eloquent arguments of completely diametric persuasion"(ibid.).[46] Heyer believes that *Understanding Media* is an important book, despite its shortcomings, and "complete avoidance of [McLuhan's] position creates a situation whereby important considerations inevitably arise in the gap between the new non-McLuhan view and the one it tries to sidestep" (ibid., 139)

Conclusion

The story of McLuhan and his relationship to the communications history tradition, as told from within the horizon disclosed by the emergent tradition, has been vivisected in the rhetoric of intellectual controversy of two historiographer-commentators, Daniel Czitrom (1982) and Paul Heyer (1988). An interpretation of McLuhan's relationship with Innis along lines suggested by Graeme Patterson's *History and Communications* (1990) is

preferred, with qualifications suggested by Arthur Kroker's (1984) linkage of the work of Innis and McLuhan within the context of a Canadian tradition of thinking about technology, and the thesis that their work represents variations on a theme and theory of communications as techno-cultural transformation.

In the main, historian Graeme Patterson's (1990) appraisal of the relationship between the work of Innis and McLuhan and their interpretation of history presents a balanced start to evaluating the tradition of communications history within which McLuhan's work is best illuminated. Patterson restates the chief contribution of the two to historiography, and, with minor reservations indicated above in the discussion of Innis, his views are compatible with the emphasis that my interpretation in Chapter 1 places on the theory of techno-cultural transformation and contribution to cultural hermeneutics. As Chapter 2's discussion of the conjunction of Innis, McLuhan and Havelock indicates, techno-cultural hermeneutics once again stands in for the major theoretical achievement of the Toronto School and its lasting legacy. All three men can be seen thus to contribute to the understanding of the dynamics of understanding through experience with media and technologies (including a technology such as the phonetic alphabet, or literacy). In light of the evidence, McLuhan must be considered as more than a rhetorical promoter or popularizer for this emergent tradition, despite the significance of this role, his debt to many, and Havelock's understandable gratitude for McLuhan's promotion of his work (ibid., 42; 1986, 17). McLuhan's work provides the hub for the emergent tradition in that, as argued above, his texts neither systematize nor summarize, but rather, juxtapose across disciplines, open up the field, expand the thematic and historical imagination, and generate insights and enduring metaphors.

As a figure of intellectual history, McLuhan recognized and linked the shared themes of a network of sources, including Harold Innis, Eric Havelock, Siegfried Giedion, Ernst Gombrich, William Ivins, James Joyce, the French Symbolists, Walter Ong, Edward Hall, Edmund Carpenter, and many others into a powerful and unexhausted account of the significance of technologies and communications media in historical and contemporary

cultural change. The scope of his theory of mediamorphosis, his diagnosis of master historical patterns and the core dynamics of techno-cultural transformation (as discussed in Chapter 1) enable later researchers to attend to specialized topics with greater precision. In the absence of such a generalized vision, it is not possible to glimpse, much less refine, a pattern that connects--or to test the possibility--because the necessary myopia of most specialists and hostility toward generalists biases them against revisioning the imaginative picture of the whole. Even where inspiration arises from the work of a creative generalist, as with the case of Eisenstein, that inspiration seems suspect. As McLuhan would put this, he and Innis worked with the interplay of figure and ground, as opposed to figure detached from ground. Unquestionably the work of Innis and McLuhan is speculative, abductive and preliminary, leaving much work for later specialists; yet it offers an original and valuable revisioning of the historical process as a whole.

Subsequent syntheses of core themes (Eisenstein 1979; Ong 1982) demonstrate that McLuhan's controversial formulation of communications history was at once indebted to and more influential than the work of Innis. The Toronto School of Communications was as original and unorthodox as were its pioneering instigators. Yet full appreciation of the significance and legacy of the communications history tradition has been occluded by the explosive rhetoric of rejection against McLuhan. Illustrations were canvassed above, and in Chapter 3 the phases and counter-themata of this rhetoric of response will be traced.

Chapter 3: The Paradox of Response to McLuhan and his Work

> "You are familiar with academic timidity and respectability. You are taking your academic life in your hands when you write about Innis and McLuhan. You must be a fearless character."
>
> Letter to James Carey, 1974 (*Letters* 1987, 492).

Framework

The enduring ambivalence audible and visible in the rhetoric of response surrounding McLuhan and his ideas constitutes the paradox framing this zone. Key collections of textual responses from the Catalyst Phase captured this mixed opinion in their titles: Stearn's *McLuhan Hot & Cool* (1967), Rosenthal's *McLuhan Pro & Con* (1969).[1] The question framing this zone of evidence is how McLuhan's ideas persisted despite what I call the forging of a negative academic consensus on his work. Selecting from the vast archive of commentary on McLuhan,[2] I have produced this rhetoric of inquiry examination of the paradox of reception in two ways: by presenting a mosaic-style wideshot of the popular and academic reaction, organized into the phases of response from 1940-1996; and by developing a close-up thematic analysis of the shift in the rhetoric from 1965-1975, at which point academic rejection of McLuhan and his ideas came to predominate.

The conclusion of Chapter 3 is that this negative academic consensus has shaped and deformed most subsequent understanding of McLuhan's ideas. This conclusion was introduced in Chapter 2's discussion of the historiographers of the communications history tradition, and will be tested in Chapter 4, which explores the paradox of McLuhan's legacy and attempts to substantiate the argument that this rhetorical deformation has impoverished the field of communications. Chapter 3 reports on the basis for this conclusion by revisiting the rhetoric of intellectual controversy and the forging of the negative academic consensus, and by demonstrating that, despite this consensus, McLuhan's ideas paradoxically continued to circulate in academic works, among various artists, and practitioners, and through popular media. These ideas had a lasting influence, particularly on members of the so-called television (or baby boom)

generation which came of intellectual age during his celebrity; significantly, his ideas are now reaching a new generation, which is growing up with computers. The argument in this Chapter and the next is that the ferocity of the controversy within the academy *and* the media contributed to the wide but shallow dissemination and perpetual fragmentation of McLuhan's ideas. The heat has thus far obscured the light.

The concept of fragmentation is central to this argument, and what I mean by it is that such influence as McLuhan has unquestionably exerted has been decontextualized from both his work and from the communications history tradition emerging from the Toronto School of Communications, within which his work is most meaningful.[3] Here is where Chapter 3 fits into the larger argument: it seeks to explore and to explain how the rhetoric of intellectual controversy positioned McLuhan and his ideas within the rhetorical space of debates over media, culture and technologies. To accomplish this task I have found it necessary to return to the origins of the controversy in the Catalyst Phase of the 1960s, when his ideas first caused a sensation and then to trace the patterns of response into the mid 1970s in order to discover how the Molten Phase of ambivalent response hardened into the phase of Split Opinions, including the negative academic consensus. In order to ground the arguments to follow in Chapter 4, I have extended the review further on into the 1990s, and thus traced the larger context of the phases of response to the McLuhan controversy.

The event of McLuhan's catalytic appearance as a public intellectual in 1965, his ties with television and popular culture in the public and academic mind, the saturation coverage by electronic and print media, and the volatile responses he provoked, signal that deep cultural conflicts are nested in this controversy. Let me state clearly for those readers who may believe that McLuhan and his challenging prose simply received the academic reception that he and it deserved: it is not common to encounter the intense hostility and equally intense enthusiasm that characterised and, to some degree, continues to characterise response to his work and persona. This paradox requires explanation.[4]

Richard Bernstein (1983, 20-25; 51-61) has noted a milder pattern of contradictory response to the ideas expressed by Thomas Kuhn in *The Structure of Scientific Revolutions*, published in 1962, the same year as *The Gutenberg Galaxy*. Kuhn was another author and very different sort of intellectual who encountered academic ambivalence and hostility (if not to the same degree) and whose text and ideas crossed over from the academy into popular life. The resonant term, "paradigm," and the phrase, "paradigm shift," touched many intellectual nerves, and became pervasive within academic and popular writing and discussion. Despite their numerous differences,[5] it seems plausible that McLuhan's role as catalyst and that of Kuhn sparked their respective controversies for similar reasons. Each advanced a major and--if right--profoundly subversive insight into how knowledge changes historically. Kuhn's thesis of revolutionary paradigm shifts sparked an ongoing debate regarding historical epistemology within the natural sciences; McLuhan's sweeping theory of techno-cultural transformation, or mediamorphosis, opened up an ongoing debate over historical change and epistemology for all of cultural life. These claims threatened conventional wisdom regarding how knowledge was and is constructed, and by implication, threw into question the nature of reason and truth. Doubtless these questions and their answers will be contested forever within the Anglo-American-Canadian human sciences. Yet Kuhn and McLuhan posed major threats because their compelling works not only questioned received wisdom regarding the construction of truth, but also attracted unprecedented public attention to the challenges to the status quo that they respectively advanced.[6] These men became academic celebrities.

The difference between these two men also sheds light on the outcome of the controversies. Kuhn's appeal lay in his presentation of clear and historically weighty support for his conclusions, whereas McLuhan's appeal lay in his erudite and artistic mosaic style and shockingly original thesis. Each proposed a theory of revolution, however Kuhn asked the reader to follow his logic to its end, and later systematically qualified the many uses of his conceptual innovation "paradigm" in response to his critics (1970, 174-98); McLuhan, on the other hand, rhetorically invited the reader to

participate in the process of insight and conclusion, and insisted on defining his innovation, "media," expansively without regard for his critics' concerns (e.g., "Laws of Media" 1975). The fundamental thesis of each man could be simplified; yet the scope and the nuances of their work read whole, in the context of their respective textwork of sources, held much of the interest and staying power for the ideas advanced. Equally significant, the appeal to an audience outside the academy was welcomed by McLuhan, and of interest, but of no serious consequence for Kuhn. Unlike Kuhn, during the 1960s, at the peak of his fame, McLuhan's unorthodox style and refusal to play by the rules of conventional academic conduct brought him into direct collision with the academy, rendering his threat all the more subversive. The stakes were high, opinions volatile, and opposition inevitable. It is not surprising then that the outraged rhetoric of rejection in response to the threats perceived in each case should reflect *inter alia* the attempt to enforce the proper rules of conduct expected from an academic, and should reveal in the process both the nature of those expectations and the assumptions about what counts as truth, knowledge, and the proper methods of arriving at them. Nor is it surprising, given the contrast between McLuhan's expansive scope and defiance and Kuhn's narrowing scope and compliance, that the outcome of these controversies should differ, with McLuhan's fate in the hands of later academic and public commentators, and Kuhn's reputation made and maintained within the clerisy of the academy.

There is profuse evidence to demonstrate that most accounts of McLuhan's ideas and significance from intellectuals inside and outside the academy suffered from unscholarly rhetorical tactics, such as distortion, condescension, reductionism, and ad hominem attack. Typical is this comment from the cultural critic, Bernard Rosenberg, which was first published in the heat of the battle in 1968:

> Many, like Marshall McLuhan and his followers, have managed to swallow the nausea they once felt [at mass culture]. At peace in the electric wonderland, they celebrate what used to sicken them. After years of courtship, and growing but unrequited love, McLuhan married the Mechanical Bride whose every gesture used to repel him. He moves and anachronistically writes in a psychedelic delirium comparable only to that of Timothy Leary. ...Whole pages from that dated medium of Gutenberg's

> by which they so often go on expressing themselves, could be transposed from one author's work to the other's. Here then we confront the champions of two debilitating and medically hazardous drugs: TV and LSD. (Rosenberg and White 1971, 3-4)

Note first the identification of McLuhan with television, only one of the many artefacts he dissected under his capacious concept of "media." Note also the use of the contemptuous term, "McLuhanacy," coined in 1965 by Ben Lieberman (Stearn 1967, 221) and repeated as a standard epithet by later academics (e.g., Fekete 1977; Rutherford 1990). To his academic contemporaries, the more his celebrity grew, the more hostile the rhetoric of response became. Through repetition, this rhetoric of intellectual controversy attained the status of received wisdom; for many who followed, McLuhan was remembered as McLuhanism, a curious amalgam of slogans and controversy, while his works went unread.

Some of these developments clearly had their roots in the tumultuous 1960s. However it would be a mistake to dismiss the McLuhan phenomenon as a fad of that era (e.g., Ferguson 1991). McLuhan's fame occurred in the 1960s, but he was not of the sixties. As some recognized at the time (e.g., Compton [Rosenthal] 108; Wolfe [Stearn] 1967, 35), the sources for his ideas stretched back to the rise of rhetoric and the trivium in classical Greece. Furthermore, his distinctive formulations have outlasted and, as will be demonstrated below, have entered a Revival Phase in the early to mid 1990s. He will be remembered long after most of his critics are forgotten; yet the cultural fact of criticism and controversy will forever be associated with his contribution. Chapter 3 emphatically does not pretend to present a complete history of the 1960s, but instead works against that distinctive ground while remaining focused on McLuhan and McLuhanism as figure, meaning the man, his work, and the response he and it received. In this way the case study of the rhetoric of intellectual controversy surrounding McLuhan as presented here is intended as a contribution to the larger rhetoric of inquiry project.[7]

Although directly relevant, Kuhn's remarkable scholarship cannot be applied to an exploration of the McLuhan controversy because there is as yet no singular paradigm

established for the interdisciplinary study of communications, which is the wider field within which the legacy of McLuhan and the Toronto School of Communications find a primary home in the 1990s.[8] This is not to say that such paradigmatic diversity is a negative feature, nor that the field of communications lacks orthodoxy and received wisdom; only that various approaches compete for the allegiances of communications scholars, including the emergent tradition of communications history inspired by Innis and McLuhan. Exemplifying this observation is a special issue of the *Journal of Communications* aptly entitled "Ferment in the Field" which appeared in 1983 and which included 35 essays from 10 countries.[9] So far, it seems fair to characterize the communications field as in a state of permanent ferment. The importance of acknowledging this point from the outset, and of including this journal issue within the zone of evidence, is that it highlights McLuhan's role and that of his critics within an interdiscipline (Littlejohn 1979) in the process of coming to terms with a mixed heritage from the humanities, social and natural sciences.

Another factor is highlighted once the non-unitary nature of the interdiscipline of communications is admitted. External events will exert a greater influence on the development of the field and its selection of topics than would be the case for a discipline engaged in the practice of "normal" science within a self-referential paradigm cut off from the outside world. Thus, in addition to expected theoretical and methodological quarrels, there will be practical and political or ideological dimensions to debates over the nature of the field of communications and the proper conduct of communications research. The study of communications participates in the hermeneutic recognition that, as Charles Taylor (1985, 15) puts it in another context, interpretation is essential to explanation in the human sciences.

To unpack the McLuhan controversy, I have found it helpful to draw upon the work of several scholars, but chiefly to adapt Gerald Holton's methods from the history of the natural sciences to this case study within the history of the human sciences. Holton studies the process of scientific controversy as it moves through phases from the nascent moment of discovery and assertion through response and resolution to aftermath. Two

key modifications are required. The first stems from the previous observations on paradigms. The boundaries of communications are unusually permeable and the competition for scholarly allegiance may resemble what in ordinary language would be called a "turf war" (or attempted "monopoly of knowledge," in Innis' terminology) as established disciplines, ranging from history to literary criticism to sociology, lay claim to the subject matter of "communications." Furthermore, a process of "pantheon-building" is also in evidence. By this term I intend the collective identification of the founders or ancestors of the preferred tradition into which communications is to be placed, as key figures are pressed into service as legitimizing precursors for strands of the recombinant interdiscipline of communications (Robinson 1987, Hardt 1992). These manoeuvres, turf wars, and pantheon-building, are illustrated repeatedly in the rhetoric of response to McLuhan, and also in the document "Ferment in the Field." (e.g. *Journal of Communication* 1983, 33). The second modification to Holton's approach consists in taking the operating assumption that the public and media responses have relevance for the resolution and aftermath of a communications controversy, in a manner unthinkable for the natural sciences. Showing how this is so is part of the contribution of Chapter 3's rhetoric of inquiry approach to unravelling the paradox of ambivalent response to McLuhan. A brief digression on basic terms will establish the working vocabulary for this approach.

Intellectual life can be viewed along an imaginary spectrum from more specialized to more generalist. Within the human sciences, this imaginary spectrum ranges from academics who operate within the university or research institution and disseminate their work to specialized audiences, to literary intellectuals or more colloquially, the literati who publish in "little magazines" for tiny audiences, to public intellectuals who disseminate their work in publications and electronic media designed for elite, specialized audiences or the general public. Journalists and other mediaworkers who are employed by the communications media design their work to reach more general audiences, and can be considered "popular" intellectuals. The lines are often blurred, and sometimes one figure may play several roles, as for example the late Carl Sagan, who

was both a noted scientist employed within the academy and also a popularizer of science for general audiences. On the audience (or reception) side of this model, a reciprocal spectrum is apparent, from narrow elite and specialized audiences at the academic end, who tend to participate in both the production and consumption process, due to the publish or perish academic dictum, to more general public audiences, who are less likely to participate directly in cultural knowledge production. The "popular" media consumed by general audiences are widely available and easily accessible without formal prior training in specific knowledge, skills, or literacies. Thus the specialized audiences are more homogeneous, the general audiences more diverse. These terms will be adopted without further comment as they seem self evident. It should be noted that there is no widely accepted and non-pejorative system for describing this relational system associating producers and their consuming audiences along the spectrum from academic to public to popular intellectuals.[10] These simplified distinctions are necessary for two major reasons. First, the implications of the McLuhan controversy raise major questions regarding the relationship between academic and other intellectuals, and their connections with the academy, the media, and the public. Second, McLuhan's work has arguably been open to misinterpretation and the tactics of rejection because it has been dismissed by academics as popular, or McLuhan himself has been discredited on this ground. It is therefore necessary to inquire further into the nature of this transgression because of McLuhan's status as a "promotional" intellectual (Wernick 1991).

Chapter 3's excavation of the rhetoric of intellectual controversy explores this spectrum of response and interprets it in a fresh light. Unlike most accounts, here no prior assumption is made regarding the absolute validity of rhetorical modes "proper" to understanding media. As employed here, the terms "public" and "popular" blur conventional categories and refer to the democratic cultural nexus of contemporary non-academic intellectual life from mass media to games to avant garde happenings, from art to advertising to architecture, from music to museums, all of which thrive outside and sometimes inside the universities. McLuhan had argued as early as *The Mechanical Bride* (1951) for the now well accepted (e.g., Crane 1992) interrelationship of the life of

all cultural forms, an interrelationship that dissolves the rigid hierarchies that once separated high and low culture. He argued persistently, and in a manner threatening to the gatekeepers of official culture and knowledge, that in terms of education or shaping influences, the resources of the commercial mass media had already dwarfed the puny curricula mustered by the schools and universities. Popular culture increasingly meant media culture, a point McLuhan phrased again in 1970 in a compressed reprise of *The Mechanical Bride*, entitled *Culture is Our Business*. His attention to popular culture, a move made earlier in the arts by outlaw artist Wyndham Lewis, along with his eventual conviction that ads were an artform--"the cave art of the twentieth century "--further alienated conservatives, high culture neo-Marxists, and the academicians. It is necessary to expand Holton's analysis to permit exploration of these questions.

To develop his analysis, Holton (1973, 1991) studied prominent individual scientists whose work and persona became linked with significant challenges to conventional wisdom, including Einstein and Bohr. In his later writing, Holton (1991) has emphasized rhetoric as a central component of the process whereby the individual dissenter from an orthodox paradigm packages his or her unorthodox ideas so as to persuade a target audience. Rhetoric can also be productively treated as a central component of the process of response. Holton has acknowledged that his methods are reimported into the history of science from literature and anthropology,[11] and include close reading of public and private texts, thematic analysis, and interpretation of the factors that contribute to the rhetorical patterns of assertion and response. He argues that despite what many philosophers of natural science would have us believe, disputes over fundamental conceptions of the sort underpinning the shifting patterns of organized understanding and practice that Kuhn named paradigms, are not adjudicated solely by means of empirical evidence or analytical reasoning. Instead, he has concluded that a third axis, which he calls thematic commitments comes into play. These are the conscious or unconscious allegiances to basic assumptions about how the things in dispute work, or should work, and about the proper manner for reaching and asserting conclusions about these disputed matters. Holton has used the term thematic commitments broadly,[12] a

practice I follow. An ancient example of a thematic dyad would be a preference for an explanation favouring themata of continuity or discontinuity. Value positions, aesthetics, normative ideals, ideologies, philosophies, religion, professional practices, gender, cultural backgrounds, national origins and locations, all and more may underlie or constitute thematic commitments, which can be traced in the assertions of original ideas, and reactions to such assertions.

Holton's approach works against the grain of the scientific text, which, since the seventeenth century, has been constructed so as to explicitly disavow rhetoric in favour of what Pascal called "the inevitability of the text." Scientists are trained to conceal all traces of the possibly serendipitous process of discovery in their assertion and justification.[13] In addition to excluding rhetoric, Kuhn has demonstrated conclusively that scientists are professionally trained to ignore history, except as a tale of the progressive struggle to achieve truth in the present by eliminating the errors and superstitions of the past. Holton reads past these concealments to study the patterns of response in the texts of those antagonists whose opinions and formulations contribute directly to shaping the intellectual reception for the new ideas. Holton (1991) identifies thematic commitments by analysing the rhetoric of assertion and subsequent rhetoric of rejection or appropriation that mark the particular controversy under examination, and thus is able to diagnose the prevailing (and conflicting) assumptions about proper scientific conduct and concepts.

Holton conducts his analyses in order to probe what he calls the "rhetorical space" in which intellectual controversy occurs. Holton's agonistic and theatrical model is particularly well suited to study of the response to an individual intellectual such as McLuhan who was influential without giving rise to a formally organized school, and who left copious materials, textual and oral, for later scrutiny. McLuhan did not inhabit for long the physical haunts of the anointed intellectuals, which for English speakers in the postwar period were limited to major U.S. and British centres in New York, London, and the chief British and U.S. university towns. One of the threats he seemed to pose was that, to the astonishment of his critics, this outsider from the margins reached a mixed

popular and intellectual audience outside the clerisy of literary scholars. The media he diagnosed helped him do this. McLuhan was especially vilified for his frequent media appearances and obvious willingness to cooperate with agents who wished to help him promote his ideas to any audience willing to listen, including corporate and popular audiences. He was playing by new rules, and reaching audiences directly by new means that bypassed academic gatekeepers. These themes of marginality, media dissemination, and non-academic audiences will recur throughout this chapter.

Holton's key analytic categories also express a temporal dimension, which I will discuss in the genetic terms of the phases of rhetorical response to McLuhan and his ideas. Holton holds that the event of the "rhetoric of assertion" or original statement of the innovative ideas is followed by the "rhetoric of appropriation and rejection" whereby critics and sympathizers respond to the assertions by incorporating or rejecting the challenges to the status quo. To these categories he adds his key concept of thematic commitments. Where the first Chapter presented my challenge to the reduction of McLuhan's work to "technological determinism" and formulated a counter-interpretation of McLuhan's rhetoric of assertion as his development of a theory of mediamorphosis, or techno-cultural transformation, here I will map the rhetoric of response onto the phases of McLuhan's intellectual production and rhetoric of assertion, so as to produce an account of the rhetorical space in which the controversy and its aftermath developed over time. This overview provides the backdrop for discussion of the forging of the negative academic consensus and traces its aftermath.

This chapter is thus more concerned with rhetoric than sociology. Based on analysis of the phases of response to McLuhan's work, I have selected the texts of four critics to represent the expositions of the rhetoric of rejection on McLuhan. These texts and their authors can be considered major architects of a negative academic consensus because their respective critiques have been cited most frequently as authoritative by later commentators. Generally well written, easy to read, and conventionally organized--everything in short that most academic critics found lacking in McLuhan's texts--these works presented significant counter thematic attacks on McLuhan and his ideas. These

texts (and not their authors' subsequent writings on McLuhan) have often substituted for McLuhan's provocative originals, and their counter-themata have endured alongside and, for many critics, have eclipsed McLuhan's assertions. Qualifying under this criteria are texts by James Carey (1967), Donald Theall (1971), Jonathan Miller (1971), and Raymond Williams (1974). The inclusion of one non-academic public intellectual, Miller--a cultural critic, media personality, playwright, and medical doctor--is justified on the basis of his selection by Frank Kermode to author a book on McLuhan within the prestigious "Fontana Modern Masters" series.[14] To shed further light on the network of affiliations and the special importance in the forging of the negative consensus of ideologically-motivated attacks on McLuhan, the work of a "fifth man" will be discussed: John Fekete who was at the time a student of communications,[15] and who obtained his Masters under Theall at McGill and his doctorate under Williams at Cambridge. Fekete's 1972 doctoral thesis (published in 1977) became an important critical text for McLuhan's academic neo-Marxist antagonists from the "new left" (e.g., Kellner 1989, 132).[16]

Although unquestionably McLuhan had been written off by many academics earlier, the date, 1975, is selected for several reasons. Papers by Carey and Theall reappraising McLuhan and his connection with Innis were published together in that year (Robinson and Theall 1975). Despite their differing critiques, by this stage the two had found numerous points of agreement. In tone, these papers, unlike the authors' earlier works, discussed McLuhan's rejection not as a prospective challenge, but rather in the past tense, as a foregone conclusion. That same year Williams published an afterword to his reissued book, *Communications,* which cited McLuhan's three major works in a short list of significant works on media (*Mechanical Bride, The Gutenberg Galaxy, Understanding Media*), despite Williams' 1974 critique. McLuhan seemed noteworthy, but only for the historical value of the work up to 1964. These publications mark the year 1975 as the date by which the negative academic consensus had been forged and McLuhan's threat apparently contained. Another factor in the designation of 1975 consists in McLuhan's growing recognition during the early 1970s that his work was

under serious attack. Always wary of the academy despite his membership within it, his flippantly arrogant and light-hearted responses of the 1960s, including the (in)famous response to his critics, "I don't explain, I explore," gave way during this time to a more anguished response. In 1971, he wrote to his friend Claude Bissell: "Three years ago the ploy was 'McLuhan was a late starter.' Now the ploy is 'he is an early finisher'" (*Letters* 1987, 430). He recruited his collaborator Barrington Nevitt in an effort to respond to these attacks. In 1975, he tried a fresh tack in his effort to reach his colleagues in the academy with publication of the article, "Laws of the Media," an early version of his "new science". But it was too late, and his assertions could not penetrate the rhetorical wall of rejection and indifference. He searched for explanations as to why his ideas appeared to provoke such exaggerated hostility, particularly in the 1970s when he recognized that the forging of a negative consensus was underway. His letters amply illustrate this point (*Letters*, 425-26; 439-40; 491; 505-06).

Within the sub-period of the McLuhan controversy that I have labelled the forging of the negative academic consensus, Chapter 3 focuses attention on the formulation and circulation of key counter-themata which have been traced by identifying the rhetorical devices by which McLuhan's critics preferred to characterize his position. After extensive analysis of the rhetoric of rejection and appropriation, I have identified and named the four major strands of the counter-themata devised by McLuhan's critics against him and his work. The discussion will flow more smoothly if a summary of these conclusions is presented in advance:

1. *Technological determinist.* The primary tactic in the rhetoric of rejection consisted in the reduction of McLuhan's ideas about techno-cultural transformation, emblematised by the signature phrase "the medium is the message" to a single counter-theme, promoted independently first by Richard Kostelanetz and subsequently by James Carey in essays originally published in 1967: "technological determinism." The origins of this term are obscure,[17] but as applied to the problematics of popular or mass culture debates, the earliest widely circulated mention I have found is B. Rosenberg's formulation of what he called a "tentative technological determinism" which he found implicit in the hypothesis

that "modern technology is the necessary and sufficient cause of mass culture" (Rosenberg and White 1957, 12). Under this covering term his critics charged that McLuhan had reduced the dynamics of human history to the monocausal factor of unmediated technological impacts. Many critics who have never read McLuhan nonetheless repeat this influential charge. Considered as an extreme or "hard" variant of technological determinism, and despite his protests, McLuhan's work is typically dismissed as antagonistic towards human and political self-determination and autonomy. Because he insisted repeatedly that indignation and premature value judgement were poor substitutes for investigation into the effects of techno-cultural transformations, and because he maintained an ambivalent, satirical, and often optimistic view of the potential of electronic technology, McLuhan was accused repeatedly of glorifying what he described.

2. *Global village utopian millennial optimist.* McLuhan's formulation that, under electronic conditions, the world becomes a "global village," was characterized in often condescending rhetoric under the counter-themata of global optimism, technological utopianism, and millenarianism. His acceptance of Wyndham Lewis' view that one can only predict the future by understanding the present clearly, was seized upon as "futurism" and characterized as pop prophecy. His insistence that values must be set aside so as to examine current developments with clarity of mind was interpreted by his critics variously as a rejection of all values, the embrace of positivism or the adoption of a hidden agenda. Again, McLuhan's protests that he had never said that village residents--under oral or electronic conditions--would always get along harmoniously were ignored. Typically, McLuhan's status as a convert to Roman Catholicism was introduced--directly or elliptically--in support of this counter-themata, and as a way of suggesting a hidden agenda. Another strand to this counter-themata was the characterization of McLuhanism as a myth, or of McLuhan as purveyor of a myth, for instance an electronic myth. A key architect of this counter-theme, James Carey, labelled McLuhan's work "the rhetoric of the electrical sublime." Upon closer inspection, this myth became for his critics an ideological position which amounted to a secular religion.

3. *Enemy of the book and print culture.* McLuhan's assertion that, following the introduction and assimilation of electric and electronic media, mechanized print and all of Western culture built upon it were in eclipse, prompted his critics to formulate the counter-themata that cast McLuhan as an enemy of the book and print-related values. Especially threatening was his thesis that Western rationality itself might be imperiled because of the decline of the dominant literate technology upon which it was based, the marriage of the phonetic alphabet and the printing press. Critics took delight in the paradox that McLuhan had published his ideas about the obsolescence of the book in books, no matter how non-linear the format, while bemoaning his mosaic-style juxtapositions. His assertions that the electronic media had displaced the Gutenberg Galaxy seemed to condone popular culture and to threaten high culture. Again, McLuhan's refusal to articulate a moral position on the observations he made fuelled the critique of his position. Most vociferous on this counter-themata were McLuhan's critics among educators and certain public intellectuals (e.g., Rosenthal and Winn), many of whom simply misread his argument to mean that books were disappearing, instead of obsolescent in their current form and in the process of transformation under electric and electronic conditions. Eisenstein (1979) made the same careless mistake.

4. *Rogue scholar.* Another highly significant counter-themata with numerous strands can be identified in the cautionary narrative or morality tale that was constructed around the persona of McLuhan as what I will call a "rogue scholar," The myth of McLuhan, once exposed by his critics, revealed a con man, trickster or charlatan, engaged in perpetrating what Miller (1971, 132) bluntly called, a "gigantic system of lies." McLuhan's experimental texts, deliberate refusal to abide by the conventions of orthodox scholarship, claim to be one of the few who comprehended what was going on during this turbulent period, and success at promoting his ideas to an audience outside the academy, motivated this rhetoric of rejection, which amounted to a tactic of demonization. As discussed in Chapter 1, he delighted in "putting on" an audience as one would clothing or a mask, when writing for, speaking to or performing before them; he believed that one put on a different mask to involve and thus reach British and

American audiences, something a Canadian who had lived and worked in both places could do (*Letters*, 449).[18]

Once he became a media celebrity, his credentials as a Cambridge Ph.D. in English literature, his publications, honours, and full-time university teaching position (albeit at a Roman Catholic college) could not shield McLuhan from the scorn of a hostile and anxious academy. The use of quasi-religious language, and the often veiled assertion that McLuhan, a Roman Catholic convert, was a guru of some sort of cult with disciples, was commonly introduced to support this point. His repeated declarations that genuine study required a suspension of value judgements was viewed with extreme suspicion, and into this "values vacuum" his critics projected their thematic commitments. Abhorrent to his critics on the left was his supposed espousal of "conservative" values and conviction that Marx had it all wrong (Theall 1971; Williams 1974; Fekete 1977). Conservatives for their part rejected McLuhan equally strenuously for upsetting tradition and for his association with new non-print media and popular culture, including barbaric television and advertising (West 1969). Academics found it reprehensible that one of their fellows should become a celebrity, unthinkable that he might charge for speeches and advise corporations, politicians, and others in power, and verging on treason to depart from the gloomy pessimism and sermonizing that marked most academic responses to popular culture, new media, and their creators and consumers. The appeal of his work for anti-establishment students, young faculty, artists, and mediaworkers further undermined his legitimacy within the academy.

In its rhetorical narrative on McLuhan as rogue scholar, the academy directly and indirectly articulated the rules of conduct for proper scholarship, and devised fables and folklore to warn unwary graduate students and others who might be seduced into McLuhanese. In particular, his rejection of specialism and endorsement of generalism and insight into the "big picture" struck at the heart of the academic *modus operandi*. Yet simultaneously, paradoxically, and despite the negative consensus within the academy, McLuhan's originality and boldness in forcefully placing media on the agenda for public debate as a factor in historical techno-cultural transformation were widely

recognized. His ideas and themes were appropriated by his critics in a scenario that might be thought of as academic cannibalism. Eisenstein's (1979) rhetoric illustrates this tactic of paradoxical rejection and appropriation. Literary critic, Hugh Kenner, who was as guilty as anyone of this appropriation, commented that absorbing McLuhan's major idea on media (the medium is the message) was like hearing about gravity: once heard, it became so obvious that one need not read the book (Rosenthal 1969, 24). But in not reading the books, one missed the context and McLuhan's many other ideas were overlooked. The patent reduction of the nuances and complexity of McLuhan's work by his fellow academics permanently distorted and misrepresented his work.

Holton's approach assists this case study of the rhetoric of intellectual controversy in several further respects. By making these thematic commitments and counter-commitments explicit, the rhetorical space in which the McLuhan controversy occurred can be reassessed. In Holton's analysis, the rhetorical space is the "place" where themata meet counter-themata (Holton 1991, 176). A literal reading of the content of the protagonists' contributions cannot fully illuminate these controversies: yet identifying the counter-themata used to reject McLuhan and his work permits insight into the larger question of the academic neglect of media and technologies as crucial transformative factors in human history. Later researchers and theorists who wished to extend McLuhan's insights operated in the shadow of this powerful rhetoric of rejection to the detriment of communications and the human sciences. Holton's performative model provides a valuable analytic agenda by directing attention to the interplay between the rhetoric of assertion and the counter rhetoric of appropriation/rejection, and stressing the active and constructive or destructive nature of these practices. Holton's work demonstrates the function of the rhetoric of scientists, whereby it serves to enforce the community's definition of proper scientific and, in the McLuhan case, also academic and intellectual practice; in the result, insight is possible into the structuring aspects of rhetoric where words are used to do things and prevent other things from being done.

The issue addressed here is neither the familiar one as to whether or not McLuhan's intentions as author matter, nor the sociological question of how the official networks

operated to exclude him. Rather the issue is twofold: first how McLuhan's innovative and iconoclastic ideas were absorbed and rejected by his audiences as evident in the rhetoric of their texts; second, how the official academy responded to the threat to its power and authority when the ideas of an "author" succeeded at bypassing conventional gatekeepers via popular publications and other communications media so as to reach audiences directly.

The work of Bruno Latour in *Science in Action (1987)* is instructive in unravelling this paradox of McLuhan's reception. Making a strong case for the importance of reception (and indirectly supporting Holton's idea of thematic commitments), Latour has observed that, "the fate of what we say and make is in later users' hands" (1987, 29).[19] For example, as mentioned, McLuhan's contribution was characterized influentially by Richard Kostelanetz and James Carey as "technological determinism." McLuhan's plausible protest to Kostelanetz (*McLuhan Explosion* 1968, 148), that he was instead an "organic autonomist" sounding the alarm so as to promote understanding and enable individuals to avoid becoming slaves of their technologies, did not prevail.

One of McLuhan's favourite analogies for the questionable wisdom of orthodox knowledge communities was the case of Pasteur's assertion of the existence of invisible bacteria, an assertion that initially his colleagues found ridiculous, with tragic human consequences. Holton holds that charting the "rhetorical space" in which major intellectual disagreements occur sheds light on the worldview--or thematic commitments collectively, consciously and unconsciously held--of the protagonists, and that these commitments are factors in the ways in which such intellectual controversies unfold and are resolved. Shared thematic commitments also underlie monopolies of knowledge, and may change due to internal or external events. As the case of Pasteur shows, collegial rejection does not always mean that the ideas asserted are wrong. This rhetoric of inquiry approach to intellectual controversy helps to explain why some controversies appear to have unexpected outcomes, or why such debates often appear after the fact to have had little to do with the initial assertion, but much to do with the climate of reception for the dissenting ideas as shaped by antagonists. Thus when further events occur, or the

intellectual climate changes, the reception may also change. Kuhn can be read as skilfully (if controversially) demonstrating that sometimes the reaction to new ideas constitutes refutation of the unthinkable discoveries by those imprisoned within established frameworks of thinking.[20]

To account for the paradox of reception for McLuhan's ideas, it is necessary to recognize the unprecedented growth in the role and importance of mass communications media. Media and knowledge workers disseminate ideas via books, periodicals, and electronic media to an increasingly wide and educated public, including of course themselves. They travel by plane or car to easily reach once remote destinations. Such reciprocal dissemination and access to ideas throws into question the status and function of conventional intellectual gatekeepers, and after the mid-twentieth century, brings the academy into conflict with the media over power and authority. At this point, the argument is that McLuhan's threat lay in his direct challenge to the academy and his announcement (as early as 1951) that print-oriented academics faced obsolescence because they had already been out-manoeuvred in their educational role by commercial and electronic media for the hearts and minds of their students and the public. The McLuhan controversy demonstrates that the academy has lost its monopoly of knowledge on understanding the media, its authority over it, and the ability to exclude media from the curriculum of approved subject matter. One might say that the academy has been surrounded and infiltrated, with immense consequences for intellectual life. On this argument, McLuhan as celebrity public and academic intellectual may unwittingly have been a highly visible casualty in a much larger battle. For some, the outcome of the McLuhan controversy signifies that the academy has conveyed a firm message to those who would defy its conventions. Alternatively, others conclude that reappraisal of the McLuhan challenge indicates the need for the academy to rethink its role and its response to the shifting role of the intellectual as academic and/or public media figure within the changing environment in which cultural production takes place. Either this or risk obsolescence. McLuhan would, of course, argue that the very media environments in which we extend ourselves and in which we live, work, and form professional

communities shape our thematic commitments. So long as we remain unconscious of these environments that we have made, their effects will remain silent, invisible, and inexorable. The continued circulation of McLuhan's ideas by the media of communications, and by a generation exposed when children to the medium of television, and when coming of age to the first original theorist of the television medium, among other factors, suggests a rhetorical process of cultural knowledge production and reception that differs from the conventional model of invisible colleges or authoritative networks established by and for official scholars and first described in the seventeenth century.

The hypothesis that emerges then is that McLuhan as persona and intellectual was caught up in a battle for power and authority between the academy and the media. The waning influence of the academy under electronic conditions is evident in the career of McLuhan's ideas, which were widely diffused despite official excommunication. Simultaneously, testimony to the academy's lingering grasp on the power to legitimate and authorize ideas is evident in the fragmentation of McLuhan's contribution, the decontextualization of his work as a whole, and the belated reaction to McLuhan's invitation to take up media study in a dramatically different manner. These issues matter for many reasons, but here chiefly because the academic critics' positioning and characterization of McLuhan's ideas and his significance reveal not only deep suspicion of media, popular culture, and the public, but also reveal assumptions about the proper conduct of academic inquiry into the effects of media and technologies, assumptions that may prevent adequate understanding of media and block significant innovations that will help the human sciences better to comprehend the powers of media effects. This analysis of the rhetoric of intellectual controversy surrounding McLuhan and his ideas raises serious questions about the academy's willingness to remain intellectually open to fresh approaches to new media and communications study. This reappraisal of McLuhan suggests that disentangling the heat from the light on McLuhan and recognizing his contribution to the communications history tradition can provide a point of departure for the questioning required to generate and consolidate such innovative approaches. Only

tentative hypotheses can be offered on these broad questions; however in the conclusion I will draw upon certain parallels with the case of the controversy surrounding the nineteenth-century pioneering sociologist, Georg Simmel, in an attempt to focus one aspect of these observations.

The final contribution of Chapter 3 then is to expand the rhetoric of inquiry project by factoring into it the tensions between the popular media and the official academy. Recall from above that Holton holds that major controversies over fundamentals are not resolved (even in the natural sciences) solely by deductive or analytic means; rather thematic commitments come into play. Latour argues that all successful scientific contributions are extensions of the networks of people, practices, and ideas that produced them (1987, 249). In this sense, McLuhan's artistically-inspired invitation to the user or reader of his work to participate in making meaning left his texts open to interpretation, while his lack of a school, marginal status in Canada at a Roman Catholic college, and maverick status within the academy left him vulnerable to academic rejection. The ferocity of the rhetoric that forged the negative academic consensus, the media interest in controversy, and the broad spectrum of response provoked by McLuhanism have all contributed to the permanent fragmentation of McLuhan's ideas; yet excommunication from the academy did not eliminate McLuhan's historically effective influence. Now let us examine more closely this enduring paradox of response.

Phases of Response

This section maps the phases of response to McLuhan's work onto the phases of intellectual production discussed in Chapter 1. The objective is to situate the response to McLuhan within the context of the career of his ideas. (See Illustration 10.) The survey covers the period 1940 to 1995. This section presents a non-exhaustive overview, while the next section treats the forging of the negative academic consensus in detail.

McLuhan advanced his key themata during the course of a productive, creative, and controversial career spanning more than forty years. Publication of *Understanding Media: The Extensions of Man* (1964) in the U.S. in 1965 marked the point when

Illustration 10

Phases of Response in McLuhan Controversy

DATE	INTELLECTUAL	RESPONSE
1930s-1940s	EARLY	MINOR RECOGNITION
1950s	EXPLORATIONS	
1960s	CATALYST 1964 *Understanding Media* 1965 *Understanding Media* (U.S.Edition)	MOLTEN
1970s	LAST DECADE	SPLIT OPINIONS 1975 Negative Academic Consensus Forged
1980s	AFTERLIFE DECADE	DISMISSAL AND REAPPRAISAL
1990s	REVIVAL	REVIVAL

McLuhan's work found an audience beyond the academy, and attracted widespread attention across disciplinary borders within the academy. At this time, his earlier work, in *The Gutenberg Galaxy* (1962), *The Mechanical Bride* (1951), and *Explorations*, found a wider audience.

Minor Recognition: Early to Explorations periods 1940-1960

Beginning in the late 1930s, McLuhan became an obscure intellectual, known to some for his promising doctoral work, and for articles published in small literary journals. His thesis on Thomas Nashe and rediscovery of the ancient quarrels among the arts of the trivium attracted the attention of leading lights of U.S. literary criticism (Jeffrey/McAninch, Theall interview 1989). McLuhan's initial book *The Mechanical Bride* of 1951--despite being one of the first to take popular culture seriously--attracted scant attention and few reviews. During the 1950s, his published work in *Explorations*, with its small but international audience, his speeches to conferences and English teachers, and his activities as a founder of the Ford Foundation Seminar on Culture and Communications at the University of Toronto (1953-1955), attracted increasing attention to his promise. *Explorations* remains a rare achievement, due to the cross-disciplinary nature of its stimulating contributions and due to the willingness of well-known authors including David Riesman, Jean Piaget, and Robert Graves to publish with those lesser known. McLuhan's work gained sufficient notice that he was selected to conduct a U.S. government-sponsored study of the new media and education, which was issued as the Report on *Project in Understanding the New Media* in 1960.

British literary critic and contemporary, John Wain, described his reaction to McLuhan's work during the Minor Recognition Period:

> Most critics make an *aperçu* serve them, as theme, for a whole essay, or even a whole book; McLuhan provided an *aperçu* in virtually every line, and if they were not all equally good, if indeed some of them were unconvincing to the point of absurdity, well, there was always the interest of seeing what the man would say next; and there was a large, gusty breeze of fresh air blowing through the whole enterprise. (Sanderson and MacDonald 1988, 115)

Molten Period: The Catalyst Phase of the 1960s

Midway through the Catalyst Phase of production, McLuhan's work exploded out of obscurity and into "McLuhanism" at the same time that the controversy surrounding his assertions grew heated. "Canada's intellectual comet" became one of the best known academics on the planet. This process of the making of a celebrity intellectual began among academics and public intellectuals with the publication of *The Gutenberg Galaxy* in 1962. This book was reviewed and noticed primarily in Britain (e.g. *Times Literary Supplement* 1962), in rare U.S. educational journals such as *Educational Leadership* (1963 [Crosby and Bond 1968, 39]), and in Canada, where it won the Governor General's Award for Nonfiction. *The Gutenberg Galaxy* was not released in the U.S. until 1965. *Understanding Media* was published in 1964, and appeared in paperback in the U.S. in 1965. This book became a best-seller and crossed over to a popular audience. At this time McLuhan became one of a minuscule number of intellectual celebrities whose ideas circulated inside and outside the academy throughout the world, beginning in the English-speaking western countries.[21] The year 1965 clearly marked the beginning of McLuhan's unofficial dual status as insider and outsider to the academy, object of ambivalence and subject of debate. He became a public intellectual. McLuhan's celebrity arose in large degree from his newsworthiness as a man with something to say about a topic familiar to everyone, expressed in an original style, at once erudite and evocative, in a manner incomprehensible to some and inspirational to others. He was a cool commentator who claimed to know what was happening in a hot period. By adopting an unprecedently broad definition of media, interweaving popular and high culture in his presentation, and presenting a narrative account of television's significance in the electric revolution that threatened to overturn Gutenberg's printing press, he became an object of media fascination and frustration, and a target of academic outrage.

The question in this section is twofold: What promise did insightful commentators of the Molten Period find in his ideas? What threat did he appear to pose? The objective of this section is to present highlights in brief from some of the commentaries on McLuhan by a range of intellectuals who assessed his significance and found peril and promise in

his ideas. This sampling sets up the ground for examining the shift from the Molten Period of response to the forging of the negative academic consensus and Split Opinions Phase.

The response during the Catalyst Phase can be called " Molten" because opinions across the intellectual spectrum were fluid and volatile, for and against, hot and cool. In their published and broadcast responses at the time, an astonishing range of critics denounced McLuhan as a threat, viewed his fame as symptomatic of the declining times, and dismissed his ideas as the work of a madman, a charlatan, or both. Others equally strenuously hailed his promise as a poetic genius, a pop metaphysician of the media, argued that it mattered whether or not his predictions were right, believed that the public, media, and artistic enthusiasm for his ideas signified their relevance for and resonance with a cultural revolution in the making, and praised the boldness of his prophetic vision. Sympathizers and detractors alike usually agreed that he had focused attention on the importance of media, communications, and technology, even if they quarrelled over what he meant and the value of all other aspects of his work.

The reception for McLuhan's work was mixed from the outset, with popular response often negative. McLuhan's ideas and texts seemed sufficiently unorthodox that perplexed editors were unsure how to react: What was he saying? Was he putting everyone on? Who should he be compared to? What tradition did he fit into? Richard Kostelanetz recalled that his initial favourable reviews of *Understanding Media* went unpublished in both the U.K. and U.S. (Kostelanetz [Crosby and Bond 1968, 99]). The first review of *Understanding Media* in *Time Magazine* (1964), entitled "Blowing Hot and Cold," deemed the book "fuzzy-minded, lacking in perspective, low in definition and data, redundant, and contemptuous of logical sequence" (ibid., 44) Later in Canada, journalist and cultural critic Robert Fulford leapt to the attack, crowing: "We've been saying far worse things about him here in Canada for a long time" (Olson 1981, 136). Whether pro or con, once it became the self-proclaimed duty of a cultural critic to render judgement on his work, McLuhanism provided a common topic on which journalists and public intellectuals (such as Tom Wolfe, Dwight MacDonald, and Richard Kostelanetz), literary

and cultural critics (including George Steiner, Susan Sontag, and Harold Rosenberg), advertising executives and media practioners (e.g., Howard Gossage, Barry Day, and Jerry Mander), newcomers to the academy (such as James Carey and Donald Theall) and elder statesmen (such as Kenneth Burke) could react within the same pages or on the same programs (e.g., Miller, Steiner, and Forge on BBC Radio, Steam 1967, 234).

These debates and responses circulated in the academic, trade, and popular press and were made readily accessible to a wide readership in two collections, Steam's *McLuhan Hot & Cool* and Rosenthal's *McLuhan Pro & Con*. *McLuhan Hot & Cool*, presented a comprehensive multilogue on the controversy that incorporated McLuhan's work, that of his critics, and his responses to his critics. *McLuhan Pro & Con*, published the following year, was more negative in tone. Raymond Rosenthal, editor of *McLuhan Pro & Con*, questioned and disparaged the "myth" of McLuhan in his preface, whereas Gerald Steam, editor of *McLuhan Hot & Cool*, interviewed McLuhan and orchestrated a McLuhanesque rebuttal at the end of the collection that captures McLuhan's performative bias for the playful oral over the fixed written word. The McLuhan controversy also served as a serious and "with-it" way to teach composition and rhetoric, notably in Crosby and Bond's *The McLuhan Explosion: A Case Book in McLuhan and Understanding Media* (1968), thus disseminating fragments of the original and a spectrum of commentary to a wide audience of students and educators, as well as to the public through the libraries. Other educational books appeared on the topic of mass media featuring fragments of McLuhan's ideas (e.g., Irving 1962; Casty 1968). In 1969, *Playboy Magazine* published a sensitively edited and lengthy interview which again featured the oral flow so congenial to McLuhan's thinking process, and so influential in disseminating his ideas to and beyond the academy and literati. The hit TV show *Laugh In* brought McLuhan as pop icon into North American living rooms with Henry Gibson's rhythmic gag line "Marshall McLuhan, what are you doin'?"

Magazines, as Everette Dennis (1974) later noted, were crucial to the circulation of McLuhan's ideas in North America. The mass media, including *Time* and *Newsweek* (where he appeared on the cover in 1967), and the so-called class media, such as *The*

New Yorker, ran numerous articles, notably a critical yet sympathetic review by cultural critic, Harold Rosenberg, in 1965. That essay and a second by celebrated "new journalist," Tom Wolfe, also published that year in the New York *Herald Tribune*, represented defining moments in launching McLuhanism as a popular cultural phenomenon. McLuhan was immortalized by Wolfe with the question that caught attention, and marked McLuhan's borderline stature for the academy as celebrity intellectual: "Suppose he *is* what he sounds like, the most important thinker since Newton, Darwin, Freud, Einstein and Pavlov--studs of the intelligentsia game--suppose he *is* the oracle of the modern times--*what if he is right?*" (Rosenthal 1969, 31-32). Since the reader was presumed to be somehow democratically involved in deciding whether or not he was right, and the academics were dismissed as old fogeys who had not bothered to investigate the impacts of the media, despite the fact that such media as cars and TV operated right under their noses, the perception of McLuhan's threat grew within the academy. Tom Wolfe's prose captured the mood of the Molten Phase of response, and marked another sort of moment, when the journalist and public intellectual writing for an educated audience throws off deference and passes judgement on academic significance:

> But, all right, he may have missed the mark on this or that, but McLuhan will remain a major figure in the social sciences if for no other reason than that he has opened up the whole subject of the way the new technologies are changing people's thinking, reactions, life styles, everything.... Sociologists and physiologists have done practically nothing on the subject.... Not even with cars! Much less with television, radio, computers--McLuhan comes on like the only man to reach a huge, hitherto--unknown planet or something, and there is so much ground to cover and so little time, all this unknown ground, mothering earthquake, swallowing everybody up and they don't even know it. That is the way McLuhan thinks of it, and he exasperates. (Stearn 1967, 43-44)

This article also influenced the image of McLuhan as a borderline academic who held appeal for corporations and advertising executives. Wolfe described the behind-the-scenes making of McLuhanism as a marketing and intellectual phenomenon by the San

Francisco ad agency guru, Howard Gossage, and his partner, Gerald Feigen. Gossage became known in the U.S. *inter alia* as the "discoverer" of McLuhan, his advisor on practical matters, such as how much to charge corporations for speaking engagements, and also as a sympathizer who helped explain his arcane but brilliant sayings to a general public (Gossage 1995).[22] Others reject this interpretation, as Wolfe and Gossage seem to have later, instead agreeing with John Culkin's assessment: "...it was in no way the 'packaging of a star' type of thing which the later mythology would often prefer to interpret it as. Both Gossage and Feigen disclaimed any such causality and they were right. They were merely pointing to a star which was already well above the horizon" (Sanderson and MacDonald 1989, 102).

Celebrity status was conferred on McLuhan as an intellectual phenomenon in 1965, peaked between 1967 and 1969, and then declined. Senior former journalist and lecturer, Everette Dennis[23] (1974, 39), accurately observed that McLuhan's media celebrity waned after 1968 following his departure from New York City, where he had been the controversial recipient of the 1967-1968 Albert Schweitzer Chair at Fordham University, and return to Toronto. In the inevitable rise and fall cycle of celebrity, Professor Arnold Rockman was already speculating in 1968 (in *Encounter*) on whether McLuhanism as a movement represented a fashion or a revolution in thought. He concluded that it was a revolution. Once away from the New York media, McLuhan moved off the main stage.

While McLuhan's fame grew, the reaction among academics and public intellectuals became increasingly hostile and dismissive. The media, always interested in controversy, fostered this genuine uproar. For instance, Benjamin De Mott is likely the unnamed critic (referred to by Hugh Kenner [1969, 23]) who allegedly was commissioned by Esquire Magazine in 1966 to write an essay, "Against McLuhan." De Mott's rhetoric was typical of the times, as in his essay of this title (Stearn 1967, 241) where he states that, "the favored method of organization [of *The Gutenberg Galaxy* and *Understanding Media*] has a bit too much in common with that of an impresario squirrel."
De Mott concludes:

> In sum, give it all over, is the message. Give over self-doubt, self-torment, self-hatred. Give over politics. Give over conscience. Relax, go soft and complacent, accept your subliminal perfectibility.

This, according to de Mott, is the terrifying message of "the new king of Popthink." For all the nit picking regarding McLuhan's artistically-motivated use of evidence, for most of his critics inside and outside the academy, systematic counter-evidence or alternative explanation, much less comprehension, was rarer than a compelling turn of counter-phrase.

Most academics responded negatively from the outset. British sociologist Tom Nairn articulated this stance in his essay, "McLuhanism: the Myth of Our Time" (Rosenthal, 140): "The difficulties of interpreting Marshall McLuhan are notorious. Academics hate him, ad men love him, most people feel he is perversely and uncomfortably important." Elsewhere on the spectrum of intellectual life, initial response was often enthusiastic. Cultural critics found deep meaning in McLuhan. His attention to the relationship between forms of electronic media and the transformation of sensibility seemed symptomatic of widespread changes taking place within the arts and culture. Susan Sontag, for example, included McLuhan in an array of intellectuals including Nietzsche, Wittgenstein, Buckminister Fuller, Artaud, Barthes, Siegfried Giedion, and others whose texts illuminated an emergent sensibility and new cultural alignment no longer based on the literary work as its model product (Stearn 1967, 253). She argued that the current notion of culture itself required reexamination given the transformative conditions that had promoted the emergence of this new sensibility (ibid.). Key to this new sensibility were two factors prominent in McLuhan's work: the breakdown of the division between high and low art forms, and an openness to popular and everyday life forms. Harold Rosenberg placed *Understanding Media* within "that wide channel of cultural criticism of the twentieth century that includes writers like T.S. Eliot, Oswald Spengler, F.R. Leavis, David Riesman, Hannah Arendt" (ibid., 196). Rosenberg saw clearly that McLuhan was diagnosing the metamorphosis of the print-reading individualist under the bombardment of all his senses by new electronic media, beginning with the telegraph. He saw also that, of all the "crisis philosophers", McLuhan was distinctive in that he

discerned discontinuity in the current period, yet refused to see decline, and instead found transition (ibid.). Also distinctively, McLuhan welcomed popular culture on its own terms (ibid., 197). Rosenberg disapproved of McLuhan's theory of mediamorphosis, which he succinctly grasped, and warned: "[McLuhan's] drama of history is a crude pageant whose inner meaning is man's metamorphosis through the media" (ibid., 201). While Rosenberg found McLuhan refreshing as an individual writer, he believed that should a school of cultural or media analysis arise out of his work, it would suffer from deficiencies (ibid., 202). George Steiner compared McLuhan to Blake, stressing the oracular and inspired poetic quality of his prose and vision. Despite the later hardening of his attitude against McLuhan, Steiner included his critical essay on McLuhan in a collection on "Masters of Modern Thought," and insisted that McLuhan's experimentation with stylistic form was essential to demonstrate his argument that the medium is the message.

Tom Wolfe placed McLuhan in a lofty intellectual pantheon alongside Newton, Freud, Einstein, and Pavlov, but believed that much of his genuine appeal to the artistic world arose, like Freud's earlier appeal in North America, from his erudite allusions and obvious familiarity with the cultural legacy of the West. The intellectual who could encompass ancient Greek rhetoric, James Joyce, and strip clubs seemed, to Wolfe, quite possibly a man for the turbulent times. As for the public intellectuals, the arbiters of official taste, whom Wolfe calls "the standard old-line romantic-reactionary literati of New York," Wolfe predicted accurately that their reaction to McLuhan would be to recoil and to want to attack him (Stearn 1967, 42). Dwight MacDonald, celebrated for his attacks on middlebrow and popular culture, attacked not only the ideas but the man; but again, McLuhan was in good company. "Compared to Mr. McLuhan", MacDonald writes, "Spengler is cautious and Toynbee positively pedantic" (204). MacDonald continues, and in his rhetoric patronizingly spells out the rules of the intellectual and academic game that he believes McLuhan has violated in *Understanding Media*:

> If he had written, instead of a long book, a long article for some scholarly journal, setting forth his ideas clearly--and once--Mr. McLuhan might have produced an important little work, as Frederick Jackson Turner did

> in 1893 with his famous essay on the frontier in American history. At the worst, it would have been provocative, stimulating, maybe even seminal. And readable. But of course he wrote the book because he couldn't write the article. Like those tribesmen of the Golden Age, his mind-set doesn't make for either precision or brevity. (Stearn 1967, 205).

Arthur Schlesinger, Jr. saw a type of social history and theory in McLuhan's work. He perceived, perceptively as it turned out, that the neo-Marxists would find in McLuhan a rival to their analysis of the inevitable engines of history. McLuhan was explicit in attacking Marx, but what Schlesinger noted was that he replaced production with communication as an agency of historical change. On the con side, the neo-Marxists were swift to pick up the challenge. Sidney Finkelstein, for example, in his book *Sense and Nonsense of McLuhan* (1968), contrasted "McLuhanese History vs. Real History." The ideological attacks on McLuhan proliferated from all sides. The self-declared conservative educator George P. Elliott responded to Wolfe's question by observing: "McLuhan's teaching is radical, new, capable of moving people to social action. If he is wrong, it matters" (Stearn 1967, 77-78). This was the perceived threat. Other educators believed that McLuhan had opened up a debate on issues too important to be ignored. The texts that incorporated his works, such as Crosby and Bond's *The McLuhan Explosion* (1968), were designed to present relevant material to students, while using the controversy itself to teach critical thinking about the nature of argument.

Measuring the impact of a twentieth-century intellectual defies quantification. The weight of evidence indicates that McLuhan's ideas were especially well-received among creative producers, those in search of insights to carry out their work in the midst of profound and often dislocating cultural change. McLuhan's ideas resonated for creators and knowledge workers from all backgrounds, visual and conceptual artists, media or advertising workers, musicians, and designers of new technologies.[24] These groups and individuals were less concerned about whether or not they could understand all that McLuhan was saying and more interested in applying his radical thinking about technology and media to their projects. McLuhan was well known for his conviction that the new media required artists to fathom their possibility and meaning. Those artists and

practitioners who applied McLuhan's insights to their work came to understand him by incorporating him. Take as exemplary this description of McLuhan's impact by the sound engineer and producer, Tony Schwartz, in *The Resonant Chord* (1974):

> In the early sixties I discovered the work of Marshall McLuhan. The pop culture that developed around McLuhan, and the guru status accorded him has, unfortunately, clouded the extraordinary contribution he has made to communication theory. McLuhan's argument that people can approach a medium from totally different sensory bases allowed me to focus clearly on how I had been working all along. I realized that I approached sound from an auditory base, while the rest of the advertising industry was structuring sound communication from a written, printed base. (1974, xiv)

Many such accounts of direct and even life-altering influences surfaced in Marchand's 1989 biography, still more in the 1990s Revival Period (Sanderson and MacDonald 1989; Nevitt and McLuhan 1994). During this Molten Period, McLuhan became a favourite among radicals of all persuasions. New York's *East Village Other* applied McLuhan's concepts to a new form of newspaper, and created McLuhan Megillah, a multimedia play form. The counter-cultural new left, distinct from the humourless and orthodox neo-Marxists, found him inspiring, and the Yippies espoused his thought. John Cage set it to music; composer Murray Schafer was inspired by McLuhan in his studies of the soundscape and to write *The Tuning of the World*; McLuhan's friend, Glenn Gould, played with McLuhan's concepts to make sense of his own complex process of creation and decisions about performance (Page 1984; Theberge 1986); Timothy Leary invented his famous slogan, "tune in, turn on, drop out", based on a suggestion from McLuhan. His influence was felt in new arts, such as video (Nam June Paik), new technologies, like personal computing (Alan Kay; Ted Nelson), and by early explorers of virtual reality and the internet, later recounted by the pioneers of these new media techno-arts to chronicler participants Stewart Brand (1983) and Howard Rheingold (1987).

The mass media also circulated McLuhan as icon and idea, in sound and mind bites. Plays on his signature phrases--the medium is the message and the global village--became the media's rhetorical commonplaces. Enthusiasm for McLuhan's work was

expressed by many media practitioners. McLuhan's insights were adopted by the creators of political ad campaigns, including Joe McGinnis of the presidential campaign (White 1968) and Tony Schwartz (1974). By their sheer pervasiveness and scope, McLuhan's ideas became historically effective. Fragments of his texts became part of wider debates over media and the changing techno-cultural environment. McLuhan's work provided an opportunity for playful yet serious critical commentaries, which, as Heyer (1988) noted later, attained a quality which some of the critics never again reached. But while some were putting these ideas to work, others were ensuring that it would be decades before these contested concepts--if attached to the name McLuhan--could find a hearing within the academy.

Split Opinions: The Last Decade of the 1970s

McLuhan's work of the 1970s (in *Take Today*, *From Cliché to Archetype*, *Culture is Our Business*, and numerous articles) reached a limited audience. There were many reasons, among them: the erudition his work required for comprehension, his deliberate use of juxtaposition and other literary and artistic techniques which easily tax the resources of an audience. He seemed too glib for the intellectuals, too arcane for the populace, too popular or unscholarly for the academics. Everette Dennis (1974) traced the rise and fall of McLuhan as a public symbol and concluded that he had in effect lost his audience because he was not clearly focused on a narrow set of clear ideas. The ironic aspect of this commentary is that McLuhan's work had always possessed this scope and breadth so foreign to market-oriented targeting. Perhaps more accurately his influence lingered, but it had become invisible, and he had lost the immediate attention of most of the numerous audiences across the intellectual spectrum who had taken notice, all making sense or taking offence based on different aspects of his work. The times had shifted, and his ideas had continued to expand, not to contract. Upon receiving a copy of Dennis' article from the popular culture historian, Marshall Fishwick, McLuhan responded in a 1974 letter with his interpretation of events:

> Apropos my sudden rise to prominence in the 60's, it happened with the dropout TV generation who were happy to discover the rage which my stuff produced in the academic bosom and to associate themselves with me on that account. Now that the TV generation is squaring up again, they no longer feel the same satisfaction in zapping the establishment via McLuhan. McLuhan continues to engender academic rage while the TV kids are running for cover. (*Letters* 1987, 506)

Robert Fulford retrospectively summed up this shift in response: "Celebrity stains whatever it touches, and he had more celebrity than any other professor in recent decades...Later when some of the intellectuals who were enthralled by his work decided they had been wrong, and people in the media inevitably grew tired of him, the anti-McLuhan reaction was as astonishing as his popularity had been" (1991, 4).

During the Split Opinion Period of response in the 1970s, reactions diverged in a manner different from the ambivalence of the earlier Molten Period. The rhetoric of this period among public intellectuals is best captured by Lewis Mumford in *The Myth of the Machine* (1970), a revision of his pioneering and optimistic outlook in *Technics and Civilization* (1934). McLuhan's position is caricatured in Mumford's portrait, and he emerges as a supporter of mankind's total surrender to a pseudo-life, whether through "constant bombardment of meaningless messages" that "massage the tribal mind" (1970, 227), in his "trancelike vaticinations" and "electronic phantasmagoria" (ibid., 293), or unwitting participation in an "electronically induced mass psychosis" (ibid., 294). Bombastic in the manner of the juvenile cracker barrel philosopher style of the U.S. populist (e.g. ibid., 297; 304), Mumford casts McLuhan as the enemy of the book, supporter of "total cultural dissolution" and of "tribal communism" which he regards as McLuhan's "public-relations euphemism for totalitarian control" (ibid., 295). In keeping with William James' comment on the career of a theory, having ridiculed an imaginary version of McLuhan's position, next Mumford claims that he invented it, and furthermore, "unlike McLuhan I anticipated its drawbacks" (ibid., 295).

Mumford's rant also expresses a predominant feature of the hostile rhetoric on McLuhan's ideas: the accusation that he avoided the question of political and institutional power. As Mumford phrases this ideological counter-themata with respect to

power and response: "McLuhan's ideas about the role of electronic technology have been widely accepted, I suggest, because they magnify and vulgarize the dominant components of the power system in the very act of seeming to revolt against its regimentation. So far from there being any spontaneous communication under this regime, these electronic media are already carefully controlled to make sure that 'dangerous,' that is, unorthodox views do not slip through" (ibid., 298). McLuhan, he continues, the "promulgator of the system," supplies proof of "the real nature of electronic control" (ibid., 339). This proof the literal-minded Mumford locates in McLuhan's most seriously satirical passages, such as McLuhan's trenchant observation that we have surrendered our senses and nervous systems to private interests, and that man must serve his electric technology as he did all previous extensions (ibid., 296; 338). McLuhan's point, if one reads the whole of *Understanding Media*, is that these fates are inevitable unless we learn to pay attention to this neglected and fundamental aspect of the techno-cultural world that we have constructed. Blinded to subtlety by his outrage, Mumford refuses to recognize the powerful historical dynamic that has yoked technology and culture into a fundamental human relationship in and with the world, that is not predetermined to an inevitable outcome, but is a factor that cannot be thought away or walked away from at will (ibid., 435).

Academic attitudes also hardened against McLuhan, and in the aftermath of the fall from newsworthiness, the academy took the lead in forming an official consensus. His works were less likely to be read, and he was no longer considered to be a "must read". Stuck on the metaphorical surface, his ideas had a tremendous afterlife, particularly as slogans and sound bites; however this continued circulation lacked a ground for comprehending the meaning of his contribution. The influential divorce of his contribution from that of Harold Innis, due to Innis' obscurity and Carey's (1967) influential essay, and the erroneous suggestion that his work was simply derivative of Innis' further decontextualized his contribution. The forging of a negative academic consensus prevented attempts to take up his invitation to more deeply explore the transformations wrought through interactions with media and technologies within

history, daily life, or across cultures. This point can be conclusively established by attending to the lag between the assertion of McLuhan's ideas and the serious applications of those ideas, which--with rare exceptions--did not take place until the 1980s and 1990s. Instead of research, McLuhan attracted mostly critics as the academy attempted a permanent rhetorical excommunication of McLuhan and his ideas.

The negative academic consensus was complete by 1975, following the appearance of major critiques from James Carey, Donald Theall, Raymond Williams, Jonathan Miller and others. His theories were dismissed as technological determinism, and the rhetoric of the electrical sublime; he was ridiculed as a willing celebrity creation of the media or simply as a rogue scholar who laughably used books to announce the death of books. The collective power of these themes was typified in an accessible book written by academic and public intellectual William Kuhns (1971), *The Post-Industrial Prophets: Interpretations of Technology*, where Carey's work is cited as part of Kuhns' dismissal of McLuhan as "the sage of Aquarius" and apologist for a technological Eden.

Although most of the information is anecdotal, and there are exceptions notably in New York, numerous reports circulate of students discouraged by faculty from reading or taking seriously McLuhan, and being warned away from pursuit of his ideas for fear such association might ruin their careers, beginning in the 1970s and continuing into the 1980s. It was still common, as this author can attest, in the late 1980s, to find that citing McLuhan in a public gathering of academics would prompt the label, "McLuhanite", and frustrate any serious sort of intellectual engagement. With rare exceptions, these unofficial and unacknowledged practices set back attempts to extend McLuhan's insights or add precision to his scope. In North America, intellectual excitement shifted to French structuralist and post-structuralist ideas, and to the resurgence of neo-Marxist ideas imported from the strong new U.K. program of cultural studies (Hardt 1992, 178). Where attention was paid to communications media, which, after McLuhan, and given the growing importance of the phenomena, was inevitable--neo-Marxist communications scholars, such as Dallas Smythe (1977), belatedly called for the Marxists to remedy their

blindspot with respect to communications, while ignoring or trivializing McLuhan's importance. These movements overshadowed McLuhan's contribution and obscured the communications history tradition that emerged out of the Toronto School of Communication. His critics attempted to incorporate Innis into a neo-Marxist frame, ignoring his liberal orientation, and thus were further motivated in their rhetoric of rejection of McLuhan, perceiving him as leading commentators astray regarding the true Innis. Eisenstein's (1979) extension of McLuhan's *The Gutenberg Galaxy* to the printing press continued the rhetorical rejection of McLuhan; as noted in Chapter 2, however, simultaneously and despite her rhetorical attacks, this work further solidified the claim for the fertility of McLuhan's ideas and those of others connected to the Toronto School of Communications and the communications history tradition.

The academy had collectively rendered a verdict. Few dissented out loud. Yet an obvious anomaly arose since even McLuhan's most severe critics had admitted the significance of McLuhan's central contention regarding the importance of attending to the medium, and not simply the message. Partly due to continued circulation through popular print and electronic media, partly due to the resonance of his ideas and their migration into basic intellectual equipment for many, McLuhan's ideas and signature phrases lived on, leading a sort of double life, simultaneously prevalent and suspect inside but also outside the academy. His later interviews on the themes of what he called living at the speed of light, insights into computers, telecommunications, the brain, and the mixed promise and perils associated with these developments might have sparked his critics to reassess their interpretations of his contribution. Yet after the negative consensus, he remained a marginal academic figure, and no serious reappraisal appeared during the later 1970s. Curtis made a rare and early attempt in *Culture as Polyphony* (1978) to demonstrate the value of McLuhan's insights. When he was mentioned, the critics mostly stuck to his earlier works and their hostile opinions. The forged negative academic consensus achieved a kind of inertial force as orthodoxy.

During the Split Opinions Period, the ambivalence continued, despite this official academic excommunication. McLuhan's appeal remained broad if diffuse on the popular front and in professional circles, among students, advertising and business executives, architects, teachers, artists, art historians, media producers, museum personnel, and political advertising campaigners. Many reminisced later about the impact of McLuhan on their careers (e.g., Sanderson and MacDonald 1989; Nevitt and McLuhan 1994), but during the 1970s, academic and media attention had moved on. Circulation of McLuhan's ideas continued through his books, live and media appearances, and the popular culture which had now embraced him as an icon. As Boorstin (1961) had noted memorably, the celebrity is a person who is known for his well-knownness, and once such curious status is constructed, the traces linger. Even McLuhan himself referred to the McLuhan of the controversy in the third person (*Letters* 1987, 506). He was also known to the media as a potential guest commentator, for instance on the topic of Watergate in 1973 (Dennis 1974), and on new media developments by Tom Snyder (1976), and in *Maclean's Magazine* (1977). Another event during the 1970s which underscored both his continuing celebrity and his absorption as icon into popular culture was his cameo appearance in Woody Allen's 1977 box office hit and Academy Award winning movie, *Annie Hall.* Significantly, the McLuhan controversy can itself be considered to feature in the plot, as the director, a New York artist and intellectual, fantasizes about having McLuhan himself emerge in a movie lineup to put down an academic pontificating about McLuhan while uttering the lines: "You know nothing about my work." Ironically, McLuhan the pop cultural icon of an academic intellectual had for most academics come to epitomize the intellectual *manqué*.

On the popular front, while reaction continued to be mixed, it hardened in a negative direction (e.g., Winn 1977; Mander 1978) for those who had grown convinced of the power and evil influence of television and who considered that McLuhan's work had glorified the medium and pronounced books, which seemed the antidote, dead. Television and popular culture continued to flourish and to reshape the cultural environment, as

McLuhan had predicted. Turning McLuhan's arguments against him, he was associated with and sometimes blamed for most of the ills of modern life. His ideas were by now distorted sufficiently, and his original works so rarely read, that they approached incoherence through misuse.

Dismissal and Reappraisal: Afterlife Decade of the 1980s

After his death in 1980, some critics began to take a second look. The divergence of views continued, and a mixed Dismissal and Reappraisal Period of response commenced. In retrospect the academic consensus can be seen to have been unstable, even while the negative consensus predominated, as some recognized the undeniable value of McLuhan's contribution for various areas within the interdiscipline of communications. The scope of his ideas, which so troubled the specialists, mitigated against coherence; in the absence of a school or interpretive network of scholars willing to read his work whole, the play of multiple interpretations further fragmented his influence. A multiple paradox intensified: official rejection, accompanied by covert appropriation within academic domains, continuing popular media circulation, and the occasional rebel willing to publish views questioning the received wisdom on McLuhan.

A younger generation of scholars (including Tom Cooper, Bruce Gronbeck, Paul Hirsch, Paul Levinson, James Curtis, and James Striegel) tended to take a somewhat more benign and even nuanced view of McLuhan's contribution. As a group, they expressed these views in a retrospective special issue of the *Journal of Communications*, published as the "Living McLuhan" in 1981. Despite the diversity of their focal interests, reflecting their own thematic commitments, all made the obligatory reference to the celebrity that had clouded the reception of McLuhan's work. This volume marked the commencement of a Reappraisal which paradoxically coexisted alongside the ongoing Dismissal. Later, as academic life took hold, some of these career academics seemed to revise their views in a more negative direction (e.g., Gronbeck 1991).

Taken as a whole, "Ferment in the Field" (*Journal of Communication* 1983) exhibited the enduring ambivalence in its rhetoric on McLuhan. Carey, for example, who had compared McLuhan unfavourably as always to Mumford in the 1981 *Living McLuhan* retrospective, now linked Innis to American radical individuals whom he claimed were touched by Marxism (David Riesman, C. Wright Mills, and Kenneth Burke), while identifying McLuhan's work in a footnote to the British tradition of cultural studies "formed around" Raymond Williams' work, because both men had studied under Leavis at Cambridge. Carey dismissed McLuhan as "the oddest of the lot" (1983, 312). Other authors acknowledged and incorporated after a fashion McLuhan's contribution, along with that of Innis and the communications history tradition, as pivotal because they reinscribed the humanities and history into the field of communications (e.g., Rogers and Chaffee 1983, 25; Katz 1983, 52; White 1983, 284-86). There was also no doubting McLuhan's international impact, as Balle and de Baillon (1983, 150) wrote: "His work had a tremendous impact on media research in general and on French research in particular." Superficial as these fragments of attention seemed, the subtext was clear: the ferment in the field of communications referred to in the title arose from the impact of Birmingham School U.K. cultural studies in particular, and neo-Marxism in general, as Hardt (1992) later declared. Brantlinger's *Bread and Circuses* (1983) provides another exemplary illustration of the academic ambivalence towards McLuhan, and mixture of reappraisal and dismissal that prevented clear-sighted recognition of his contribution. Brantlinger found merit in McLuhan because he recognized the potentially emancipatory prospects of new media, a recognition that had evaded previous neo-Marxists. Yet Brantlinger sided with the authoritative critiques of Williams (1974) and Carey and Quirk (1970) in dismissing McLuhan as an arch technological determinist and exponent of the rhetoric of the electrical sublime. In retrospect, the fledgling reappraisal of this period seems inchoate and lacking in context and critical ground. Without re-reading McLuhan whole and placing him in the context of the emergence of communications history, the critic could follow his

or her thematic commitments, unconstrained by a full appreciation of the object of criticism.

A reappraisal of Innis' work early in the decade had triggered a round of further condemnations of McLuhan's ostensibly pernicious influences and interpretations (Melody, Salter, and Heyer 1981); however, even at this time, rare voices began to reappraise McLuhan in a fresh light (e.g., Crowley 1981). A conference on McLuhan and Orwell, entitled "Beyond 1984," was convened in Paris by the Canadian Commission on UNESCO, and provided an occasion for a limited reappraisal by and for a very specialized audience. Again opinions were split. Theall had already begun to revise some of his previous views, and at this conference cautioned against the tendency of the ideological left (in which he included his own 1971 book) to dismiss the Toronto School and McLuhan's importance for study of communications, culture, and technology. The recently appointed director of the McLuhan program, Derrick de Kerckhove, in association with French colleagues, spoke sympathetically if defensively of the extensions of McLuhan's last decade insights into and intuitions on the brain in scientific directions through "neurocultural" research. The published conference proceedings had restricted circulation.

By this point those who appriopriated McLuhan often did not mention their debt to him, for instance the ongoing work of leading U.S. communications scholar George Gerbner, beginning in 1969, on cultural indicators. Gerbner distinguished his empirical content analysis approach by employing one of McLuhan's key concepts, that of media as environment. Some public intellectuals writing for popular audiences dismissed him glibly, as for example Schickel (1985, 292-3) in his study of celebrity, *Intimate Strangers*. Mostly references remained confined to *Understanding Media* and *The Gutenberg Galaxy*. By this time, the noted communications history scholar, Ong, had distanced himself gently from McLuhan from whom he had learned much. Ong's work in *Orality and Literacy* (1982) provided further testimony to the fertility of McLuhan's themata and the extent of Ong's debt. The deeper issue, discussed in Chapter 2, revolved around Ong's attempt to refocus the tradition away from media and towards more conventional and

acceptable subjects, such as the historical evolution of consciousness. In a somewhat more positive spirit, prominent Toronto scholar of the orality literacy problem, David Olson (1981), expressed ambivalence about McLuhan, and trenchantly assessed how his style alienated the academy. Nonetheless Olson attempted a partial recuperation of McLuhan's significance. Thus tentative reappraisal remained a minority view alongside the prevalent dismissal, distortion, and trivialization of McLuhan's contribution during the early to mid-1980s.

Meanwhile, as discussed in Chapter 2, the emergent tradition of communications history had matured as indicated by the appearance of several ambitious books that incorporated McLuhan's insights, yet simultaneously demonstrated the signs of deformation in the aftermath of the orthodox negative academic consensus. The counter-thematic charges of technological determinism, rogue scholarship, enemy of the book, and global village millennial optimism stuck; most writers preferred reference to partial glosses of his best known works over engagement with his difficult texts. Communications historian, Daniel Czitrom (1982), developed an argument that hailed "the radical American theories" of Innis and McLuhan and masterfully intertwined theory and American history to narrate the story of communications from telegraph to radio. Czitrom acknowledged Carey as inspiration for his dismissal of McLuhan. Later, but in similar manner, Canadian communications professor Paul Heyer (1988) traced an unacknowledged lineage for the field of communications history in *Communications and History*. Again, Carey's judgement on McLuhan held sway, as well as Heyer's teacher, Edmund Carpenter's disdain for the later media icon, McLuhan. McLuhan was included in Heyer's pantheon of the emergent tradition, but dismissed as a "clown prince."

Despite the widespread influence of his themata and metaphors, few appeared ready to apply McLuhan's ideas seriously to research projects. There were exceptions, which will be mentioned and taken up in Chapter 4. Patricia Greenfield (1984) adapted McLuhan's insights, especially his point that the medium is the message, and that new media such as personal computers and video games may give rise to sensibilities learned through

childhood exposure. Joshua Meyrowitz valuably extended McLuhan's work in *No Sense of Place* (1985), while Paul Levinson (1988) took a philosophical and evolutionary approach to a similar task. Both were associated for a time as graduate students at N.Y.U. with Neil Postman, whose work had been greatly influenced by McLuhan. Despite his excellent research application, in an influential and misleading formulation, Meyrowitz narrowed the scope of the Toronto School contributions of McLuhan and Innis by dubbing the pioneers "medium theorists," a tag that gained favour among other communications history theorists (e.g., Thompson 1995; Crowley and Mitchell 1994).

During this tentative Reappraisal decade, Fekete (1982) toned down his previous harsh criticism, adopting a "friendly humanist reading" of McLuhan. Arthur Kroker in *Technology and the Canadian Mind (1984)* provided a coherent postmodern context for a reappraisal of McLuhan (as well as Innis and George Grant) within a Canadian intellectual tradition of thinking about technology poised midway between the American pragmatic dynamo and the European lament. In a major retrospective on this tradition instigated by Kroker, Theall's earlier appraisative article was reprinted in the *Canadian Journal of Social and Political Theory (1984)*. By this point, postmodernism was beginning its sweep across the intellectual landscape, and the superficial and deep affinities with McLuhan were dimly perceived.

McLuhan's inner circle also published. Collaborator Nevitt glossed the complete McLuhan in *The Communication Ecology* (1982) but his dense prose limited its audience appeal. Logan published *The Alphabet Effect* (1986), a continuation of his collaborative work on phonetic literacy with McLuhan (1977). De Kerckhove published articles on rhetoric and communications with the phonetic alphabet (1982) and *BrainFrames* (1988), which applied neurocultural research to the conduct of business organizations.[25] Havelock, McLuhan's fellow pioneer in the Toronto School, in *The Muse Learns to Write* (1986), finally and reluctantly linked his own work in *Preface to Plato* (1963) with the breakthrough contribution of McLuhan in *The Gutenberg Galaxy*, in a curious and self-serving retrospective that misstated the original publication dates of McLuhan's book

(1963, instead of 1962).[26] On the popular culture front, David Cronenberg's film, *Videodrome* (1982), portrayed a dark vision of television and McLuhan, who figured in the character of Brian O'Blivion, a man available only on videotape in the Cathode Ray Mission and who utters the McLuhanesque line: "The television screen is the retina of the mind."

The majority of academics who bothered to mention McLuhan during this period were still mostly dismissive. Carey's enduring influence can be clearly established in the work of authors both sympathetic and hostile towards McLuhan's project of communications history (e.g., Czitrom 1982, xiii-xiv; 165; 180-82; Slack 1984,57; Marvin 1986; Heyer 1988, 125-26; Ross 1989, 115; Ferguson 1992). Most hostile or indifferent authors use Carey's early texts as the anchors for their rhetoric of rejection on McLuhan and tend to cleave to his version of McLuhan. This pattern of citations of and attribution of authority to Carey has become orthodox wisdom for North American communications scholars (Schement and Curtis 1995, 223, n.14).

Carolyn Marvin is of especial interest because she participates in the communications history tradition, albeit from a "social relations" stance, which she distinguishes from that of the Toronto School in a five-page article entitled, "Innis, McLuhan and Marx." In her truncated discussion and rejection of the "grand theory" of Innis, Marvin has this to say of McLuhan: "For reasons of parsimony, I am collapsing McLuhan into Innis for this discussion. I agree with Jim Carey that as a 'student' of Innis, McLuhan attempted (with less success) to do for psychological perception what Innis attempted to do for institutional organization" (1986, 359). The bias of the forged negative consensus is at work. Yet Marvin's major work, *When Technologies Were Young* (1988), shows the indelible influence of McLuhan, while avoiding seriously crediting his line of thinking. She hails the significance for historians of treating the electric light as a medium, and waits until page 254 to cite the source of this insight--McLuhan's *Understanding Media*. Furthermore, she argues for a contextual treatment of all media, including the telephone, and traces the rise of electronic media back to the telegraph. *Understanding Media*

(1964) preceded her in tilling the same ground, while also expanding the scope of the concept of media. While Marvin is ambivalent about this expansion (1986, 358) in that she believes McLuhan "sacrificed both force and historical precision," in her book (1988), she nonetheless offers powerful arguments as to why a narrow restriction of communications history to the mass instruments of radio and television--a mistake McLuhan at no time made--is unhelpful.[27] Marvin's work offers compelling evidence in support of the conclusion that the negative academic consensus forged in the early to mid-1970s persists, and deforms comprehension of McLuhan's contribution.

Later in the decade, the Reappraisal and Dismissal Period tilted further toward reappraisal with the release of new material. McLuhan's papers became available at the National Archives of Canada, the edited collection of *his Letters* appeared (1987), as did the first bibliography by Marchand (1989), based on the papers and interviews. There were no hidden scandals uncovered of the magnitude of Heidegger or deMan's Nazi pasts; yet most critics seized upon McLuhan's early suspicion of rejection by the academy, his preoccupation with the influence of secret societies in the arts, and his horrific private visions of the future with media during the Last Decade. Belatedly, the ambivalence of his private views on what he beheld was recognized. Yet few beyond the journalist biographer, Marchand, attempted reappraisal based on these materials. The posthumous *Laws of Media* (1988), completed by son Eric, stirred limited interest, as did *The Global Village* (McLuhan and Powers 1989).

Canadians were notably active at promoting such reappraisal as did emerge in this later part of the decade. Academics, artists, and practioners reflected together on McLuhan in *The Antigonish Review* (1988). *The Canadian Journal of Communications* (1989) published academic reappraisals by Theall, Heyer, and de Kerckhove, while also reprinting one of McLuhan's finest oral performances, the *Playboy* interview (1969). It seems no coincidence that much of this rethinking took place in Canada. Not only was McLuhan a native son who unusually declined to participate in the Canadian brain drain, but as discussed in Chapter 2, Canadians have long had a fascination with the linkage among

communications, technology, and nation-building (Irving 1962; Kroker 1984). By the later 1980s, possibly coinciding with a decline in the traditional dominance of most Canadian universities by imported U.S. and U.K. scholars and deference to foreign traditions, a growing number of academics seemed open and willing to rethink McLuhan's contributions.

Revival: The instability of the negative academic consensus 1991-1995

During the first half of the 1990s McLuhan's ideas surfaced vibrantly in popular and scholarly contexts. Once again his significance was praised, scorned, and generally contested. In short, McLuhan's resurgent work had by this time become unquestionably fragmented. This stage of the enduring ambivalence (which continues at the time of reappraisal in 1997) can be characterized as the Revival Phase, and results in part from external events, namely, the renewed need for commentary on the emergence of another major set of techno-cultural developments, this time linked to the computer and the Internet.

The negative consensus continued to circulate in Canada early in the decade, as exemplified in Babe (1990) who restated the dismissal of McLuhan under the counter-themes of ideologue and myth-maker. The historian, Paul Rutherford (1990), likewise took up the attack, but included more recent texts while making obligatory mention of the early counter-themata of Carey and Miller. Rutherford's fellow historian at the University of Toronto, Graeme Patterson (1990), also drew upon McLuhan's letters in *History and Communications* to reach an entirely different conclusion. Patterson appraised the interpretations of McLuhan and Innis and found their communications historiography fertile for his own case study within nineteenth-century Canadian history. In *Clarifying McLuhan* (1992), S.D. Neill, a professor of Information and Library Science, took issue with points of fact in *Laws of Media* (McLuhan and McLuhan 1988) and *Understanding Media*. Based on his reading of McLuhan's letters, Neil independently concluded that McLuhan's core theory was of "communications as transformation" (1992, 55), but he

overlooks other evidence in the letters (supported by McLuhan's published texts, as Chapter 1 demonstrated), and accepts the implausible view that McLuhan's theory is technological determinism. He then surveys various literary anticipations of this idea, and alternative theories of communications as transformation (1992, 59-64), all advanced after McLuhan, and shows that technological determinism need not be an element of such a theory. Neil could have found this same evidence within McLuhan's own work. Neil's point that media are not the only causative factors in historical change was again evident in McLuhan's *Understanding Media* and also in his references to the work of Innis and the role of other technologies, such as the stirrup as discussed by White, textual evidence Neil inexplicably seems to think McLuhan ignored. In this interesting if tedious critique, Neil suffers from what can be called a fallacy of misplaced refutation. This is a controversial point; however, it seems apparent that the whole horizon of what McLuhan's abductive theory--as announced in his striking rhetoric--discloses is greater than the facts out of which he could glimpse it. His scope, as argued in Chapter 1, exceeded his precision. Minor refutations seem designed to discourage vision rather than encouraging scholarship, the latter doubtless Neil's intent. Neil (1992, 62) may be right that "people who do not want to be taken literally should not write books." Perhaps he can be forgiven his other smug references to proper scholarship, yet he cannot disguise the lack of vision in this sort of enterprise, amounting to a critique for its own sake as it were. The "facts" that Neil believes he has hunted down to "refute" McLuhan only serve to emphasize that response to McLuhan's work is unproductive if his invitation to take up parallel discoveries is rejected by the critic. In this respect, Neill's sterile and unilluminating clarification stands in for others of similar myopic purpose.

Once again, as Dennis had seen earlier, magazines played a major role in disseminating McLuhan's ideas; now, however, new media found, in McLuhan, appropriate non-linear content and a theorist who seemed, in retrospect, to have foreseen many current developments and whose work could be mined for insight. On the techno-cultural front, *Wired Magazine* claimed McLuhan as patron saint. As this magazine was

itself hailed by other media as a harbinger of the emergent computer sensibility, the recycling of McLuhan's aphorisms and insights was much wider than the limited circulation of *Wired* itself. *Harper's* magazine editor (and public intellectual), Lewis Lapham, introduced the reissue of *Understanding Media* in 1994, arguing that McLuhan made more sense in the 1990s than he did in the 1960s. Numerous articles appeared, and references abounded, as always pro and con, in magazines ranging from the *Economist* to *Scientific American*. "Imprint" on TV Ontario profiled the revival of interest in a 1996 program, and the Canadian investigation of television "TVTV" created by Moses Znaimer reflected upon McLuhan's contribution. Southam/Voyager issued a CD-ROM replete with McLuhan's work, audio visual clips and later commentary in 1996. In a sign of the times, the CD-ROM gave rise to an elegant and thoughtfully non-linear book (Benedetti and DeHart 1996). At least two plays were produced in 1995. More than 5,000 "hits" or potential destinations on the World Wide Web mentioning McLuhan turned up in a quick search in late 1996. The multimedia list of revivals continues.

McLuhan's inner and extended circle published prolifically. Eric McLuhan and University of Toronto Italian Studies professor, Francesco Guardiani, co-edited Volume 1 of the *McLuhan Studies Journal* (1991), which featured an array of interpretations, placing McLuhan within an indigenous postmodern tradition (Guardiani 1991), and using his ideas to rethink modernity (Barilli 1991). De Kerckhove (1995) and Logan (1995) brought out books applying and extending McLuhan's insights, which will be discussed in the next chapter. Numerous books of collected essays were also published that shed light--often of an anecdotal nature--on McLuhanism, (e.g., Nevitt and M. McLuhan 1994; McLuhan and Zingrone 1995; Benedetti and DeHart 1996). These books fuelled the reappraisal with impressions. McLuhan emerged as a paradoxical kaleidoscope of fragments. Much of the resurgent interest focused on the man behind the mask and whether or not his personal opinion was "actually" optimistic regarding the electronic revolution and its consequent transformations. The revelations in the published *Letters* and Marchand's 1989 biography had sparked some of this interest, which seemed to reflect a

mixture of tabloid television taste for "revelations" behind the scenes and a genuine anxiety as the techno-cultural transformations represented by the micro computer called once again for fresh approaches to understanding media.

During the early to mid-1990s, circulation of many contradictory versions of McLuhan's work continued, decontextualized from his traditions or corpus as a whole. The master of the one-liner continued to be reduced to one-line fragments. Yet, the academy had failed decisively to excommunicate McLuhan and to deny him credit for his insights. Once again, for many outside, but increasingly inside, the academy, McLuhan's controversial assertions seemed relevant to and resonant with contemporary experience. Once again his lack of focus on institutional power posed threats to the ideologically motivated, often neo-Marxist interpretation of events (e.g., Babe 1990); while others took a more benign view on McLuhan, finding ways to incorporate his thinking about the information age. Richard Lanham (1993, 58) applied McLuhan's insights perceptively to the newer digital media, and recognized McLuhan as the scholar who perhaps more than any other since the Second World War had "opened rhetorical study to new ways of thinking." The familiar distortions were also in evidence, and the consensus effective in convincing some scholars at second hand that McLuhan was merely derivative of Innis (Schement and Curtis 1995, 207-09; 223, n.14). Once again, his work was identified with technological determinism. The difference this time was that there were an increasing number who had read his work and who neither shared nor accepted these distortions.

By the 1990s McLuhan was known not just for being known and for placing media on the public agenda as a topic in the 1960s, but for the controversy over establishing media and popular culture as topics worthy of serious study within the academy. The dismissal continued, but the instability of the orthodox consensus had become apparent. On the scholarly front, for example, John Thompson (1995) adapted McLuhan and Innis--whom he called, in a slight twist on Meyrowitz's phrasing, the "media theorists"--to social theory, but included the by now *de rigeur* dismissal of McLuhan's importance. Even the philosopher, Michael Heim, who astonishingly had dismissed McLuhan's work (1987,

57-58) while clearly recognizing the significance of a theory of transformation (which he found in Ong and Havelock) along lines similar to the interpretation presented here, had by 1992 rethought his position and included McLuhan with Martin Heidegger in a compelling discussion of the computer and its significance. To take yet another important example, again to illustrate non-exhaustively the myriad approaches to reappraisal during the Revival period, Richard Coyne (1995, 17) argued that the "current wave of popular and accessible computing" was attributable to the pragmatic tradition of communications represented by John Dewey and sustained by the "media philosophy" of McLuhan. The historically effective influences on the designers of democratic distributed personal computer networks flows from these sources, observed Coyne.[28] A final example, to conclude the evidence for the Revival of McLuhan, can be found in the writing of Ian Angus, who began to reformulate the communications history tradition as what he called "comparative media theory" in the late 1980s. In a 1994 article, Angus argued that "the perspective of comparative media theory can offer cultural studies a renewal of its critical edge" (1994, 235) by refocusing attention away from the plurality of interpretations of content possible for audience members, and onto the lack of democratic reciprocity in relations between audiences and media themselves. This shift within cultural studies approaches to communications can only be achieved with McLuhan's help, by "putting the various media in relation to each other by discussing the context of the medium in a comparative manner" ((ibid., 247).

With the Revival, the 1990s witnessed an increased interest among doctoral candidates. Perhaps most paradoxical, several dissertations reappraising McLuhan's contribution were prepared and published by 1996, within a neo-Marxist (Stamps 1995) and a neo-Marxist postmodern tradition (Wilmott 1996)[29] The third stage of William James' dictum had been fulfilled: "[F]inally [the new theory] is seen to be so important that its adversaries claim that they themselves discovered it." Most of these later appraisals included reference to the controversy surrounding McLuhan's ideas, or some disdainful dismissal of his fame and his appeal to public audiences through popular media. The role

of ideologues of the left in distorting McLuhan's contribution has not yet been acknowledged by their heirs. Once again, the academy is mostly negative, if perhaps less dismissive once it averts its eyes from the popular circulation of McLuhan's ideas; once again, McLuhan's paradoxy enables his critics to read their thematic commitments into their interpretations of his work. Yet the camp of dissenters from the negative academic consensus continues to grow.

McLuhan is evidently not to all tastes; yet this is no excuse for rejecting his contribution based on a negative consensus that even many of its authors seem to have modified. As discussed in Chapter 2, Carey, in the early 1990s, finally managed to include McLuhan in the pantheon that he had been first to recognize publicly: "a distinctive North American version of communication theory" which also included Innis, Havelock, and Northrop Frye (Gronbeck, Farrell, and Soukup 1991, viii). The predecessors Carey traced for this "loose and disjointed group" included Patrick Geddes, Mumford, Dewey, Park, members of the Chicago School of Sociology, and Kenneth Burke. The Toronto group, declared Carey, proved "decisive" not because it represented the initiation of a communications history tradition, as argued here, but because it gave cultural studies a distinctive North American articulation. The exemplar of this Toronto-originated tradition, Carey now intones, is McLuhan's former student, the St. Louis University Jesuit, Walter Ong, whose work has "never been a form of simple technological determinism" (ibid., x). One must admire Carey's dogged persistence: anyone but McLuhan.

Theall's reappraisal in the 1990s appeared in the first of his two master works on Joyce, *Beyond the Word: Reconstructing Sense in the Joyce Era of Technology, Culture and Communication* (1995). He continues his previous assertion (Theall 1971; Theall and Theall 1989) that McLuhan should have been able to do more about presenting Joyce's work to a broader audience since, he argues, Joyce the "poetical engineer" and radical modernist anticipates not only McLuhan but also the postmodern multimedia environment known as cyberspace, multimedia, and virtual reality. Theall acknowledges that McLuhan credited Joyce with anticipating his findings, but regards this as insufficient.

The rhetoric of the old combat remains ("McLuhanitic", 1995, 95), and the major counter-themata are updated. Now Theall critiques McLuhan because he did not painstakingly address the "slow, gradual change and complex interaction between social, economic, political, cultural and material factors" (ibid., 96). Theall has discovered new allies for his critique of McLuhan in Marvin (1986; 1988) and Eisenstein (1979), whom he cites approvingly as providing alternatives to McLuhan's flawed approach. Theall cannot bring himself to acknowledge the obvious, namely, that both of these authors are as deeply indebted to McLuhan as is he.

Theall concludes that another of McLuhan's key flaws is his imprecision in his use of the term media (ibid., 97). Elsewhere Theall approvingly propounds a revision of McLuhan's enduring slogan, "the medium is the message," as "the micro is the message" (ibid., 91). The focus of attention by McLuhan and Innis on major transformations and historical turning points is dismissed by Theall as the work of "good Romantics" (ibid., 96). Ultimately, then, Theall would have McLuhan return to his roots in literary criticism, incorporate social theory, conduct painstaking studies, and develop a communications ecology[30] that places Joyce at the centre of the pantheon. This is not a critique of McLuhan so much as a rhetorical prescription for a preferred program and course of academic conduct. Nor can this be considered an answer to the deeper question that Theall's work has so consistently and valuably raised, namely, what strategy will revivify the humanities in the electronic age, and how is communications the heir to a vital humanist legacy?

In conclusion to this overview, diverse additional reasons can be reviewed that may in combination partially account for this instability of the orthodox rejection and subsequent revival of interest in McLuhan. First, the academic contribution to this revival stems from a changing intellectual climate. There can be little doubt as to the significance of media as a major factor in late twentieth century life, even if its meaning remains vigorously contested. Culture as a concept has taken a decidedly anthropological turn, yet give the "blurred genres," literary and other artistic strategies are routinely incorporated into

cultural analysis. Media are not only omnipresent, but computer-based education and media are altering approaches to education and scholarship. Politically, the neo-Marxist version of history has been invalidated by events, as McLuhan predicted it would be. While McLuhan remains ideologically suspect for some, his work can no longer be so easily dismissed as McLuhanacy (Fekete 1977). Postmodernism permits a fresh context for appropriation of McLuhan, a context in which he does not seem so alien, in part because his satire, wit, puns, and intertextual references are better appreciated. Thus some of McLuhan's most dedicated opponents and most creative potential allies find it opportune to appropriate, and more difficult to dismiss, his views. Another powerful contributing factor to the revival of McLuhan's ideas is the presence within the academy of some of those "television babies" who, at an earlier stage, were inspired by McLuhan. Some gravitated towards study of media and communications history.

The impact of these external events, notably the newer techno-cultural transformations surrounding the personal computer, require further investigation. For some public intellectuals, including Lewis Lapham, McLuhan makes more sense in the age of the Internet than he did in the 1960s. McLuhan's ideas about techno-cultural transformation and mediamorphosis make him one of the few to attempt to frame the vast number of variables required to make sense of what's going on. (Innis was, of course, another.) McLuhan's mosaic approach and deliberate lack of a fixed point of view--aspects of his work that so troubled his critics--anticipated a nonlinear sensibility, whether expressed in complexity theory or on CD-ROMs. A new "wired" generation is coming of age amidst profound technological changes with impacts on all aspects of cultural life, and McLuhan's ideas and metaphors are as yet unpassed as inspiration for thinking about new media. This is particularly true once one considers that the newer media such as CD-ROMs, the Internet, World Wide Web, and books that are typographically designed to be scanned like television, bring McLuhan's work to life and make his thinking more accessible. Younger students and scholars often do not know McLuhan by name, nor have they read his work; yet they seem to have absorbed his ideas within the general cultural ambience, which

increasingly means popular media culture. Nicholas Rushkoff, for example, whose books (e.g., *Media Virus* 1994) mention McLuhan, and who appears to have absorbed McLuhan thoroughly, states that he has not read him (personal conversation, Ontario Institute for Studies in Education, Toronto, November 1996). To those unfamiliar with the previous quarrels, McLuhan's work does not seem so outrageous in the 1990s. The idea of media as environments, for example, in which we live like fish in water, as well as the puns, wordplay, and typographical innovations, no longer seem so unfamiliar. McLuhan's fame is strangely attractive, an attraction that for some is directly linked to McLuhan's rejection by the academy. In this sense, he appears to later generations as an outlaw. This question of creative impact is not simply a matter of style. While it is widely known that *Wired* magazine claimed McLuhan as "patron saint," it is less well known that the magazine's innovative layout was inspired by the aesthetics of McLuhan's collaboration with designers on *The Medium is the Massage* (Benedetti and DeHardt 1996). Technologies can become art forms and shapers of sensibility, a fact that McLuhan was one of the first to recognize; culture and information have become the business of the world, as McLuhan grasped early. For better or for worse, these sensibilities and the digital typographic productions that reflect them do not seem outrageous to the creative members of a young, wired generation.

In short, the climate of reception has changed, inside and outside the academy, and there is a chance that McLuhan's ideas will receive a hearing that they did not have the first time around. But this will not go unopposed. There is a search underway for metaphors and the means to express the upheavals taking place. To change the world, as McLuhan inverted Marx's statement, first we must understand it. The revival of McLuhan cannot overcome the fragmentation of his ideas without a re-reading of his textual corpus (Chapter 1) within the context of the emergent tradition he announced and helped initiate (Chapter 2). Nor will this be sufficient without a sustained questioning of the forging of the negative academic consensus, which will be undertaken below. Even so, in the aftermath of the controversy there will never be one monolithic interpretation of

McLuhan, and his works will remain open to the reader's participation, as he designed them. This review serves its function if it casts doubt on the conventional rhetoric of rejection of McLuhan's contribution. It succeeds if it persuades the reader that a first and even second look at his work is required.

In conclusion to this non-exhaustive overview,[31] the effective influence of McLuhan's ideas lasted long after the hardening of academic attitudes against his persona, his work, and the waning of his celebrity. His ideas percolate subversively throughout popular, artistic, and academic culture, wherever the topic of new media and communications and information technologies are considered. As the 1989 edition of the Oxford English Dictionary makes plain, McLuhanism has become synonymous (and eponymous) with a style of understanding media, that consists of a playful use of words, wit, and erudite allusion to capture the momentous changes resulting from our relationships with media and technologies. His name is linked to the widespread use of the term, media, and some of McLuhan's phrases have become "metaphors we live by" (Lakoff and Johnson 1980) which thus have contributed to the reorganization of the imaginative and conceptual framework through which we perceive and communicate about the way the media-saturated world works. McLuhan was an educator and rhetor adept at ingenio, or the invention of words and topics to capture meanings and experiences. This is a devalued art, as are all the rhetorical arts. McLuhan frightened the academy, and this sense of threat has sustained the orthodox academic animosity towards and dismissal of McLuhan's contribution. Yet this orthodoxy eventually proved unstable. McLuhan did not devise a system; rather with the help of his many sources, he suggested one and, in the process, contributed to the invention of an original vocabulary and perceptual tool kit out of which such a future system can be constructed.

The Rhetorical Space of the Molten Phase of response

A summation of salient characteristics of the rhetorical space of the Molten Phase of response can now be undertaken. McLuhan's works were known in all English-speaking

countries, published in Europe and elsewhere. This was the first of the major paradoxes of response: how could this marginal man from a marginal city, country, and university, attract such widespread attention? The phenomenon of McLuhan took on a life of its own, known as McLuhanism in part because his ideas sparked debate across conventional national and disciplinary divides. Everyone had an opinion on television, popular culture, and the decline of the book. Likewise, everyone had an opinion on McLuhan, even if it was to say that they had no idea what he was talking about. Media appealing to both specialized and general audiences were vocal on the controversy, with U.S. critics more likely to give McLuhan's ideas in *Understanding Media* a hearing than their counterparts in Britain, who had shown interest earlier in the ideas advanced *in The Gutenberg Galaxy* (MacMillan 1992).

During the Molten Period of response, when opinions had not yet hardened, arguments pro and con constituted a turbulent mix of ideas, a response appropriate to a fresh and contested set of ideas, but also characteristic of the excited 1960s. But there seemed to be several deeper, thematic battles in play, as evident in the comments of the critics. The tactics of the public and academic intellectual critics exhibit patterns of distortion, misquotation, and demonization, which seemed to thematically reflect the struggle against the growing power and influence of popular and particularly electronic media. Despite his intentions, McLuhanism came to personify these issues. It became commonplace to argue in the 1960s (e.g., Compton; Rosenthal; Nairn; Rosenthal) for a divergence between academic and non-academic reception to McLuhan's unorthodox style and ideas. This often meant that those who found merit in McLuhan's views were considered gullible or self-serving, while clear-minded, politically and methodologically correct academics knew better. The operations of the rhetoric of response across the intellectual spectrum as traced above through its phases indicates this persistent refrain: the academics were anxious to distinguish their (superior) professional domain from that of the (inferior) mediaworkers, in a replay of the ancient thematic divide of head and hand, theory and practice. McLuhan appeared to have blurred that line because of his willingness

to cooperate with agents such as Gossage and Feigen, who aided him in reaching popular audiences. His experimental wordplay that valued discovery over definition, coupled with his disdain for disciplinary specialism violated the canons of academic behaviour and the deep thematic and professional commitments of most academics. Thus for the interdiscipline of communications, the case of the rhetoric of controversy surrounding McLuhan poses interesting questions regarding the role of the public intellectual and the academy in a media-saturated environment under electronic conditions. Rhetorically, the dividing line seemed to grow at once more important to the academy and paradoxically more blurred as the debate over media and over McLuhanism intensified.

Four summative points can be made about the rhetorical space of the Molten Period. First, from the outset, excitement mingled with disagreement and disapproval across the intellectual spectrum from popular to public intellectual to academic response. Different people read different things in and into McLuhan's texts. All agreed that he had raised an important topic worthy of debate, but little agreement existed beyond this crucial point. The astonishing feature was the broad spectrum of response elicited by McLuhanism and the way in which commentary was focused on a familiar topic--media--which was placed onto the agenda for public debate in unfamiliar ways by McLuhan. McLuhan was thus indelibly linked to media, but the nuances of his ideas were lost in the controversy. For example, *Understanding Media* devoted one chapter to television and concluded with a look at automation, yet McLuhan's critics tended to identify his work with the television medium, as though they had not read the contextual chapters or the various developments of McLuhan's expanded notion of "media." The most superficial re-reading clearly indicates that McLuhan's discussion, reflected in the title, concerned media in the broadest sense, and did not focus exclusively on TV.

Secondly, within the wide spectrum of response, professionals, artists, and the young incorporated his ideas as his influence spread. Gossage understood this from his first exposure to McLuhan's ideas in *Understanding Media*, which prompted him to fly to Toronto with partner, Gerald Feigen, to meet McLuhan. Based on a conversation among

the three men in 1965, Gossage wrote to McLuhan, "the people who will be most attracted to you are those who already have well-developed theories along your lines. Your structure and nomenclature will extend them as they extend you."[32] Thus one could say that instead of the traditional academic approach to media as a cultural "problem" to be studied, for these producers and knowledge creators, McLuhan's approach brought into focus media as transformative instrument and environment.

The media covered McLuhanism as a hot controversy, particularly of interest because the controversialists were often eloquent, witty, and impassioned in their rhetoric of rejection or praise. The dry tones of the academic commonroom were replaced by elegant, barbed speech. McLuhan encouraged this response with his own monologic and provocative debating style. Following the publication of *Understanding Media*, the more McLuhan became identified with the popular controversy of McLuhanism, the more disdain the academy exhibited. When his books of the later 1960s (*War and Peace in the Global Village*, *The Medium is the Massage: An Inventory of Effects*, *Through the Vanishing Point: Space in Poetry and Painting*) appeared to be more popular or graphically innovative in format, academics and public intellectuals began to lose interest and patience. It was the academics, however, who seized the opportunity to consolidate their rejection of McLuhan.

The disagreements hardened by the end of the decade, as the Molten Period shifted into a more negative assessment. Academics led the way, along with neo-Marxists of all stripes. (e.g., Finkelstein's *Sense and Nonsense in McLuhan* [1968]). Those who saw qualified merit in McLuhan (Wolfe, Harold Rosenberg, Sontag, the early George Steiner, Arthur Schlesinger, Jr.) tended to place him within a context of humanist cultural criticism, and saw in his unorthodoxy the signs of a shift in sensibility that deserved serious attention. They read his books, but they also read McLuhanism as a phenomena. Either these critics did not concern themselves with issues of academic propriety or methodological purity, or where they did his transgressions seemed integral to McLuhan's contribution, part of his art, and the medium for his unprecedented message. Critics and

journalists operated under different rules from academics. They aimed to grasp the larger cultural picture, so details were less important. This appreciation of Sontag, Rosenberg, and Wolfe resembled the critical tradition in which McLuhan had trained at Cambridge. For this reason, it is possible to conclude that McLuhan received respect from those who were steeped in the study of Western culture and its art forms and sensibilities, while they remained receptive to the emergent techno-cultural conditions and significance of popular culture.

Within the human sciences, the academy has traditionally performed the ongoing work of classifying what counts as authentic knowledge and truth and what does not, and passing the results on while training the next generation. To the academy also falls the task of enforcing its verdicts, however informally rendered. Thus after the overt media controversy had subsided, presumably a more objective reflection could take place. Yet what rules should be adopted in the case of McLuhan's innovative ideas? Such objectivity could fall victim to pedantry or overreaction to the celebrity or controversy, and not to the substance of what McLuhan asserted; or such judgement could be swayed by misplaced disciplinary loyalty, whereby, for example, what McLuhan had to say was less at issue than whether or not he said it in a manner acceptable to disciplinary specialisms. By the early 1970s, when the media glare began to subside, the time for sober appraisal of McLuhan's contribution within the academy arrived. At this point, the lack of his formal school apparatus and the fluid state of communications itself as a contested site for turf wars and pantheon-building contributed to the incomprehension and hostility that greeted his ideas. His refusal to play by conventional rules had won him enduring enemies, and now it was their turn. Furthermore, the scope of McLuhan's contribution meant that his influence was scattered across many disciplines within the academy, neither concentrated into a formal school that could come to his defense, nor absorbed fully by the interdiscipline of communications.

Construction of McLuhan as paradox in the Molten Phase

During the later 1960s, while his celebrity waned, the forging of the negative academic consensus gathered momentum. It is a different sort of critic to whom we turn now. For these academic critics, there was no critical ground to receive McLuhan, as study of rhetoric was in eclipse, the ideas seemed too new, and the communications history tradition barely born. Thus the unheralded could comment and expect the same degree of interest as those well established, as the essay collections make clear. After all, McLuhan seemed to come from nowhere. Why not his critics? The critics to whom we now turn--except for the eclectic Miller--play by different rules from the public intellectuals. They are ensconced within the university; they make their careers there; they publish or perish there. The question concerning this section is: What was the nature of the rhetorical space surrounding the McLuhan controversy?

All his critics made one preliminary move, and it is crucial to understand this move in order to grasp the rhetorical strategies employed in the forging of the negative academic consensus. McLuhan's critics began their critiques by positioning his persona, and portraying him (and his work) as mysterious, quixotic, and paradoxical, an object which it was the critic's proper task to unmask for the audience (e.g. Compton; Rosenthal).[33] Another parallel tactic was to position him as a myth requiring demystification, as did both Rosenthal and Nairn in *McLuhan Pro & Con*. McLuhan unwittingly cooperated in this tactic in several respects: he did not regard his biography as relevant to his work; he designed his texts to be open to the reader's participation he operated without a fixed point of view, preferring to present a mosaic of insights; at this stage, he did not explain, he explored; and he was flippant. Within the resulting ambiguity of his work, designed to make room for his audience, lay the opportunity for his critics to project their interpretations, their thematic commitments--even their narratives--onto his meaning. As he wrote in a 1974 letter to Fishwick when he felt attacked by Everette Dennis: "One major misunderstanding concerns my 'style' which happens to be a very *good* style for getting attention. As for getting ***understanding***, that depends entirely on the reader. The

user is always the content, and the user is often very evasive or very stupid" (*Letters* 1987, 505).

The construction of McLuhan as paradox or myth was a necessary prelude to the forging of the negative academic consensus, because once so constructed, the critics could seize the occasion to resolve McLuhan's paradox in the direction of their own thematic commitments. Paradigmatic of the academic construction of McLuhan as paradox was an early essay, entitled "The Paradox of Marshall McLuhan" (Rosenthal 1969) by Neil Compton, then chairman of the English Department at Montreal's Sir George Williams University. A close reading of this essay illuminates the primary rhetorical manoeuvres in the forging of the negative academic consensus on McLuhan's life and work.

For Compton, the first layer of paradox lay in McLuhan's unorthodox intellectual biography. Note the tone of description: "The paradox is that this darling of marketing associations and the switched-on set idealizes the twelfth century, dislikes almost everything about the twentieth century to date (except its art), and has never really wavered in his loyalty to one of the most orthodox and conservative (not to say reactionary) of intellectual traditions" (1969, 107). Compton finds the surface paradox of McLuhan in the contradiction between the reactionary conservative intellectual traditions evident in his earlier work and the radical conservative work that appeared in the 1960s. Inconsistency raises suspicions within the academic community, as Compton illustrates:

> Because he held such views it is not surprising that McLuhan at one time gave the impression of being a bitter man who scornfully contemplated the world about him. Today, however, he embraces the universe with an almost alarming eagerness and zest. His system of values remains very much what it has always been (at any rate since his conversion to Catholicism) but recent history has apparently transformed his pessimism into a kind of millennial optimism. In spite of repeated claims to detachment and impartiality, he has clearly invested a great deal of emotional as well as intellectual capital in his faith that we are entering an era which bears the promise of paradise in the form of an undissociated electronic culture. (ibid., 108)

McLuhan's values are at issue, particularly his shift from pessimism to "millennial optimism." Compton continues the veiled religious metaphor ("the promise of paradise"),

which appears structurally related to his parenthetical observation regarding McLuhan's conversion to Catholicism, when he writes that *The Gutenberg Galaxy: The Making of Typographic Man* "expounds a revised standard version of the gospel of history according to McLuhan" (ibid., 114).

What would motivate McLuhan to make such a shift? Compton will now supply a narrative to explain to the reader McLuhan's paradox, or how "this improbable conviction came to take hold of him." In ad hominem fashion, Compton discovers "defects in McLuhan's emotional and intellectual equipment" (ibid., 123) which account for his lost pessimism, and scorns his apotheosis from an academic in the University of Toronto's English Department to "Madison Avenue's favourite philosopher " (ibid., 124). How has this apotheosis been achieved? According to Compton, McLuhan claims to be a detached observer, but is in fact committed; his deep emotional investment in the expected new order, which is to say, the triumph of electronic technology, is in fact not conscious, but rather "stems from motives of which he himself is only partly aware." Compton speculates that McLuhan has allowed "wish fulfilment to have a distorting effect upon his view of reality" and hints at the "real story" behind McLuhan's apotheosis when he warns darkly: "It would be better for McLuhan if his oversimplifications did not happen to coincide with the pretensions of young status-hungry advertising and television executives and producers, who eagerly provide him with a ready-made claque, exposure on the media, and a substantial income from addresses to sales conventions" (ibid., 124). Compton claims to uncover McLuhan's thematic commitments. In the process, he lays bare the expected boundary dividing academy from media. McLuhan's threat then arises from his deliberate crossing of barriers designed to separate the academy from the media. He weaves a rhetorical narrative on the reception of McLuhan's work. There are two cultures. Outside the academy, the popular and business culture of Madison Avenue is seen to respond differently to McLuhan's "oversimplifications" than do those genuine intellectuals possessing a higher level of social consciousness within the university. The fact that McLuhan appears on the media and speaks to sales conventions for a fee compounds the

problem of McLuhan's paradox for Compton. He is now an outsider on the inside, a traitor to his class of intellectuals. Compton accuses McLuhan of feigning disinterested scholarship, but driven by (possibly) unconscious motives, he perpetrates a conservative agenda. These accusations were typical of the ideologically-tinged criticism of McLuhan which came to predominate within the academy after the Molten Period. In the rhetorical structure epitomized by Compton's critique, paradox serves as a trope devised to set up a case for McLuhan's superficial inconsistency. To resolve this paradox, a narrative is supplied which offers the critics' account and which provides a coherence sharply at odds with McLuhan's sometimes cryptic statement of his intentions. McLuhan rejected these criticisms publicly in his interviews, and privately as confirmed much later in his *Letters*. However the deliberate openness of his writings made room for his critics' motivated misreadings.

McLuhan posed several threats, but early in the controversy, the perceived political implications of his work attracted insistent negative critique. Compton begins by problematizing McLuhan as inconsistent, or paradoxical, and then argues that McLuhan is in fact only too consistent in his conservative ideology and Roman Catholic value system. Thus the paradox is apparently resolved. This kind of resolution usually meant overlooking what he had to say in favour of the implications of what he might be saying, at least according to the critic. McLuhan's insistence that Marx was looking in the rear-view mirror infuriated his many neo-Marxist critics. In the eyes of critics such as Nairn, McLuhan posed a danger by becoming "a myth for our time." Carey (1967) wrote of McLuhanism having become a movement. Many critics thus resolved the paradox of McLuhan at the level of demystification of this purported ideological position.

One reason why this tactic of rejection by counter-themata of ideology seems particularly interesting is that the threat posed by McLuhan appears to reside in his critics' fear not that he is right, but that he might be believed. In Compton's discursive strategy, McLuhan's alleged flaws of character, or of mind, might have been harmless traits, but only so long as McLuhan stuck to his earlier pessimistic views about the prospects of

technology, and only so long as he stuck to audiences within his field of English literature. But now McLuhan had reached conclusions that resonated with a wider public via media and sales conventions. McLuhan's version of media and his claims for communications as a transformative agency in techno-cultural history might pose a serious threat to rival explanations of how the world worked by those who had another agenda. The question became, not as Wolfe had it, what if he is right, but what if he is believed? Within the rhetorical space of the controversy, the issue then turned in part on credibility, and called for ad hominem attack. For Compton, and for the many others who adopted similar rhetorical constructions of McLuhan as paradox or myth, his paradox could be explained by the perceived implications of his work, the lack of preferred values in it, or its illegitimate appeal within popular culture and for media workers who sought intellectual legitimation as well as power. The paradox--whether biographical, intellectual, or ideological--then can be resolved by offering counter-themata. This is where the thematic commitments of his critics against the backdrop of the times become important.

It is my contention that some variant of this structure of rhetorical response serves as ground for the forging of the negative academic consensus. This common positioning of McLuhan as paradox or myth helps to explain why the interpretations of McLuhan's meaning were so contradictory. The reason does not lie exclusively in his work, which I hold can be interpreted whole and in a manner sympathetic to his project. In the absence of a recognized tradition, after problemmatizing his work and persona as paradoxical, each critic could read his or her own agenda of thematic commitments into McLuhan. He became a projection screen for his critics' counter-themata.

Understanding this initial move is crucial to fathoming the way in which the Molten Period of response within the academy gave way to the forging of the negative consensus. The real question should be why McLuhan's pioneering insights were not further developed, and applied to specific projects with precision. The Molten Period witnessed a diversity of voices--journalists, teachers, academic and public intellectuals--expressing opinions pro and con on McLuhan and his ideas. He shook them up, and many thanked

him for this. Later in the decade, as a grimmer mood took hold--for many reasons, including Vietnam--McLuhan's playful work took on a darker tone, as did the culture at large. Read carefully, there are many fresh insights in his later Catalyst Phase books, *The Medium is the Massage* and *War and Peace in the Global Village*, and in the works of the last decade. From the perspective of the critics, however, the academic attack began to consolidate, especially on the part of those whose major concern was the study of communications, media, culture, technology, and popular culture. Many students were led to the study of communications and media as a result of McLuhan's work, yet extensions of his insights stalled. Compton, Nairn and Rosenthal were not alone in considering McLuhan dangerous. For academics, the greatest threat he posed was to the academy itself. This sense of McLuhan's paradox or myth as threatening also comes across in the texts of the key critics whose work was most influential in shaping the negative consensus. Following the next section, the discussion of the threat posed by McLuhan continues.

The forging of the negative academic consensus

The task in this section is to examine closely the rhetoric of appropriation and rejection (Holton) in those texts that can be identified in retrospect as playing significant roles in the forging of the negative academic consensus in the late 1960s up to 1975. This will be done by demonstrating how McLuhan was constructed as paradox and the nature of the counter-themata formulated by these authors in their responses. The thematic analysis of the texts of the authors selected discloses some or all of the four major counter-themata that (taken together) comprise the dominant rhetoric of rejection of McLuhan's work. Texts by James Carey, Donald Theall, Raymond Williams, and Jonathan Miller will be discussed narrowly and only insofar as these works and the counter-themata they exhibit bear on the forging of the negative academic consensus on McLuhan. The section to follow concludes Chapter 3 by discussing some implications of the McLuhan controversy for the question of the public intellectual and the battle between the media and the academy.

James Carey

After obtaining his Ph.D. from Illinois in 1963, James Carey became an assistant professor of journalism and an instructor at the Illinois Institute of Communications Research, where he specialized in studies of propaganda, television, and popular culture. Carey rose to prominence as a senior figure within the North American pantheon of humanistic communications, acting as Dean of Communications at the University of Illinois--a major Midwestern university where many in the field of communications were trained, including George Gerbner, Dallas Smythe, and Gertrude J. Robinson--and also serving on the boards of several communications research journals in the 1980s. During his distinguished career, Carey has brought a humanistic and historical sensibility to the study of communications. A talented essayist, Carey made his early reputation with his eloquent attacks on McLuhan. His first article of 1967, published in the *Antioch Review*, credited most of McLuhan's scholarship to Innis, and raised all of the major counter-themata that were to predominate against McLuhan. Unquestionably the single most influential academic article published on the communications history tradition, Carey's essay was reprinted in the 1968 *McLuhan: Pro and Con*. Taking up his subject again in a two-part series in the *American Scholar* in 1970 (with John Quirk), he placed McLuhan within the tradition of technological utopianism. Drawing on Leo Marx's *The Machine in the Garden* (1964), Carey coined the phrase "rhetoric of the electrical sublime" to categorize McLuhan's contribution. These three essays established the definitive interpretation on McLuhan within U.S. academic circles. In 1975, his paper, "Canadian Communications Theory: Extensions and Interpretations of Harold Innis", was published by McGill's Programme in Communications. As mentioned in the review of the rhetoric of intellectual controversy, Carey continued his attack on McLuhan over the years, always contrasting McLuhan's work unfavourably with that of another writers--from Lewis Mumford (1981) to Walter Benjamin (1987) to Walter Ong (1991). It can be said that Carey made a career specialty out of his antagonism toward McLuhan's position.

Attuned to new developments in the field of communications, Carey became a leading synthesizer and promoter of a uniquely North American amalgam of communications and cultural studies (1988). For these tasks, Carey incorporated many of McLuhan's insights. Credit, if given, was always paid to Innis or a figure other than McLuhan. Given his influence, it is particularly unfortunate that Carey's lacunae and distaste for McLuhan's contribution helped to forge the negative consensus that has only recently begin to shift. Perhaps the most ironic postscript on this contradiction was his series editor's use of a quote in the introduction to Carey's collected essays (1988, ix), taken from a letter to Carey (and used as this Chapter's introductory quotation) taken out of context and missing McLuhan's satirical intent.

Carey grasped early and clearly what McLuhan and Innis intended: a revolutionary new way of doing history, in which media and communications technologies were central and not incidental (Rosenthal 1969, 271). However, his grasp of McLuhan's work was shaky indeed. His interpretation prompted his conclusion that where Innis had made a bold and valuable contribution, McLuhan was misguided, dangerous and derivative. Carey, along with Kostelanetz, was one of the first to reduce McLuhan's work to a form of technological determinism, but even here Innis was a "soft" technological determinist and McLuhan a "hard" technological determinist (ibid., 272). This is the first of the major counter-themata raised against McLuhan.

Carey constructs McLuhan as a paradoxical set of inconsistencies: "while he is a serious critic of traditional logic and rationality, his argument is mechanistic, built upon linear causality, and illustrative of all the deficiencies of this type of analysis. His terminology is ill-defined and inconsistently used and maddeningly obtuse" (ibid., 291). Due to McLuhan's stylistic paradox, "one cannot tell what he is serious about and what is mere whimsy" (ibid.) To resolve this paradox, Carey asserts his influential argument that McLuhan was a student and disciple of Innis, who had taken Innis' pioneering insights in an unfortunate and regressive direction. (ibid., 294) Where Innis' sweeping narrative on history had taken account of economy and politics, empire and communications, and he

sees the principal effect of communications technology on social organization and culture, according to Carey, McLuhan had narrowed Innis' themes to the senses and social psychology, finding the chief effects on sensory organization and thought (ibid., 281). Carey purports to compare and judge which of the two arguments is more persuasive, and concludes on the basis of modest and dubious evidence that Innis was right, and McLuhan wrong: "the most visible effects of communications technology are on social [and not sensory] organization" (ibid., 293). Yet Carey admits what Holton would regard as a thematic commitment, when he states: "My preferences for Innis are partly aesthetic; they stem partly from a simple aversion to much of what McLuhan represents" (ibid., 294). He also predicts, wrongly I conclude, that Innis' argument will be "ultimately more productive of significant scholarship" (ibid.)

In this shallow appraisal of the relationship between the work of the two key members of the Toronto School of Communications, Carey laid the groundwork for an artificial separation of their contributions, and did not consider the prospect that both aspects of the theory, the social and the sensory, might be required. In effect, Innis was granted the political and moral sphere of the new theory of communications, while McLuhan was relegated to the personal and subjective. To accomplish this detachment manoeuvre, Carey links McLuhan's work to the Sapir-Whorf hypothesis, in effect invoking what he considers a flawed and overly general linguistic determinism. However, much as McLuhan may have shared Sapir and Whorf's important notion that language is deeply implicated in worldview, his understanding of language, perception and psychology was far more nuanced than this criticism suggests (McIlwraith 1994). Carey misses McLuhan's numerous sources in sensory psychology (discussed in Chapter 1), and his indisputable striving for precision of insight by combining the core dynamics (which offer a sophisticated version of human being and becoming in the world) with a diagnosis of the historiographic patterns. Carey goes on to misread McLuhan's rich classical use of the term grammar (e.g. ibid., 284) while producing an occasionally accurate version of McLuhan's notion of perceptual metamorphosis by means of the relations between

extensions and interiorization. The problem, however, is that Carey is intent on dismissing McLuhan, so that he fails to recognize the transformative quality of McLuhan's interpretation, instead misstating McLuhan's position as proposing "laws of perceptual determinism." McLuhan clearly intends to provoke his readers--academics or public--into awareness of the forces at play in the media environments we have made, and which in turn make us, so as to gain greater autonomy. In addition, and most seriously, Carey grossly misreads McLuhan to assume that he regards the audience as some sort of "black box" or "empty organism view of the self' and accuses him of espousing a naive tabula rasa Lockean view of perception and communication (ibid., 296). The most cursory review of McLuhan's notion of the active role of the senses, and of the audience refutes Carey's repetitive misdiagnosis of McLuhan's determinism. But it was not simply what McLuhan said that irritated Carey, it was how he said it, and the public impact that his ideas appeared to be having: the counter-themata of the rogue scholar. McLuhan as an intellectual is dangerous and appears beyond the criticism of academics because he is more than a social analyst, "he is also a prophet, a phenomenon, a happening, a social movement. His work has given rise to an ideology--mcluhanisme--and a mass movement producing seminars, clubs, art exhibits, and conferences in his name" (ibid., 291). For this reason, Carey is convinced that "a technical critique of McLuhan" is a useless undertaking, "analogous to criticizing Christianity by pointing out contradictions in the Bible" (ibid.) The religious metaphor also recurs in this essay, despite Carey's Roman Catholicism. In a move similar to that of Compton's, Carey acknowledged his strategic decision in the face of McLuhan's paradox: "the only criticism of McLuhan that can hope to be effective is one that admits the possibility of a system of values and meanings preferable to those implicit in McLuhan's work" (ibid., 303). On this basis, Carey felt justified in reading his counter-thema into McLuhan's work. McLuhan represents the triumph of the technical over the moral (ibid., 304). Carey makes the values he reads in explicit: "McLuhan thus represents a species of a secularized, religious determinism, a modern Calvinism that says, 'Everything is gonna be all right baby'" (ibid., 305). Again, Carey is determined to find a

spectrum of determinisms in McLuhan's work, and now raises another of the counter-themata: technological utopianism. It is "the quality of moral imagination" in the myth McLuhan offers for our time that Carey finds so troubling (ibid., 307). By strategically comparing McLuhan unfavourably with Innis, who addressed moral issues and questions of political and economic power, Carey could supply a narrative that amounted to an ideological critique. This became the dominant rhetoric of rejection on McLuhan. But there is more, for Carey finds McLuhan to be "utopian and mythical" (ibid., 304), and despite his protests, Carey charges McLuhan is an enemy of books and liberal rationalism (ibid.).

For Carey, instead of a traditional scholar, McLuhan was a "poet of technology" (ibid., 303) whose work "represents a secular prayer to technology, a magical incantation of the gods, designed to quell one's fears that, after all, the machines may be taking over" (ibid.). McLuhan's work "is designed to sharpen up the mindless and mundane world of popular culture which consumes so much of our lives and to blunt down the influence of modern technology on our personal existence" (ibid., 303). Now Carey seems to be making assumptions about passive audiences. Carey thus decisively demonstrates his and the common academic bias of the time against popular culture, which he identifies with McLuhan's work.

Throughout his essay, Carey supports the widespread rhetoric of academic rejection of McLuhan's ideas because of his unorthodox style, and in so doing, implicitly states the rules of expected academic conduct: "McLuhan has often argued that the attempt to analyze, classify and criticize scholarship--the intent of my paper--is not only illegitimate; it also represents the dead hand of an obsolete tradition of scholarship....But I am content to let history or something else be the judge of what is the proper or only method of scholarship, as I at least am uncomfortable pronouncing on such weighty matters (ibid., 270). On this rhetorical basis, McLuhan's scholarship is illegitimate, because he does not play by the rules of the game. McLuhan appeared immune to criticism, as Carey pointedly observed later in his essay: "If Robert Merton cannot dent his armor by pointing out

inconsistencies in his argument and lacunae in his observations, I'm quite sure that my own lesser luminosity shall have little effect on McLuhan or his devotees" (ibid., 291). Carey was outraged that McLuhan did not conform to the rules of expected academic conduct, as Carey's rhetoric of rejection asserted. For reasons of personal style, unwillingness to play by conventional academic rules, appeal to non-academic audiences, and non-linear mode of presentation, McLuhan seemed to Carey and others a threat. Carey thus helped forge the counter-themata of McLuhan as rogue scholar.

In his second major foray, with former Illinois student, John Quirk, Carey supplied a broader context within cultural and intellectual history for understanding McLuhan. This time his narrative placed McLuhan within a Euro-American tradition of technological utopians. Carey's objective was in part to expose the threat that McLuhan seemed to pose due to his hopefulness regarding technology, an optimism that seemed to Carey to have ideological implications. In a personal interview in 1990, Carey recalled that the political climate surrounding the Vietnam war made McLuhan's views seem conservative and ideologically suspect. To his critics, McLuhan's conservatism seemed to be confirmed by his rejection of a value-based critique, a stance that seemed to the left and right to signal a hidden agenda. In this essay, Carey's rhetoric on McLuhan was even more dismissive, and the narrative and counter-themata more fully developed. Carey and Quirk's second essay confirms another interpretative hypothesis: in the absence of a context in the Toronto School, McLuhan as paradoxical figure could be cast in a narrative of the critics' choice. Carey incorporated McLuhan within his narrative version of the history of technological utopianism, and McLuhan becomes a pretext for Carey's actual target. Carey declares that the first task for any opposition to the current power structure of communications is to "demythologize the rhetoric of the electronic sublime."

Carey's work thus laid the ground for all four major counter-themata: McLuhan as technological determinist; as utopian millennial optimist of technology; as rogue scholar; and to a lesser degree as enemy of the book and rationalism. He contributed directly to the forging of the negative academic consensus on McLuhan's work, and also to the

underestimation of its meaning and significance. An additional set back for communications history studies to which Carey contributed was that the similarities between the work of Innis and McLuhan were occluded in favour of his emphasis on their differences.

In a 1975 essay, Carey restated his views to a Canadian scholarly audience, and described Canadian communication theory as an arc running from Innis to McLuhan. He introduced his view memorably with Oscar Wilde's comment on Niagara Falls: "It would be more impressive if it ran the other way." Carey did his best to ensure that the tide was turned back.

Donald Theall

Donald Theall, a Yale graduate who prepared his doctorate under McLuhan at the University of Toronto, wrote *The Medium is the Rear View Mirror* (1971), another influential critique of McLuhan. The impact of this book reflected its author's proximity to McLuhan during the *Explorations* period, and grasp of the literary sources (particularly James Joyce) that shaped McLuhan's thinking. Theall became disenchanted with McLuhan and left the University of Toronto to teach English and Communications and to hold important administrative posts at various Canadian universities. Theall can be considered one of the major figures in the establishment of a scholarly field of communications in Canada.

Writing in the late 1980's Theall further developed certain of these insights and after tracing McLuhan's debt to James Joyce, a debt McLuhan consistently acknowledged, charged that "The irony of all the complex contradictions of Marshall McLuhan's variegated career apparently is that he failed to successfully communicate the insights of contemporary poetry and art to communications researchers." (1989, 46) For Theall, in his later comment it has as McLuhan observed "been unfortunate that many of those involved in communication and cultural studies have never read his works in relation to the history of art and literature from the 1880s to the 1960s" (46).

Theall expressed ambivalence regarding McLuhan's motives and contribution, but saw disappointed promise amidst the threat. His chief charges were twofold. On the threat side, he accused McLuhan of having no social theory, and harbouring crypto-Catholic conservative politics as a hidden agenda. On the disappointed promise side, he challenged the way in which McLuhan had moved away from his humanist roots, and, as previously noted, accused him of failing to encourage studies of James Joyce and the literary tradition which had given rise to his insights into new media and their effects on sensibilities. According to Theall, McLuhan's work promised a revivified humanist imagination; yet he became a positivist technological determinist with a conservative agenda once he moved away from literature. In his analysis, Theall used both the myth and paradox devices: "The very fact of McLuhan's central role as a cultural myth suggests that he is deeply involved in some essential problems which will reveal either something about the culture or something of lasting human insight" (1971, 5). Like his fellow critics, Theall found it necessary to adopt "some kind of paradoxical logic" to understand McLuhan. (ibid., 7). Theall finds the first paradox to be McLuhan's literary style. However, instead of the ridicule common to many of McLuhan's critics unfamiliar with the literary tradition that influenced McLuhan, Theall finds meaning in this paradox, which, citing Kenner, he compares to Flaubert, Joyce, and Beckett. Theall's contribution to the cumulative forging of the negative academic consensus lies in the fact that he was one of the few who could take up the challenge later issued by McLuhan that no one could take a serious interest in his work unless they were completely familiar with the works of James Joyce and the French Symbolists (*Letters* 1987, 506). Despite his appreciation for what McLuhan was up to, Theall supports a version of the counter-themata of the rogue scholar by observing that McLuhan, steeped in literary scholarship on the Renaissance, dogmatically says one thing and then equally dogmatically its opposite. Yet Theall also calls attention to the construction of McLuhan's aphorisms, which as Colie (1966) had observed, contradict the distinction between form and content, in order to force the mind to meditate upon the complex relations between medium and message. Along with many other critics, Theall

found McLuhan's paradox of literary style in the contradiction of expressing post Gutenberg ideas in printed book form. "There is the paradox in McLuhan's own work that such a stance is print oriented and therefore to some degree linear" (1971, 154). Of course, and here Theall is a rare exception, when this became less true, as in the typographical experiments such as *The Medium is the Massage*, most scholars responded with shock and horror.

McLuhan's unorthodox academic style gave rise to a further paradox, on an analogy to a clown or professional fool. Theall states: "At least metaphorically, the robes are academic, for McLuhan dresses his paradoxes and develops the material of his intellectual 'con game' out of a wide range of erudite sources which he uses in whatever way he sees fit and with a pose of superiority to those colleagues and thinkers with whom he does not agree" (ibid., 63). Here we find paradoxes within paradoxes, for Theall is questioning McLuhan's intention, production, the art and act of the put-on, and his rogue scholarship. Theall was aware of the lengthy tradition of the fool and trickster or con man in literature and mythology, an understanding later lost by less literary and more literal-minded critics who followed Theall's authority on McLuhan (Heyer 1988; *Wired* 1996). But Theall could claim authenticity in his backstage view of McLuhan's academic "con game." It is not surprising that following an initially positive response, McLuhan expressed anger over the book (Jeffrey/McAninch. Theall Interview 1989).

Theall illustrated the paradox of Roman Catholic literary influences by citing G. K. Chesterton, an acknowledged twentieth-century master of paradox who had influenced the young McLuhan. Theall continually, if often elliptically, returns to this theme of the paradox of McLuhan's personal commitment to Roman Catholicism despite his claims to a detached non-moral perspective (ibid., 45). Theall located another paradox in McLuhan's approach to history, calling this a paradox of historiography, or interpretation of history. Theall calls McLuhan's approach to history dialectical history, or a nineteenth-century point of view expressed in some naive and Romantic versions of Hegelianism (ibid., 39). Given that dialectic is elsewhere a term of approbation for Theall, certainly when applied

to Innis, it is at first not clear why this observation should be negative. It would seem that Theall's philosophical and political objection to McLuhan surfaces throughout his critique, in the charge that beneath the diversity diagnosed by McLuhan lay an underlying harmony of all contradictions, a harmony verging on totalitarianism. The "unity" that Giedion wrote about, that McLuhan wrote to Innis about in terms of patterns and formal qualities within various disciplines, arts, and inventions, that he expressed in "mimeo sheets" or "media logs" seems threatening to Theall, who senses orthodoxy not diversity. This interpretation seems consistent with another of Theall's perceived paradoxes in McLuhan, which he identified as "McLuhan politicus," namely "the paradox of a McLuhan who, while appealing to anarchist artists, or students of Norman Brown, might well contain an even stranger type of repression at the heart of his vision" (ibid., 61). This paradox is for a frustrated Theall a

> ...paradox at the heart of all McLuhan, and it is concerning this paradox that he never gives us a serious encounter or insight...The paradox is that he seems to say that we must strive for one mode, singleness (integration, unification, wholeness, call it what you will), to the entire exclusion of the other, division (doubleness, opposition, fragmentation, call it what you will). Though one suspects McLuhan's choice is theological, it is forbidden to mix the overtly theological, since it necessarily implies a value system, with the role as observer-participant at the centre of the vortex. (ibid., 193)

Theall's charge contradicts McLuhan's continual stress on the interplay that achieves harmonies in motion, or constant translation of senses, and metamorphosis of the dynamic life of forms. Over the balance of McLuhan's writings, harmony in diversity, paradoxical as the concept may seem, appears a more adequate interpretation of his meaning than homogeneous unity. Despite his critique, Theall found merit in McLuhan's work: "The very base from which McLuhan moved into a consideration of the mass media provides him with a unique quality of imagination to bring to the study of cultural objects. One of the simple reasons why McLuhan has come to be so important is the widespread lack of qualities of imagination" (ibid., 10). Where Carey had regretted the quality of McLuhan's moral imagination, Theall celebrates the literary and historical imagination that McLuhan brought to his work. Theall observes that metacommunications study, or what Theall calls

communications about communications, is bound up in the sort of paradox that he believes McLuhan exhibits. It is evident to Theall that full appreciation of McLuhan requires training in artistic sensibility, and some appreciation of McLuhan's sources, especially Joyce.

The negative academic consensus was not forged by the logic of its refutation, for most of the chief architects took distinctive and even contradictory perspectives; instead the consensus was achieved cumulatively and rhetorically. Theall brought authenticity to the process as an apostate graduate student once close to McLuhan, who turned his formidable literary knowledge against his former teacher. Theall's openness to the left-wing politics of his time also contributed to his receptiveness to the anti-McLuhan animus, and made him sensitive to the absence of concern over power in the foreground of McLuhan's work. Yet he recognized McLuhan's distinctiveness from Innis, and the value of the humanist legacy he brought to the study of media and communications. As he later acknowledged, Theall knew that McLuhan's work presumed the question of power as background, and understood also that his training predisposed him to bring his humanist training and study of art and its history into play in his approach while rejecting the behaviourist and positivist assumptions of the social scientists whose uninspired approach to communications had (according to McLuhan) led it nowhere. In addition, Theall's lifelong scholarly dedication to reviving the study of Joyce made him inordinately aware of the need for the task, an opportunity he believed McLuhan had been given, by dint of his talent or celebrity, and disappointment with the results.

Theall's insistence that McLuhan was a positivist and behaviourist reveals the operations of the counter-themata devised against McLuhan's work. It seems on the face of it an astonishing charge. While McLuhan believed that moral indignation hindered understanding media to make a leap from this observation to a charge of positivism, considering all that McLuhan wrote and Theall's own recognition of McLuhan's hermeneutic approach, seems a major distortion.

In a sense, this counter-themata matches William James' observation of the first stage of criticism of a new theory--namely, that it is not original. Where Carey personified McLuhan as the derivative disciple manqué of Innis. Theall found McLuhan to be a distant heir manqué to the legacy of James Joyce. Theall did give McLuhan some credit as an artist: first, by comparing his work to Addison, who (as McLuhan reported in *The Gutenberg Galaxy*) had invented an "equitone" prose to match the onset of the telegraph and mass press medium; second, extending this comparison, by crediting McLuhan with innovating the "essai concrete," a new hybrid prose form responsive to electronic media. Later, McLuhan seems to prefer "Menippean satire" as the description for his work.

Theall's contribution was also to suggest, in a brief note, that McLuhan's marginality was a key factor behind his ability to devise such an unorthodox approach to communications. Theall (1971) argued in his appendix that McLuhan's humanist values resulted from his marginal Canadian milieu which like any such milieu (such as Joyce's Ireland) could supply a tradition that would become the ground for "strategies for using artistic creativity as a means of social discovery and cultural scholarship" (ibid.). However, writes Theall, the humanist McLuhan must be disentangled from McLuhan the technological millennialist. The counter-themata of the technological millenialist surfaces in Theall's critique.

Restating his themes in 1975, in the same volume as James Carey, Theall summarized his earlier critique, now arguing that his book had intended "to extricate the 'humanist' values from the general 'technological determinism' which McLuhan developed" (1975, 15). By 1975, then, Theall's views had shifted closer to those of Carey: "[McLuhan] failed when he relinquished [his humanism and his aesthetic interpretation] by uncritically participating in the apocalypse of the electronic revolution which James Carey has so accurately described" (1975, 24). Theall had now embraced Carey's counter-themata of technological determinism and utopian optimism. He explains McLuhan's political stance, as he had implicitly in his book: "[I]t was associated with McLuhan's interpretation of the central role of the tradition of the Catholic Church and Catholic philosophy (traditional

cultural monopolies in Innis' sense of the term) in an understanding of the new world of `electronic communications'" (1975, 16). McLuhan is now a crypto-Catholic rogue scholar. This assertion is only convincing if one agrees that McLuhan has failed to keep his religion out of his media understanding. It fails if one concludes, as I have, that his conviction of the intelligibility of the universe, and insights into analogies and perceptual relationships, were fostered unquestionably by his religious faith, but that his writings on media are remarkably free from religious or political dogma. Theall's perception of McLuhan's threat seems exaggerated.

With the texts from Carey and Theall discussed so far the academic narrative within the rhetorical space of the McLuhan controversy in North America is already apparent: McLuhan moves from his humanist traditions into the new field of communications where as rogue scholar he beguiles with his non-academic adman style, and becomes a technological determinist and an electronic utopian speaking in tongues of the rhetoric of the electrical sublime in order to advance secret political and religious objectives

Jonathan Miller

British public intellectual Jonathan Miller's book-length appraisal of McLuhan, prepared for the "Masters of Modern Thought" series edited by Frank Kermode, reversed the author's previous favourable opinion of McLuhan's promise. He argued that McLuhan's naive agrarian pastoralism had indelibly shaped the development of his thought, a flaw which Miller traced to McLuhan's rustic Canadian prairie upbringing. Ironically, in 1995 Miller revealed that he had lied throughout his career about his birthplace in Western Canada. Miller had claimed Britain as his birthplace, whereas in fact his parents had moved there when he was very young. He had apparently been motivated to lie by an early encounter with a legendary editor of the *New Yorker* magazine, who claimed he would not accept any articles by Canadians because of his conviction that they were terminally boring.

Miller's second charge was that McLuhan was simply wrong. His work was also nonsense: although in the 1960s, it had seemed of the utmost importance, upon further reflection, Miller now found it to be insubstantial. Nevertheless--and this seems to be what infuriated McLuhan's critics to such frenzy of rhetorical excess--Miller wrote in an often cited passage (1971, 131): "For all the maddening slogans, paradoxes and puns; for all the gross breaches of intellectual etiquette-or perhaps even because of them all--McLuhan has forced us to attend to the various media through which we gain our knowledge of the world." Equivocal, duly recognizing the achievements of *The Mechanical Bride* and *Explorations*, he concludes: "Perhaps McLuhan has accomplished the greatest paradox of all, creating the possibility of truth by shocking us all with a gigantic system of lies" (ibid., 132). Softening this harsh conclusion, he then cited Kenner on Chesterton's paradox and linked the "rhetorical purpose" of each "to overcome the mental inertia of human beings" (ibid., 132). Thus Miller begrudgingly recognizes McLuhan's role in generating attention for media effects.

An infuriated McLuhan responded ineffectively in *The Times Literary Supplement*, with the help of Barrington Nevitt. Miller defended himself. Kermode (with whom McLuhan corresponded regarding his outrage) reported that Miller had experienced a conversion in his reading of McLuhan. However, the more serious point made by Miller was similar to the one made by Theall, but without the literary edge. McLuhan was ultimately a put-on, a fraud. His ideas were exhilarating but evaporated.

Miller saw multiple senses of paradox in McLuhan, both as man and in his work. He could not shake the sense that McLuhan was onto something and had convened a neglected debate. Miller's book ends with a lengthy quotation on the function of paradox to lead the mind to meditate on its own operations. This appeared to be as far as the academy was able to grant McLuhan credence at this time: He had paradoxically given them something to think about, though just what no one was prepared to say with certainty. McLuhan was dismissed, and the public intellectuals could move onto the next topic.

Raymond Williams

Both McLuhan and Williams were Cambridge graduates, who had studied under Leavis. Williams was well known as a neo-Marxist literary scholar, particularly for his work, *Culture and Society,* which McLuhan had cited approvingly in *The Gutenberg Galaxy*. Williams had published a book in 1962 entitled *Communications*--largely a conventional Marxist literary treatment of the subject, destined to be substantially rewritten in subsequent years (1966, 1976). His influence stemmed largely from his founding presence within British Cultural Studies, which became in turn an enormously influential school of thought within North American media, culture, and communications studies.

On first encounter, Williams responded positively to McLuhan, writing a review for the *University of Toronto Quarterly* (April 1964) on *The Gutenberg Galaxy* (Stearn *Hot and Cool* 188*)*. Williams saw paradox on first appreciation of McLuhan's insights: "Paradoxically, if the book works it to some extent annihilates itself" (ibid. 189). Thoughtfully critical, Williams notes, "I regard McLuhan as one of the very few men capable of significant contribution to the problems of advanced communication theory, and *The Gutenberg Galaxy* as a wholly indispensable book" (ibid., 191).

By the 1970s, after the publication of *Understanding Media, The Medium is the Massage* and *War and Peace in the Global Village*,[35] Williams had changed his views. In *Television: Technology and Cultural Form* (1974), he developed a neo-Marxist ideological critique of McLuhan. Williams dismissed McLuhan as an ideological agent of the worst sort. For the neo-Marxists McLuhan represented a very direct threat to their version of history, and they were quick to respond. The line of neo-Marxist thinking which emerged in Great Britain under the banner of Cultural Studies took its early cue in response to McLuhan from the work of Williams. The dilemma for neo-Marxists was that their views of popular culture, and determinism were under

attack, and Cultural Studies represented a fresh approach to these topics. As the Birmingham School was imported into North America, the anti-McLuhan animus came along also. One of the major figures in the importation of cultural studies, and development of a North American tradition, was James Carey. Thus it was predictable that McLuhan's ideas would receive an unsympathetic reception.

Williams would become canonized as a central figure in the emerging neo-Marxist pantheon of communications media studies. When *Television: Technology and Cultural Form* appeared, Williams attacked McLuhan's apparently sophisticated version of technological determinism, although he predicted inaccurately that McLuhan's formulations would not last long (1974, 128). Where Theall had criticized McLuhan for lacking a social theory, Williams demonized him for the one he read into McLuhan's work. McLuhan's new theory was, according to Williams, "explicitly ideological" (ibid., 126): "Thus what began as pure formalism, and as speculation on human essence, ends as operative social theory and practice, in the heartland of the most dominative and aggressive communications institutions in the world" (ibid., 128). The reduction of McLuhan's arguments to a species of technological determinism and construction of his persona as politically and ideologically incorrect gained major impetus with the publication of Williams' book.

Later, in *Problems in Materialism and Culture* (1980, 50), Williams raised the thematic commitments clearly from the neo-Marxist vantage: "As a matter of general theory it is useful to recognize that means of communication are themselves means of production." However there were three blocks to succeeding with this theoretical view of the means of communication within the perspective of "historical materialism." The ideas of McLuhan were one of those blocks. Again Williams identified McLuhan with technological determinism, this time also linking the "global village" to the religious undertones of "unfallen" natural man (ibid., 52). As Schlesinger had correctly surmised, McLuhan posed a threat to the neo-Marxists.

John Fekete

Williams' line of criticism was similar in tone to that of the then unpublished doctoral thesis of one of his students, Canadian John Fekete. In *The Critical Twilight: Explorations in the Ideology of Anglo-American Literary Theory from Eliot to McLuhan* (1977), which is included in Williams' selected bibliography, Fekete writes: "McLuhan's mature critical theory, I would argue, will best be understood as the bourgeois ideological form of the main tendencies characterizing the manipulative and hegemonic structural modifications of the post war period. In this capacity, it has been able to become a powerful ideological construction" (1977, 136). Fekete's argument is that McLuhan should be understood in terms of "a material basis for a renewal of Catholic ideology" along the lines Weber had analysed for an earlier period of the formation of capitalism: "Just as Protestantism could emerge as the religious form of classical capitalist accumulation, so today it is the development of neo-Capitalism that is ideologically favourable to corporatist and ritualistic religions and that provides a basis to account for the adequacy of McLuhan's theory as a chief contemporary cultural ideology" (ibid., 251, n.4).

As a Masters student under Theall at McGill, Fekete's work at that time had stressed what he called McLuhan's "fetishism of technological determinism." McLuhan called media magic, and his argument revolved around an urgent call for the necessity to comprehend the alchemy of social change, via comprehension of media forms. Fekete's concern lay with the mythical and ideological nature of McLuhan's "fetishism."

During the 1970s and 1980s, Fekete's critique of McLuhan had an impact on the stance of the "new left," which is well represented in the field of communications and cultural studies. *The Critical Twilight* was subsequently adopted and cited by neo-Marxist communications scholars, such as Douglas Kellner (1985). Despite his often insightful and careful reading of McLuhan, Fekete's work represents the nadir of the trivialization, reductionism, and demonization ("McLuhanacy") expressed in portentous and insider jargon designed for a tiny elite. Into McLuhan's texts, which he hailed as the end of the

line for the Western pantheon of literary criticism, Fekete read his own ideological counter-themata. McLuhan is a formalist in Fekete's terms. This point, obvious at one level, becomes curiously static in Fekete's rendering, and misses the dynamism of McLuhan's theory of mediamorphosis. Fekete's analysis is marred by the conceptual framework imported into his work which is utterly foreign to McLuhan's texts. The book relies heavily on Marcuse's (1964) *One Dimensional Man*, and other Marxist works of the day. Much of his argument revolves around the ideological threat posed by McLuhan. Fekete sets up McLuhan's paradox within the Anglo-American literary tradition. In a recurring phrase he refers to the "technocratic ideology of one-dimensionality" (ibid., 164). The conception of sensory extension is central to the whole theory, says Fekete. This seems correct but incomplete, since McLuhan's dynamic involves extension, creation of environment, interiorization, and flip into new form, which Fekete may reject as an analysis but which is not reducible to one reified phase of its perpetual motion. McLuhan's argument is not so one-dimensional.

Fekete (ibid., 167) finds in McLuhan's theory "the specific technocratic cultural ideology of neo-capitalist one-dimensionality. The extension theory as a whole", Fekete charges, is once again a projection from aesthetics into social analysis, a projection of anthropomorphism." Fekete observes that McLuhan offers an "anthropomorphic theory, which considers technology to be an immediate human extension" instead of "a genuine theoretical elaboration of the relations between a historical society and its technology" that would "take note of the reified nature of those relations in the present society" (ibid., 168). One looks in vain amidst the jargon however for a deeper and humane counter-analysis that would supply the basis for such a genuine theory. Fekete challenges McLuhan's lack of solutions. McLuhan's discussion of the citadel of intellect, and the way in which the amateur must become an artist, or media should be treated as a diet do not resolve these large problems. The difficulty, as was evident with Carey and Theall, is that McLuhan's critics seem filled with rage at the "problem" of media and technology, but curiously impotent to do anything about it. It is more convenient to attack McLuhan.

Fekete recognizes the complexity of McLuhan's paradox: "the specific unity of the theory resides exactly in the integration of all these aspects. Like the social features it expresses, McLuhan's critical theory is an idealist materialism, a humanist anti-humanism, an immanent transcendentalism." Most seriously,

> "The prominent ideological pillar of McLuhan's theory is, of course, the fetish of technology, the reduction of the totality of a structured social formation to a technological environment that is postulated, not as a moment of, but as the exhaustive determinant of the life activity of a society." (ibid., 180)

This charge seems curiously misplaced. In effect, here is the charge of technological determinism played out on a grand scale and juxtaposed within the counter-themata of Marxism: "This substitution of a type of ecological theory for social theory is not only a vulgar reduction of a complex reality to the transparent simplicity of a single social factor, but also a reified projection of history as a lawful natural order" (ibid., 182). It is interesting that the veiled threat posed here is to the faith of Marxism, and its determinism of the laws of history, no matter how disguised by a humanist veneer. Fekete observes:

> McLuhan...abstracts technology from the social production and reproduction of human life and asserts its autonomy; it becomes a transcendent force in human life. It is this transcendence to which I want to draw attention here, for in McLuhan's theory, technologism effectively becomes a secular religion. The traditional religious foliage merely masks (while reinforcing) this real religious core of the theory. (183)

The counter-themata of McLuhan as master of the secular religion of technology surfaces in Fekete, rather than the interplay between technology and the perceptual life as mediated in culture, that seems readily evident in McLuhan's works. Fekete expresses the neo-Marxist duty to respond to McLuhan: "once [McLuhan's] isolated insights, like technical military successes, are situated in the overall patterns to which they contribute, and by which their function is shaped and distorted, they can be seen as moments of a counterrevolutionary totality" (ibid., 187). Yet another charge is that "while directing attention to an important problem, McLuhan has simultaneously blocked access to it." Unlike Carey, who argued that methodological critique would not succeed, Fekete takes

on exactly this task. However, I argue, he can only do so because the negative academic consensus had been forged by this point, and he knows that he must do so because of McLuhan's threat in offering an alternative version (a counter-themata) to a Marxist narrative on the dynamics of history. Fekete argues: "Communication cannot be separated from the matrix of power in which it is embedded" (ibid..,189). This is a point that will be conceded by many, although not in the direction Fekete intends, but rather, in a direction that could be remedied within the Canadian communications history tradition once McLuhan and Innis are reunited.

Fekete's critique ends in faith of another sort: "In contrast to McLuhan, we may insist that reified passivity is not necessary to technology, and that a genuinely new period in human history has not yet begun, but begins only with a qualitative break in the continuity of capital and, more broadly, of domination."

The rhetorical space of the McLuhan controversy

These negative attacks contradict one another (Curtis 1978; Jeffrey 1989; MacMillan 1992). Upon re-reading McLuhan, as discussed in Chapter 1, I maintain that the criticism cannot sustain the orthodox rejection of McLuhan's work. Yet taken together, these four architects played complementary roles. By clarifying these manoeuvres, I hope to disentangle McLuhan's themes from the controversy he provoked, and to distinguish the heat from the light.

The first charge was technological determinism. In Carey's critique, the accusation of technological determinism became resonant within U.S. history. In William's hands, it became an ideological weapon. For Theall, it became the path McLuhan wandered off onto when he shifted from his humanist values. McLuhan had said from the outset that his aim was to diagnose the current conditions so that conscious response might be organized. McLuhan's work cannot be reduced to technological determinism, but the reasons for his vulnerability to this charge seems evident: his concept of power differed from that of his critics because his interest lay in the power of media forms to impose their assumptions.

One problem was that he did not have a clear answer to the question of what should be done about what he had diagnosed in the current conditions. His answers varied: everyone must become an artist; counter-environments must be created; media environments should be turned up and down like a thermostat. His contribution was to point out what was going on so that it might be predicted and controlled; however this position left his critics unconvinced. Nor did he have clear politics. Opposed to utopias and more interested in literary satire, the later Fekete's characterisation of him as a "civic humanist" holds much truth. He admired men of action, and preferred Roman Catholics. Like Machiavelli, a courtier role seemed consistent with his view of the intellectual as one who brings ideas to the public sphere: he wanted to be a man of action, and wanted his ideas to be useful. He ended up ambivalently in the academy, and his ideas about an educational program were so broad in scope and lacking in precision that they were difficult to put into pragmatic form.

The charge of technological determinism as a secular religion had staying power, but can be viewed differently once one considers that the university may represent a sort of clerisy. Who were to be the high-minded priests of this new environment? Who would see through the false consciousness of the ideologues and false prophets?

The second charge was the McLuhan was an enemy of the book and print culture. The epithets flew when it came to identifying of McLuhan as champion of the "electronic call girl" (as White put it). The book was the bedrock of the academy. Not until later with Postman did the scholars take this charge up with a historical interpretation. What appeared to take place in the debate that contributed to the negative consensus was that McLuhan appeared to be the enemy of print logic and consequently the values on which Western Civilization was built, and on the side of the new sophists, champions of the rhetoric of the electronic sublime. The university came to represent the church of the book, logic, and reason. Thus the ancient quarrel of the trivium was reinscribed with McLuhan caught in the middle.

Third, McLuhan was cast as rogue scholar, and this represented a grab bag of threats to the academy. The major themes that propped up this position included his association with media promotion, marginality, an adman's style, performative and oral style instead of proper publishing all of which worked against him in the camp of the academics. His oracular style, prose style, lack of peer review, and footnotes, aggressive attitude, and celebrity challenged expectations. Throughout these accounts ran assumptions, both implicit and explicit, on the models of the proper tasks of an academic, and the rules of conduct and rationality. Media threatened the academy. McLuhan was hailed as an oracle by the media and his pronouncements had attracted widespread attention. Who did he think he was, anyway? In this way McLuhan threatened the normal operations of scholarship. McLuhan seemed to write himself out of the scholarly circle.

Was this a new form of the humanities? In posing a threat to conventional scholarship, McLuhan tested the limits of humanist experimentation. Recall McLuhan's reaction upon reading Kuhn. He was not fooled into thinking that science offered a route to revolutionary insight, for, as he concluded from his reading, no scientist had ever set out to rock the establishment boat. For a man so often accused of sinister conservatism, McLuhan continued to identify his position with the outlaw artists who had been so influential in his thinking. Yet nothing bothered his critics more than that he did not play by the conventional rules of scholarship. He had paid his dues, but in literary criticism, not in empirical social science. The narrative or morality fable that was constructed around the persona of McLuhan as a "rogue scholar" seized upon McLuhan's experimental texts, his deliberate refusal to abide by the conventions of orthodox scholarship, his claim to be one of the few who comprehended what was going on during this tumultuous period, and success at promoting his ideas to an audience outside the academy. These were prime motivators for this rhetoric of rejection, which amounted to a tactic of demonization. Yet despite the negative consensus within the academy, McLuhan's ideas and themes were incorporated by his critics in a scenario that might be thought of as academic cannibalism. In the designation of McLuhan as rogue scholar, the academy indirectly articulated the

rules of conduct for proper scholarship. Yet by appropriating McLuhan's ideas, the academy indicated how much would be lost without McLuhan's contribution.

This task of constructing a narrative of the rogue scholar was made easier because of the celebrated identification of McLuhan's scholarship with the lowly and despised topic of popular media--notably television--and because of his willingness to promote his ideas through media. Again it can be witnessed that the ancient quarrel between philosophy and rhetoric was revived in this intellectual controversy. This time the institutions of academia and media were positioned in opposition to each other, with academia taking on the mantle of logic, and McLuhan and the electric media charged with the sins of sophistry. Reflection upon the implications of this case study of McLuhan prompts further questioning regarding the changing roles and responsibilities of educators, and public and academic intellectuals, in a media saturated age.[36]

After committing all these apparent transgression, it is no wonder that he was excommunicated from the church of the academy. A central paradox is thus revealed: the real secular religion of science with its rhetorical and academic rules of conduct and procedure. McLuhan's subject matter media, and his role on the margins without an institutional school, rendered him defenseless in this situation. Scrutiny of the rhetorical space in which the reception for McLuhan's assertions unfolded has helped to clarify this event of McLuhanism, and directed attention to the curious fragmentation of his corpus of ideas as this fierce contest played itself out. This conclusion supports the hypothesis that the controversy pitted the media against the academy as rivals, with the latter resisting the eclipse of its power and influence?

The final counter-themata that emerged from this analysis was the refutation by ideological critique, a dominant lines of rejection taken by many of the serious critics of McLuhan, including William, Carey, Theall and Fekete. By the 1990s, this line of rejection would be restated by dismissing McLuhan's as part of "an ideology of the late bourgeois era" (Ferguson 1991:87). The clue to the paradox of response to McLuhan is threat. In the middle sixties, McLuhan put the study of mass communications media as an agent of

cultural change on the agenda for public reflection. Communications and mass media, considered broadly as powerful forces for cultural change, presented a terra incognita for social theorists, historians, social scientists, and humanists alike; this was so because, as McLuhan delighted in observing, these theorists had mostly ignored the shaping power of media in favour of content analysis. In the 1960s, part of the contest was over who would claim to interpret this contested terrain, and who would make their version stick. Certain outmoded assumptions about audience response are at work here, such as the notion of audience victims and dupes of Madison Avenue. Media provided a common culture, which in the 1960s both left and right found threatening.

That McLuhan elected to champion the view that--whatever his private opinions--the point was to study the consequences of media and technologies of communications, not to condemn them without scrutiny, nor to assume that the only limits to our power over media lie in what we intend to do with them, counted against him in the academic camp. That he preferred to look to both high arts and popular culture for clues to penetrate the meaning of the situation, seemed ludicrous to many. That he continuously reworked his discoveries in an attempt to convey his insights to audiences, subverted academic norms of consistency and proper style. That he consistently ridiculed the experts and encouraged amateurs, especially the young, to join in the exploration of media effects, dismayed his colleagues. That he succeeded in reaching audiences, seemed to represent a flagrant example of the bypassing of conventional academic control over the validation of authoritative knowledge. That the media cooperated in his ability to reach the public--albeit independently of his direction, further infuriated his critics. If the gatekeepers could not control the flow of authoritative ideas, English-speaking civilization as we know it might be flushed away on a tide of popular media.

The narrowing of his views cannot be solely attributed to the simplifications of popular media; the academy, as demonstrated also played their part. The aim seems to have been to continue to divide the academic from the popular, public intellectuals from those within the academy, the marketplace of ideas from the hallowed halls. Taken as a whole, these

rhetorical tactics disclose the nature of the threat McLuhan represented to his contemporaries: his assertion of the significance of dominant media and technologies as crucial--neither incidental nor exclusive--agencies of cultural transformation. This account threatened rival accounts of social, political, and economic change. This is the electronic and print world of scholarship in collision. Whatever McLuhan had intended, he became caught up--as persona and public intellectual--in a collision between popular and elite scholarly monopolies of knowledge on understanding media.

The academic response to McLuhan and his ideas raises serious questions regarding the academy's willingness and ability to consider unorthodox and potentially productive approaches to understanding the multifaceted power of media, particularly the complex and threatening question of electronic and commercial media. The reaction to McLuhan, and the inability of the academy to eliminate his ideas from the culture at large, confirms that there are limits to the academy's power to impose a monopoly of knowledge on the media and the question of its understanding. This battle also has sociological dimensions. National origin and background contribute to the paradox of response to McLuhan, as both Carey and Theall proposed, and as is implicit in Miller's response. Despite this sympathies for Canadian scholarship, Carey's influential critique demonstrates the continuing control by U.S. academicians of legitimation in North America. The media permit a jumping over the gatekeepers and out of the backwaters, and did for a time in the McLuhan's case. Then an initially tribe of academics set out to enforce the rules of proper conduct. The fear of secular religion may be a fear of the power of media linked to popular culture.

McLuhan was "mediagenic" in part because of the controversy. Media need a subject, and ideas are only part of what that "something" might be. McLuhan was cast as the intellectual with entertainment value. His comments--delivered in a flat "is this not obvious" tone--were insightful but considered above the average intelligence of television's usual fare at this time. Once one needed to fill in too many audience members about who McLuhan was, he became less of interest. The ambivalent and often overwrought response

to McLuhan's work and persona also echoed growing cultural anxiety over the impacts of the newer media and increasingly pervasive technologies with which his name was linked. Technological determinism finds a resonant ground in an anxious academy. Yet his ideas--fragmented and uprooted from their context in his work and tradition--live on. This situation confirms that there are limits to the academy's power to impose a monopoly of knowledge on the question of understanding media. The popular enthusiasm for his ideas has faded, although memorialized in the Oxford English Dictionary. A revival is under way as a younger generation of scholars emerges, as the power of intellectuals in the media, with little or no allegiance to the academy, continues to grow and the rate of change and cultural impacts of new generations of media continue to accelerate.

This case study concludes that the consequence of this intense pressure between the tectonic forces of media and academia is that McLuhan as intellectual, as originator of a set of ideas, and as pop cultural icon is irredeemably fragmented. Jacoby argued (1987, 232-33): "The long view suggests that intellectual work has been recast; and this means intellectuals have been recast in the way they live and function....The transformation of the traditional intellectual habitat is not instantaneous; it parallels the decay of cities, the growth of the suburbs, and the expansion of the universities." But he continues (234) his argument, observing that the key here lies in changing notions of the public and of the role of the intellectual. I suggest the key lies rather in the emergence of a rival to the academy for authority and power, and that rival was the institutions surrounding and constituting media and the culture which shaped it. As McLuhan argued, no more successful program of education could have been imagined.

This is part of an updated ancient quarrel, a turf war between media and academy with many side battles underway. The rhetoric of intellectual controversy is particularly important within the human sciences, where central concepts frequently are "essentially contested" (Gallie in Connolly 1981), which means that, like Holton's thematic commitments, they cannot be resolved conclusively by appeal to empirical or analytic domains. Of course, this way of phrasing matters draws attention to longstanding debates

between positivism (and the heirs to Comte) and hermeneutics, social constructivism, and the diverse group of approaches that consider interpretation fundamental to the human sciences. This debate goes under many names. Rhetoric is irrelevant in to the positivist model, whereas for a constructivist model, it is an essential ingredient of scientific inquiry and debate. "Facts" are waiting to be discovered in the former view, and do not exist without interpretation in the latter. Thus rhetoric is found to have either an ornamental or a primary role in the conflicts among intellectuals and their tribes.

McLuhan's contribution to this debate was to broaden the hermeneutic position beyond language to the techno-cultural sphere, and thus to incorporate the formal shaping powers of any medium, conceived as an extension of ourselves, our senses, and in their plurality as an environment.The demonization of McLuhan by the academy may have had the effect of repressing certain types of investigation. Some conjectures cannot be resolved by reference to the "evidence" because what counts as evidence depends upon the fundamental assumptions that are accepted by a rhetorical community; likewise some important questions that should be asked, such as questions regarding the long term shaping impacts of media, may not get asked because they are ruled out. Within communications, McLuhan's message is in part that acceptable evidence spans all disciplines. The case of McLuhan also calls attention to the changing role of intellectuals within a twentieth-century environment of pervasive electronic media, which may alter the operations of networks and "invisible colleges" in ways not yet fully accounted for by the academy nor appreciated in histories of ideas and culture. Public and media intellectuals--in other words, those whose ideas circulate and whose images as intellectuals confer a celebrity status--pose a fresh set of problems for the epistemology of a media-saturated age. Andrew Wernick's point regarding McLuhan seems well taken in this context: "The price of such an amplified celebrityhood can be the loss of purely professional esteem" (1991, 176). This point will be taken up next, in the final discussion.

A Final Discussion on Public Intellectuals

Both rhetorically and sociologically, I have argued that McLuhan as intellectual and persona appears to have been caught up in a conflict over power and influence between the media and academia. The unfortunate result has been that scholars and students have been discouraged from reading his work and continuing his explorations. Those who have persevered have often lacked the context that would render his work most meaningful and thus most useful. Understanding of his work and the application of his ideas has been permanently fragmented by the force of the collision.

The tactics used to dismiss McLuhan and his iconoclastic contribution may be more common to humanities and social scientific scholarly practice than is usually admitted. In elucidating the McLuhan controversy, and drawing out the larger implications of this case study for the rhetoric of inquiry in the human sciences and the role of the public intellectual, discovery of a historical parallel with the work of the turn-of-the-century sociologist, Georg Simmel (1858-1918)[37] has proven instructive in that it opens up the general question of the operation of rhetorical tactics within the human sciences. At the substantive level, I intend no direct comparison between these pioneers of sociology and of communications.

Like McLuhan's transformative media theory, Simmel's sociology served the sociological community as a "focal point of controversy" at the turn of the century. As Novak observes, the chief criticism of Simmel's contribution was that his work was unsystematic:

> So, for these readers, Simmel's brilliance, his flashy insights, his creative provocative talk all distract us from the importance of systematization. Critics, then, through their reference to the importance of systematization and order, serve to reiterate and reintroduce into sociological memory that which is lacking in Simmel's work. They thereby serve as guides who warn sociologists from the siren's song of Simmel's speech. (Ray 1991, 5)

Novak points out that the critics take an active role in constructing Simmel as figure, with the following result: "At the hands of many of his colleagues, Simmel was transformed into an icon, an example of a brilliant mind gone astray. This criticism, however, did not simply represent a benign rejection of Simmel's views; rather, as [Max]

Weber noted at the time, many of Simmel's colleagues expressed inexplicable animosity toward Simmel's ideas'"(ibid.). McLuhan as paradoxical icon encountered a similar fate.

Like McLuhan, Simmel's transgressions against science are linked (by Durkheim among others) to his transgressions against the academic community (ibid., 7). Novak concludes that what Simmel's critics accused him of defying was the proper use of speech, meaning "the unquestionable rule of the [sociological] community over speech" which should lead to "progress, order, and community solidarity". By contrast, Simmel exhibits "a philosophical freedom that mocks the discipline of the scientific community and its obedient membership" (ibid.).

Simmel's other transgressions, as discussed by Novak, also assist our understanding of the academic response to McLuhan: "Simmel clearly invites the reader to consider a 'plurality of possible interpretations' rather than adhere to a single concretized version that will necessarily betray the nature of language itself" (ibid., 8). Although a gifted writer, he "stubbornly refused to write 'correctly'" (ibid., 9). Many consequences resulted from this stance. Simmel was denied recognition by the academy and the university where he taught (ibid.). In arguing for a new reading of Simmel, Novak suggests that Simmel's speech and writings be read as an ironic commentary on academic chauvinism (ibid., 10), a stance which "attacks the myth of social science which claims it is a neutral, benign, democratic community of scholars" (ibid.). Novak demonstrates that the criticism raised against Simmel is based on a positivistic, scientized conception of social science. He concludes:

> In the past, sociologists have often come to Simmel's work with an intention of dismembering his studies, of holding them to scientistic criteria of adequacy, or of harnessing these generative studies to the plow of progressive positivist social science; but Simmel's work can also, as he suggests, serve as a creative occasion to begin a sociological exploration of our own condition, to re-form ourselves and our world. (ibid., 12)

Axelrod discovers a mode of rationality in the ambivalent response of the scientific community toward Simmel's work, an ambivalence which ensures that Simmel cannot be understood on his own terms, but instead, must remain peripheral or an outright failure

(1991;156). The chief charges brought against Simmel are that his work is fragmented, unsystematic, disconnected, even if often subtle and brilliant (ibid.). Axelrod comments on this sanitized version of the practice of social science, in terms applicable to both McLuhan and Simmel:

> [W]hat is most curious about this criticism is that the critics feel no obligation to formulate the standard by which they criticize Simmel's work....To Simmel's critics, fragmentation or disunity is immediately recognizable as negative characteristics in scientific work to such an extent that no further explanation for rejection is required. In other words, fragmentation is by its very nature a failure, and objectively visible unification is considered a fundamental necessity of scientific work. (ibid., 157)

Axelrod unmasks this approach to fragmentation in order to understand more fully "the grounds upon which normal science rests, that is, the grounds of the community in which Simmel participates as an author" (ibid.). In effect, using fragmentation as a thematic, Axelrod and Novak manage to open the issue of what constitutes normal science within the human and social sciences. Axelrod uncovers the deeper issue at stake--namely, a version of rationality--which underpins the negative appraisal of Simmel, and observes that Simmel regarded the fragmentary quality of his work (of which he was well aware) as a necessity, given his conviction that "nothing more can be attempted than to establish the beginning and the direction of an infinitely long road [because]--the pretension of any systematic and definitive completeness would be, at least, a self-illusion" (ibid., 164). Like McLuhan, Simmel's unorthodox style was deliberate and integral, not incidental to his meaning. McLuhan's analysis of this critical situation of course would locate the source of the problem in the bias of communications that rendered science transfixed by its print orientation.

Axelrod concludes that speech which claims to be deliberately fragmented and unsystematic violates the injunction to unify the community of practitioners, or to work within or towards a "community-sponsored paradigm" (ibid., 158). Such an injunction discourages members from questioning or addressing the grounds of the paradigm itself (ibid.). Not playing by the rules while engaging in ironic and fundamental questioning is

regarded as an attack on the community. Thus, Simmel the outsider "is seen as the enemy of concerted inquiry and fragmentation becomes a metaphor for nihilism and intellectual anarchy" (ibid., 159).

Lewis Coser's analysis of Simmel's style provides an important clue raised by this case study of McLuhan as to how to evaluate the scholar who desires to reach popular audiences. Acknowledging the longstanding resistance of the academy to those among their members who stress teaching (which is oral) over research (which is published), Coser concludes that Simmel favoured teaching, "in terms of the brilliance of his performance, the novelty of his ideas, and the ability to fascinate," as opposed to the "systematic and methodical gathering of evidence and [the] disciplined pursuit of painstaking research endeavours" (Ray 1991, 141).

Like McLuhan, Simmel as public intellectual and educator attracted and fascinated diverse audiences of students, foreigners, intellectuals from publishing, journalism, the arts, and members of 'society' in search of intellectual stimulation. Many of his lectures were public events, written up in the dominant medium of the day, the newspaper (ibid.). Coser notes that while the popular lecturer may offend his academic colleagues, he may, simultaneously, gain the approval of a wider audience. Simmel cared about audience reaction and worked to achieve it (ibid., 142). His writings were, according to Coser, related to his oral style of delivery, and contained features designed to appeal to audiences. In fact, Coser demonstrates that Simmel published more articles and essays in non-scholarly journals "destined for a wider cultivated public such as liberal newspapers, art magazines, and literary monthlies" (ibid.).

Coser argues that Simmel addressed two publics, inside and outside the academy, and that the more he addressed himself to a general audience, the more disapproval he obtained from his academic colleagues (ibid.). Coser concludes on this point: "His auxiliary status in the academy exerted pressure on him to find a supportive audience at the margin of the academy, and the attempt to live up to their expectations which he had provoked involved him in a further process of alienation from the demands of the

academy....He could afford to maintain such a difficult marginal role because he found support and encouragement among his non-academic listeners" (ibid., 143). Coser adds a provocative note directly relevant to the case of McLuhan, in which he hypothesizes "an interactive process between Simmel and the lay audience, with the publishers acting as intermediaries" (ibid.). By this he means that as Simmel became well known outside the academy, non-scholarly publishers invited him to publish with them, so that rather than exercising his own initiative in seeking out non-scholarly audiences, these agents of the audience sought him out. Thus his popular reputation increased, while his scholarly status declined.

Simmel's deliberate ambiguity made him vulnerable to his critics.[38] In the case of McLuhan, the deliberate ambiguity of his style also made his work vulnerable to his critics; when he invited the reader to participate in making meaning, his critics obliged by projecting their own counter-themata onto his texts. In frustration at his unwillingness to conform to the norms of conventional scholarship, they attempted to read him out of the academy. McLuhan as a paradoxical intellectual figure chose to embrace rather than to deny the ambiguities of his complex subject matter, media. In retrospect, it would appear that he grasped (as Don Theall saw) a paradox central to the process of communications.

The parallel with Simmel sheds light on the rhetorical tactics practiced by the academy with respect to an public academic intellectual who reaches general audiences. More recently, a case in point surfaced that indicates that these rhetorical tactics that were in play with the humanist, McLuhan, and the social scientist, Simmel, may also apply in the natural sciences, as in the example of the late celebrity astronomer, Carl Sagan. In the popular science magazine, *Discovery*, Jared Diamond (1997, 44) reports on the troubling phenomenon of the disdain among his fellow scientists for popular audiences. "[S]cientists who do communicate effectively with the public often find their colleagues responding with scorn, and even punishing them in ways that affect their careers." According to Diamond, the National Academy of Sciences rejected Sagan's nomination for membership "not because he failed to produce sufficient important scientific research but because he

had too much success as a popularizer of that research...Sagan's communication skills paradoxically provoked a backlash among many scientists, who refused to believe that he could simultaneously be a serious scientist and a charismatic TV personality"(ibid.).

As with Simmel, there is no intent to conflate the accomplishment of Sagan with McLuhan; however, this counter-themata of a hostile reaction against popular appeal provides a curious link within the rhetoric of intellectual controversy. Diamond focuses on the division of styles required for success in the scientific and the popular areas, and I summarize here because these distinctions are general indicators of the unwritten rules of the academic game which McLuhan was also accused of transgressing. Communicating with specialized audiences requires avoidance of vivid poetic language and simplifications, use of precision, qualifiers, impersonal writing, and providing "exhaustive credit" to colleagues. It is about science, not ego; it is about the community of science, not the individual. Writing for the general public, on the other hand, requires the author to be succinct, vivid, direct, that to use nontechnical language, and simplify for the sake of clarity. Diamond considers that, "it inflames us to see a colleague violating all these rules of academic writing and getting away with it." As Sagan put it, jealousy and outrage are often directed at the colleague who has the attention of the media. As indicated in this chapter's rhetoric of inquiry analysis of the McLuhan controversy these unmentionables of academic life may play a greater role than previously suspected.

Chapter 4: The Paradox of McLuhan's Legacy

> "[T]here is absolutely no inevitability as long as there is a willingness to contemplate what is happening."
>
> Marshall McLuhan (*The Medium is the Massage*, 1967)

Framework

This Chapter takes up McLuhan's legacy, where the paradox consists in the fragmentary way that McLuhan's ideas circulate in the aftermath of the forging of a negative academic consensus on his work. The question framing this zone is not easy to pose. It concerns the paradoxical presence and anomalous absence of McLuhan's contribution as represented in the works of others. Numerous writers have taken up McLuhan's invitation to venture beyond conventional study of media content and to probe the longer-term shaping effects and impact of communications media. Yet few admit their full debt to McLuhan. Within the vast zone or archive of texts inspired by *The Gutenberg Galaxy* of 1962 and *Understanding Media* of 1964, when reference is made to McLuhan's significance, even by insightful commentators, often it takes the rhetorical form of a brief, begrudging and even sarcastic one-liner. For instance, Gronbeck (1991) trivializes McLuhan's work, calling his former student, Walter Ong, "the thinking man's McLuhan"--a scurrilous phrase he repeats from Heim (1987, 57-58). Cute erudition is also commonplace. Heim writes: "Empedocles fell into the volcano and Marshall McLuhan fell into the random, fragmentary world he was describing" (1987, 11). Such rhetorical hostility to McLuhan's work obviously is not designed to do justice to his contribution.

In order to illustrate McLuhan's paradoxically fragmentary legacy and to explore the fertility or sterility of his theory of mediamorphosis, from the vast archive of texts indebted to McLuhan, I have selected a broad spectrum spanning the fields of communications, information and media studies, English, cultural history and criticism, sociology, learning theory and cognitive development, education, rhetoric, brain research, and more. The selection criteria for these texts include: critical sympathy

towards McLuhan's contribution; a willingness to defy conventional wisdom, look beyond the charge of technological determinism and other counter-themata, and consider afresh McLuhan's assertions; insightful treatment of themes clearly linked to McLuhan; and application of these recognizable themata (if not identified in this way by the authors) to understanding of the impacts of television and post-television media. For the task at hand, it is more important to demonstrate the scope of McLuhan's influence than the precision of these applications, and once again as in previous chapters the focus is on the rhetoric of the works in question.

The major texts selected include Patricia Greenfield's *Mind and Media*, Joshua Meyrowitz's *No Sense of Place*, Neil Postman's *Amusing Ourselves to Death*, Cecelia Tichi's *Electronic Hearth*, Paul Levinson's *Mind at Large* and Richard Lanham's *The Electronic Word*. Brief attention will also be paid to several works that mention McLuhan in modest but revealing ways: James Lull's *World Families Watch Television*, Jane Healy's *The Endangered Mind*, Jorge Schement and Terry Curtis's *Tendencies and Tensions of the Information Age* and Howard Rheingold's *Virtual Reality*. Recent works by members of McLuhan's extended Toronto circle, Derrick de Kerckhove's *The Skin of Culture* and Robert Logan's *The Fifth Language*, will be touched upon in order to examine how direct inheritors of the McLuhan legacy handle this process of application and extension.[1] This diverse list represents a fraction of the publications, authors, and fields of study that make reference to McLuhan, whether pro or con--a number noticeably on the increase in the 1990s.[2]

Working independently, the authors discussed have applied McLuhan's core themes as working hypotheses in their research projects. None would consider him or herself a technological determinist. Most if not all would be offended to be identified as "McLuhanites." Some of these researchers situate their work within a conventional academic discipline, but if so likely consider the tradition in need of fresh insights, particularly in a twentieth-century context of pervasive media and information technologies. All treat McLuhan as a fellow pioneer; however, none of the authors discussed take McLuhan's work as an ending point, but rather, all share the attitude that

his work provides a point of departure. In the texts and lines of research under examination, each author raises important criticisms, or reservations, while opening up avenues for students of McLuhan and other communications scholars. Much distortion of McLuhan's work is also in evidence. My general hypothesis is that the rhetorical space in which McLuhan figures--even among those sympathetic to his project--has been deformed in the aftermath of the rhetoric of intellectual controversy dissected in Chapter 3, and especially the historically effective (if unstable) forging of a negative academic consensus.

Chapter 4 continues the rhetoric of inquiry examination of these texts because by revealing the themata behind the surface contents, this inquiry can prove useful in reconstructing the rhetorical space in which major controversies play out.[3] Such shared "McLuhanesque" themata as exist among these diverse texts are mostly evident in the formulation and application of interpretive hypotheses about how and with what impact media operate as techno-cultural environments at the macro-, meso-, and micro-levels, and how the institutions, groups, nations, and individuals immersed in these environments are transformed as their relationships to these active environments change. As McLuhan wrote in *The Medium is the Massage*: "All media work us over completely. ... Any understanding of social and cultural change is impossible without a knowledge of the way media work as environments." (1967, 26). All the texts discussed contribute to expanding this knowledge.

This Chapter thus contributes to the overarching objective of reappraising McLuhan's contribution by examining the ways in which some of the key themes he raised (as discussed in Chapter 1) have played out in the works of those researchers who have acknowledged their debt to McLuhan and have taken his work seriously enough to extend his ideas in their own directions. In the discussion to follow, analysis of the rhetorical features within the designated texts also permits speculation on some of what may have been so far lost to the human sciences, generally, and to the historically informed study of communications, specifically, as a result of this occlusion and often odd inclusion of McLuhan's ideas. The rhetorical deformation of McLuhan's contribution

matters because it blocks many later scholars from taking McLuhan's corpus of work seriously enough to fully appreciate and make use of it.

Several preliminary points must be established before introducing the texts under scrutiny. An extensive interpretation of McLuhan's theory of mediamorphosis was offered in Chapter 1. However misunderstood his work may have been, from the horizon of the 1990s, McLuhan's contribution can be appraised as significant in opening a new front in the debate over how technologies, in general, and media, in particular, operate.[4] His ideas have already exerted an effective historical influence, in Gadamer's sense, due to his contribution to stimulating greater public and academic awareness of previously neglected topics. Despite the attempted excommunication of his work from the academy, the generative and pervasive force of McLuhan's insights is readily established once we consider several irrefutable facts: the few works prior to his own that addressed the question of the historical effects of the forms of media and technologies or that took seriously popular, media-linked culture; the multiplicity of authors who recognize an inspirational debt to him, whether pro or con, and those whose work brims with his ideas despite a lack of acknowledgement; and the revival of interest in his work during the 1990s. Whether one believes that he is right or not, from the horizon of the 1990s he stands out as an unsurpassed pioneering twentieth-century theorist of communications media or mediamorphosis. There could be no finer recognition of this point than the designation of the electronic media period as the "McLuhan Galaxy" by scholar Manuel Castels (1996, 337). Alas, Castels' work came to my attention too late for inclusion in this chapter.

One factor contributing to the difficulty of assessing his legacy is that McLuhan as pop icon and as intellectual has become a fixture of late twentieth-century thought.[5] His influence is manifest across intellectual contexts worldwide (e.g., Baudrillard 1983). Wildly diverse applications are apparent within popular thought. For instance, Joel Kurtzman in *The Death of Money: How the Electronic Economy Has Destabilized the World's Markets and Created Financial Chaos.*(1993) recognizes what he calls McLuhan's prescience in anticipating the electronic economy and the impact of new

technologies on world financial markets, and hails his accurate dismissal of Marx's economic determinism; Oliver Stone's 1991 movie, "The Doors," links McLuhan to the 1960s by featuring a collage of iconic influences on the singer Jim Morrison, prominently including the paperback cover of *Understanding Media*; the cyberhip magazine, *Wired* (1993;1996), salutes McLuhan as patron saint, and editor Louis Rosetto acknowledges the magazine's debt to the "multimedia" graphical format of *The Medium is the Massage* (Benedetti and DeHart 1996) ; meanwhile *Mondo Canuck* (Pevere and Dymond 1996) celebrates his iconic pop cultural status.

There is another important reason for the difficulty of reappraisal, a point touched upon in the previous chapter: the fragmentary nature of McLuhan's legacy as a result of the aftermath of the violent controversy surrounding his contribution. The continuing circulation of contradictory interpretations and uses of fragments of McLuhan inside the academy and media has produced mixed effects. On the positive side, the widespread practice of creative bricolage permits an author to employ one of McLuhan's memorable phrases to point to the wider dimension of a topic. James Lull thus suggestively adapts McLuhan's notion of media as extensions to an ethnographic study of the impact of TV viewing in *World Families Watch Television* (1988). In *Video Kids: Making Sense of Nintendo*, Provenzo (1991) situates his study of video game usage by retrieving McLuhan's dictum "the medium is the message" and his comments in *Understanding Media* on the significance of play. In his philosophical study of information technology design, Coyne (1995) insightfully draws upon McLuhan's writings and influences to formulate a pragmatic approach to information technology. These rhetorical yet substantive uses of McLuhan often ground discussions of contemporary specifics within a broader historical context, acting, for example, as references to the general question of the word versus the image, orality versus literacy, or Gutenberg's print galaxy versus the post-telegraph information age. A similar tactic also can be employed to set up McLuhan's position as foil for a later author's inquiry into the media's impact upon culture (e.g., McKibben 1992; Birkerts 1994). Invoking the name of the maverick master of communications media can set up a context of insight by serving as a hook, allowing

the writer or journalist to involve the reader in a recognizable debate by conjuring up the one who initiated the conversation in the first place. Thus Katsh (1989) invokes McLuhan in his illuminating discussion of the electronic transformation of law, an example of begrudging acknowledgement of the scope of McLuhan's pioneering and visionary genius.

This personification of ideas in the figure of an author is a familiar phenomenon, from Plato to Marx, and from Freud to Einstein. During the 1960s, McLuhan became an intellectual touchstone once he became an academic celebrity identified with three chief topics: communications media (especially television), historical techno-cultural change, and popular culture. Varied uses of McLuhan continue to proliferate during the 1990s and McLuhan as figure thus stands in for or personifies a nexus of ideas and debates. For the scrupulous author (e.g., Katsh 1987; Thompson 1995, 7-8), to omit him would be to ignore intellectual history or even to commit plagiarism because his sweeping vision of techno-cultural change through history has bequeathed historiographic themes upon which later specialists can create variations. Within the electronic era, McLuhan's fragments also find echoes in soundbites, mindbites or promotional hooks on popular and scholarly books. Thus the reader learns that Douglas Rushkoff, author of *Media Virus* (1996) is deemed "an heir to McLuhan," or that Cecelia Tichi's *Electronic Hearth* (1992) is "McLuhanesque." In other cases, McLuhan and his metaphors have passed into the language and are appropriated as common property, part of the fabric of thought, as though the product of an anonymous author. Take, for example, this odd sentence from the U.S. federal court decision to overturn the Communications Decency Act: "Any content-based regulation of the Internet, no matter how benign the purpose, could burn the global village to roast the pig" (*Time Magazine* 24 June, 1996). Elsewhere, mention of McLuhan serves to invoke a rhetorical figure in a morality tale, personifying the rogue scholar and reinforcing the rules of proper academic conduct, as discussed in Chapter 3. The eponymous "McLuhanesque" has passed into the language, in senses both pro and con.

Grasping the existence of this fragmentary yet pervasive ground is crucial to Chapter 4's attempt to illuminate the figure of McLuhan and his legacy in the aftermath of the forging of the negative academic consensus. Ironically, this process of fragmentation resembles the survival of the authors of antiquity (such as Heraclitus). The difference however is that those fragments are carefully reconstructed, catalogued, and argued over by classical scholars. Perhaps the same will happen for McLuhan; more likely he will proliferate into millions of facets on the World Wide Web. In a profound sense, this phenomenon of fragmentation resembles Horace's "disjecti membra poetae," which means "the limbs of the dismembered poet" and refers to the process by which the lines of a poet are "divorced from their context, or absurdly applied" and thus represent only the "mangled remains" (King 1904, 73). McLuhan is consumed by his readers who become his producers, in keeping with his dictum that the user is the content. Thus many of those who employ metaphors such as the global village have no idea who originated them. These metaphors are generative and creative, in Lakoff and Johnson (1980) and Krippendorff's (1984) senses.

These examples are positive instances of the fertility and vitality of McLuhan's ideas, yet numerous negative effects also stem from this fragmentation. Closer inspection reveals an influence that seems curiously deformed. The one-line quotations that encapsulate his work rip it out of context, all the while (and paradoxically) illustrating the pervasive influence of McLuhan. When McLuhan's insights are decontextualized, the profound roots of his ideas, the development of these ideas over the course of his career, and his affinity with the emergent tradition of communications history are mostly ignored, or at best superficially recognized. Where citation is in evidence, the works named are routinely restricted to the loci classici *Understanding Media* and *The Gutenberg Galaxy*, with occasional reference to the *The Mechanical Bride*.[6]

Several other points require clarification. The reader may legitimately ask why this fragmentation of McLuhan's influence should matter. I intend to show that the negative consequence for the communications field and the human sciences of perpetuating such a deformed legacy is that certain important themes McLuhan raised have been rejected

prematurely due, in large measure, to the heated controversy over his contribution. I put forth two main reasons for this: the difficulty of reading the whole McLuhan on his own terms, complete with some comprehension of his sources in Joyce and the Symbolists, among many others, and thus the lack of interdisciplinary scholars who can or will engage in such an undertaking; and the timidity of scholars who fear being associated with heated controversy. Understanding McLuhan is hard work. His writings and other productions are seriously playful, often ambiguous, and require erudition to follow and appreciate fully. This takes time. He continued to evolve his ideas to the last, and even beyond the grave via his collaborators. If one does not attend to the roots of the ideas, or neglects their later blooming, then the force of his sense and meaning is lost. One troubling finding in this investigation is that all too often McLuhan's critics, notably those whose smoothly written and hostile work contributed to the forging of the negative academic consensus, are quoted, or their opinions substituted for his ideas, while McLuhan's works and objections to his critics' interpretations are ignored, often on the feeble pretext that he did not say what he meant in a conventional academic sense, and therefore, whatever the critic believed he said goes. Often his critics write the entries in the official literature, as for example the entry in the *International Encyclopaedia of Communications* by Brian Winston, author of the aptly titled *Misunderstanding Media* (1986). Most serious in this respect is the enduring fact that, as argued in the third chapter, McLuhan's work has been reduced and dismissed under cover of the counter-themata of technological determinism. To this misleading orthodox interpretation I have opposed the theory of techno-cultural transformation (or mediamorphosis) based upon a re-reading of McLuhan's oeuvre in Chapter 1. Demonization of McLuhan as a rogue scholar while simultaneously cannibalizing his ideas, has presented another formidable barrier to later understanding and application of his work. Popularization of his ideas in the media has likewise scared off scholars, and even those deeply indebted to McLuhan, such as Eisenstein (1979), have admitted that the animus against McLuhan has deterred all but the brave or avant garde (she includes communications scholars) from taking up his themes. The most serious consequence,

therefore, of this heretofore successful tactic of supplanting McLuhan's stated meaning with his critics' counter-themata is the loss to communications scholarship of the directions opened up by his insights into the transformative operations of technology within culture.

There are exceptions. By probing the applications of his ideas within the diverse texts of those who evince critical sympathy with his project, it becomes possible in this chapter to trace the paradox of McLuhan's legacy into the present. The issue is how these later researchers applied his ideas and themata to their studies of techno-cultural changes as linked to contemporary media, which I have for this Chapter defined as television and post-television media. There are several reasons why it seems useful to focus on the patterns of applications of McLuhan's theory of mediamorphosis to the recent past. For his contemporaries McLuhan's most controversial historiographic innovation was to extend his theory of mediamorphosis into the present. It was troubling enough to proclaim as McLuhan did in *The Gutenberg Galaxy* with Plato's Socrates, and with Parry or Lord that the shift to writing and literacy had profound impact, or to demonstrate artfully that the printing press had transformative consequences. These were significant, but remote quarrels. It was quite another matter to argue that in our own time the electric/electronic wave beginning with the telegraph of the last century was washing over the now obsolescent culture of print, retrieving in its wake a post-literate orality. If correct, this conclusion would affect everyone and everything.

The most furious rhetoric of rejection by McLuhan's critics came after the publication of *Understanding Media*, where he developed at length this extension of his historiographic innovation into the present, and thus--if he was right--appeared to pose a threat to conventional understanding of the foundations of Western Civilization and rationality, to undermine the print-dependent academy itself, and to challenge previous explanations of social and cultural change. Quite simply, McLuhan's theory of mediamorphosis posed this threat, not by suggesting a monocausal theory of history, but rather, by forcefully pointing out serious blindspots in all previous explanations and by asserting with stylish and exasperating irreverence the Toronto School of

Communication's unprecedented alternative interpretation of historical change.[7] Application to the contemporary period of this historiographic innovation of mediamorphosis also struck a nerve due to its relevance for and resonance with the fears and hopes, dreams and desires, of the 1960s. This resonance and the fame that accompanied it further terrified the anxious academy.

The most radical challenge to conventional thinking posed by McLuhan's work arose from application to the present of the sweeping epistemological conclusion he drew from his diagnosis of the historical patterns of mediamorphosis: "[W]e have confused reason with literacy, and rationalism with a single technology" (ibid., 15). McLuhan argued, beginning in *Explorations*, that new electronic media would give birth to new forms of rationality and consciousness, but warned that in the rear-view mirror of print-based rationality, these new forms would appear menacing and irrational. McLuhan as catalyst inspired his successors to tease out the profound consequences of mediamorphosis; he simultaneously sparked controversy with these assertions, most obviously in his critics' characterization of him as an "enemy of the book."

The texts discussed in Chapter 4 do not, for the most part, repeat the tactics of rejection traced in Chapter 3. Thus these texts confirm the conclusion that the orthodox rejection of McLuhan's ideas is unstable. Historically, however, the texts also illustrate the rhetorical space of the post-1975 forging of the negative academic consensus, where McLuhan has been positioned within his critics' counter-themata. From the horizon of the 1990s, McLuhan can be seen as having bequeathed research questions of the utmost relevance, revolving around a central question: how to trace out the dynamic patterns of techno-cultural transformation and render the imperceptible environments in our own time perceptible.

Applications of McLuhan's work

From various angles, or disciplinary optics, in the 1980s and early 1990s a growing number of investigators inspired by McLuhan's work addressed questions that turned on inquiries into this historical process of contemporary mediamorphosis. Due to the breadth of texts selected, in this section, a compressed mosaic treatment will be employed that focuses narrowly on two aspects in keeping with this rhetoric of inquiry analysis: the application of key themata from McLuhan's theory of mediamorphosis, and the positioning of McLuhan as persona within the rhetorical space of the texts. I have also elected to pair authors whose texts address complementary themata, even if their conclusions diverge. The discussion to follow will amplify these dyads.

Media as curricula

Patricia Greenfield explores the question of the impact of media on the developing North American child and the resulting cognitive learning styles, particularly in the classroom. A cognitive psychologist who had conducted field work in Senegal and worked with Jerome Bruner, she writes:

> Educators (myself included) have a tendency to be literary snobs, regretting the passing of an old order in which people *really* knew how to read and write. This attitude has prevented us from seeing the revolutionary promise of the electronic media: they give new cognitive possibilities to disadvantaged groups, and they have the potential to enrich and diversify educational experience for everyone. ... Society is also in direct need of the skills that are developed through experience with the electronic media. Already most people receive most of their information from television, not from print. Feature films provide children's most universal cultural experiences. Thus the need for sophisticated viewing skills is great. (179)

Greenfield positions McLuhan rhetorically by recognizing him as originator of the idea that the medium is the message, and as initiator of the study of the forms of media as opposed to the content. In his commentary on television (1964), McLuhan had observed that the child growing up under the influence of television took a different approach to the book. What concerned him was not content but the fact that the child

held the book closer (*Understanding Media* 1964, 308), and that nonlinear story lines were preferred over linear narrative (ibid., vi). She cites only *The Gutenberg Galaxy* and *Understanding Media*, and as point of departure notes that McLuhan did not offer much detail on the topic of children and education. Of course he had spoken on this topic throughout the 1950s, conducted *Project in Understanding New Media* in 1959, and makes frequent reference to children in *Understanding Media.*

His work, she notes provided "free-ranging speculation" rather than "scientifically grounded information" (4). Greenfield's rhetoric on McLuhan indicates a perceived division of the field of communications into two streams. In 1958, Himmelweit et al conducted an empirical interview-based study of the impact on British children of TV content, a research approach carried on in North America by Schramm et al (in 1961). During the same period, McLuhan introduced the idea that relationships were formed not with content, but with media forms. Greenfield recognizes McLuhan as a fellow pioneer, and seeks to apply his ideas while grounding them in formal and informal social scientific methods. Greenfield demonstrates the importance of further pursuit of the linked themata of: media, child development, and the curriculum, and valuably extends her themes to encompass "the message of each medium" as it affects human not simply child development (ibid., 4).

Greenfield directly tackles the key question posed by McLuhan's search for core dynamics: "[W]e have confused reason with literacy, and rationalism with a single technology" (5). The challenge is to the privileged and taken for granted status of the print medium. If so, he asserted, alternative forms of rationality would likely emerge in the wake of newer media. These would not please everyone, and cultural and generational clashes were to be expected. Greenfield takes up these questions without sermonizing. Drawing on the literature of social and cognitive psychology, supplemented by anecdotal observation where necessary (for computers and video games), she finds different learning styles and confirms that children are not homogeneous in their responses to the potentials of media. Social class and other factors, such as gender, come into play. She refuses to adopt the negative outlook of the supposed linkage between the

death of reason and dangers of television. Instead, she constructs hypotheses based on observation regarding the new sorts of intelligence that may be forthcoming from video games and other non-print media.

Her study of the effects of newer media within the cognitive tradition focuses attention on the impact of media on children during pivotal sensory and cognitive development. Media content has effects, she argues, but, along lines suggested by McLuhan, she provides empirical evidence for the idea that the medium is the message. She advances the view that new forms of rationality and intelligence may stem from video game playing, and may provide unexpected positive contributions. In a rare admission for a social scientist, she confesses (based on observation of her son's video game playing) that some skills may be simply unimaginable to the uninitiated. Greenfield cites the few studies available, including her own work and personal observation to advance the important hypothesis that distinctive cognitive skill sets - which she calls "parallel" as opposed to "serial" processing - may result from early exposure to television and electronic games (20-21; ibid., 112-14). These "parallel processing" skills can have positive effects, permitting, for example, recognition of patterns in complex phenomena. The tantalizing prospect suggests itself (and is developed by others as we will see below) that perhaps technological innovation plays an as yet unsuspected role in human evolution; the ability to develop skills through relationships with new media and technologies may engender skills that will assist in coping with the environment we are continuously fabricating.

Greenfield comments: "Each medium has its own profile of cognitive advantages and disadvantages, and each medium can be used to enhance the impact of the others. In short, to return to Marshall McLuhan, each medium has its own message" (ibid., 178). Her work follows McLuhan's suggestion that research attention be directed to new media literacies and sensory development in a manner cognizant of the creative possibilities. The importance of incorporating this insight is that most North American children now grow up within a multimedia environment. She argues that bringing the electronic media into the schools could capitalize on their motivational force for children. She makes a

case for multimedia learning, and lends support to the idea that positive literacies may result from TV and video games, within a broader concept of a media diet that also includes print, and suggests that the media diet idea may prove useful as a remedy for learning problems. McLuhan had raised this notion of media diet as a prescription, arguing that the effects of one medium could be counteracted by the operations of another (*Understanding Media*, 53-4). Greenfield points out that : "Most of tomorrow's occupations will involve computers in one form or another, and video games will be most children's first experience in interacting with a computer" (1984, 180). She shares McLuhan's understanding of the potential of media, in this case the computer, to provide not simply a tool, but a transformative device for human mental activity (ibid., 153). She notes that, in the case of word processing, transformations are already evident in the child and adult's relationship to writing (ibid., 154). Greenfield explores research, including experimental work, showing that children who play video and computer games are oblivious to the story line (ibid., 158-67), a case McLuhan made previously for TV babies. She repeats that introduction of these transformative tools into schools may prove motivational for children and makes a strong case for using a variety of media in education (ibid., 157-65). In small scale experiments reminiscent of the McLuhan and Carpenter efforts in the 1950s, she finds that print and TV are about equal in tests of comprehension and memory, while radio does not perform so well (ibid., 79-80). Social class may also have an impact on the most effective medium for use in learning.

Another of McLuhan's insights which proves productive for Greenfield is that media change happens generation by generation, and thus children exposed to TV when young develop alternative learning styles.[8] Influenced by Huizinga's classic, *Homo Ludens*, McLuhan had observed that new and alternative media usually infiltrate the cultural repertoire by becoming a part of play, and can have profound effects, despite the fact that they are usually excluded from formal classroom environments. Greenfield employs psychological testing on adults and notes that they do not seem to maintain the learning habits acquired from early television exposure later in life. Much more work on this question of new media and generational impacts is required, as is readily evident from

the rest of Greenfield's book. The issue of development, learning styles, age stages, and generations requires sustained attention. Many cognitive psychologists have concluded that what matters is the place in the life cycle, not the particular exposures of the generations to media. McLuhan's work challenges this idea, by reason that the techno-cultural environment may be inherited or taken for granted--like a second nature--by the next generation. Continuing the Greenfield example, in her small-scale study, important detail is omitted, such as the age of the "adults" studied and the nature of their early exposure to media. This question of the linkage between generations and media change is one area where the occlusion of McLuhan's work has frustrated important lines of inquiry.

In a manner reminiscent of McLuhan's 1959 *Project in Understanding New Media*, high school teacher, Jane Healy, searches for answers to the question of why school children seem less able to learn than their predecessors, and what the media to which they are exposed may have to do with this in *Endangered Minds: Why Our Children Don't Think* (1990). Writing nearly a decade after Greenfield, and thus aware of certain breakthroughs in brain research, notably the findings on pivotal stages and hemispheres of the brain--the latter an issue that McLuhan considered central--she asks, what kind of impact new media have on the plasticity of the brain as it is in the process of formation. Healy reaches a pessimistic conclusion, in the tradition of McLuhan's self-declared popular antagonists, such as Marie Winn in *The Plug In Drug* (1985) and Jerry Mander in *Four Arguments for the Elimination of Television* (1978). Healy's pessimism stems from the fact that she works on the front lines of teaching where she has observed that children and their learning styles have changed. In comparison with students of the past, they seem unable or unwilling to perform certain mental tasks that once were expected at their age and stage. They also--although this is controversial--seem to score lower on the national Scholastic Aptitude Tests.

Rhetorically, McLuhan's influence is present yet absent. In her final chapter, "Expanding Minds," Healy raises the prospect of new forms of intelligence by citing an aspect of McLuhan's core dynamic: reorganization of the ratio of senses, the common

sense or wit, in response to new media (1990, 344), what McLuhan refers to as "interiorization". Fragments of McLuhan's insights into mediamorphosis seem to pepper Healy's book. Two of his extended circle (Robert Logan and Derrick de Kerckhove, discussed below) are included to elaborate Healey's question that if alphabetic literacy brings about profound changes, then perhaps other sorts of intelligences may arise from non-alphabetic (and electronic) literacies. Precisely the question McLuhan raised as far back as the 1950s. Despite her pessimism, then, Healy ends her book on a questioning note (along lines of Greenfield's more positive earlier arguments) by asking whether or not different types of intelligences may be emerging in response to new media, intelligences which may have a basis in cultural evolution (ibid., 333-35). The spirit of Healy's pragmatic inquiry thus applies McLuhan's themata of the impacts of the forms of new media on the development of the brain and the consequences for education and the wider culture.

Certain of McLuhan's inadequately developed themes provide fertile points of departure for these two texts. Greenfield and Healy's work--although providing no final answers--indicate that a major theme worth further research is the significance of new media in shaping the generations whose literacy and sensibility is constituted in part under their influence. Opinions in the debate diverge widely. Once McLuhan's themata are recontextualized within the Toronto School of Communications, these promising directions can be retrieved for researchers. To substantiate this claim, it is worth restating one of the areas where McLuhan found value in Havelock's work and regarded it as confirmation of his own findings. Havelock (1982, 50) observed that reading man, as opposed to speaking man, is not biologically determined. Full literacy can only occur, Havelock writes,

> When a system of instruction is devised to impose the habit of recognition upon the brain before it has fully concluded its growth; that is, in its developmental stage before puberty. More precisely, the habit must be formed in that period when the brain is still engaged in the task of acquiring the oral language code for which it is biologically equipped. It would appear that the two codes necessary for speaking and then for reading have to meld together at a time when mental

> resources are still in a plastic condition - to use a loosely conceived but convenient image - so that the act of reading is converted into an unconscious reflex. In short, a population is rendered literate when an educational apparatus can be brought into being which is able to teach reading to very young children before they have been introduced to other skills. (74)

Their opinions may be pro and con; however Greenfield and Healy would agree that the thema of new media and new sensibilities, new literacies, brain plasticity and development, the media as curriculum for culture, and prospect of the classroom as counter-curriculum for media provide routes towards a unified focus of further research.

Media and cultural change

Joshua Meyrowitz in *No Sense of Place: The Impact of Electronic Media on Social Behavior* (1985) explores how television in the household reshapes the culture. McLuhan considered that the media were powerful educators. He asserted that it did not matter whether or not TV came into the classroom, for the revolution of television had already taken place in the home. The most thorough and serious application of McLuhan's ideas about the television medium and how media effects in the home environment affect the entire repertoire of cultural behaviour can be found in Joshua Meyrowitz' *No Sense of Place*. Meyrowitz's larger purpose is "to offer a new approach to studying both media effects and social change," which he does by offering a "situational analysis" that "describes how electronic media affect social behavior--not through the power of their messages but by reorganizing the social settings in which people interact and by weakening the once strong relationship between physical place and social 'place'" (1985, ix) Meyrowitz applies McLuhan's key thema that media work as environments in his search for "the missing link" between media and behavioral change in North America, since the upheavals of the 1960s. He critically and systematically extends McLuhan's formulation of the core dynamics for techno-cultural transformation and conjoins this formulation with the work of Erving Goffman.

Rhetorically, Meyrowitz acknowledges McLuhan's influence (ibid., 3) and weighs his significance (ibid., 16-23). Although most of his discussion is based on *The Gutenberg*

Galaxy and *Understanding Media*, Meyrowitz refers also to later interviews (1969; 1977), because McLuhan's ideas are clear in an oral mode of presentation.He is well aware of the lingering animus towards McLuhan's work and mentions the negative comments from an anonymous reviewer of his book as a case in point (1985, 343, n.19, n.20). This animus in fact forms an important subtext. McLuhan is hailed as a prescient generator of insights--a move which allows Meyrowitz to attempt to remedy certain lacunae in the application of McLuhan to his discipline of social psychology and sociology. Read carefully, it becomes obvious that Meyrowitz uses McLuhan to innovate within the human sciences. For example, Meyrowitz finds definitions of key terms within the traditional social scientific disciplines wanting, such as "role" which he calls an "elusive concept" and "a theoretical haven" (ibid., 336); Meyrowitz also singles out another key term, "socialization" (ibid., 338) which he considers "so vague as to be almost mystical." Meyrowitz finds in McLuhan a fellow pioneer because, despite McLuhan's contribution, the social sciences have made limited attempts to incorporate the study of changing media into social theories.

Meyrowitz repeats the prevalent (and erroneous on my argument) view that McLuhan is a "disciple" of Innis (ibid., 17), but contradicts this point with his recognition that "McLuhan's difficult mosaics remain the richest source of hypotheses that relate specifically to the telephone, radio, and television" (ibid., 23). Meyrowitz limits his appraisal of McLuhan (and of Innis) to a "medium theorist," which leaves out McLuhan's historiography and broader techno-cultural scope. In this sense, McLuhan provides a rhetorical hook for the topics Meyrowitz wishes to raise. In a variation of the 'rogue scholar' argument, his criticism focuses on McLuhan's lack of narrowly focused work that develops "strong and convincing arguments built on historical research and field data" (ibid., 22), but as argued in Chapter 3, this move is obviously designed to disassociate Meyrowitz's own radical contributions from the hostility attracted by the maverick. Yet Meyrowitz acknowledges the virtues of a general field approach, along with the problem of narrow but academically credible studies. How could he not, since this is his strategy also?

Significantly, Meyrowitz regrets the lack of a general body of literature (and audience for it) bearing on the problem of "the general principle that *all* media are powerful shapers of culture and consciousness" (ibid., 22). There can be no such literature, audience or network arising out of the Toronto School of Communications so long as McLuhan's work remains decontextualized and his persona continues to be perceived as the "solitary outlaw" (Powe). Scholars such as Meyrowitz contribute to extending such a network. The greatest problem with McLuhan and the medium theorists, argues Meyrowitz, is that they provide a *perspective* for studying the effects of media on behaviour, but not a detailed *theory*. In particular, McLuhan's discussion of sensory balance (summarized in Chapter 1 as part of the core dynamic) offers fertile suggestions, but not the systematic rigor that will count as social science, or convince a hostile academy: "Part of what is missing from the medium theory studies is any real attempt to link an analysis of media characteristics with an analysis of the structure and dynamics of everyday social interaction" (ibid., 23). Rhetorically, then, Meyrowitz identifies his task: to develop a systematic theory that will "bridge the gap between the perspective offered by the medium theorists and the sociological perspective" based on Goffman's work so as to explain "the relationship between 'social situations' and social roles" (ibid., 23).

Thus Meyrowitz critically recognizes both the merits of McLuhan's insights, and attempts to remedy the deficiencies. Usefully, he brings the macrohistorical perspective down to human situational scale. To achieve credibility, he must overcome the prejudices against McLuhan as rogue scholar, utopian optimist and technological determinist. Thus he defends the view that value judgements about the situation he describes cannot be made easily (ibid., 319). He denies any connection between his discussion of the breakdown of boundaries among people and "a prophecy of a utopian society of harmony and bliss" (ibid., 317). Much effort is also spent on avoiding the label of technological determinist, again in an effort to avoid the animus. In summary, Meyrowitz writes that, of course, individual freedoms remain; however, "once invented and used, media affect us by shaping the type of interactions that take place through

them. We cannot play certain roles unless the stages for those roles exist" (ibid., 329). McLuhan would certainly have approved of this formulation.

Thus this text shows traces of the deformation of the rhetorical space surrounding McLuhan's contribution while evincing a determination to incorporate McLuhan's insights into scholarship. In this regard, it seems no accident that Meyrowitz is a self-described TV baby. Going further still, Meyrowitz overturns the critics' refusal to consider his own (and McLuhan's) points with a strong defense:

> Ultimately, the most deterministic perspective may be unwittingly embraced by those who refuse to apply our greatest freedom - human reason and analysis - to the social factors that influence behavior. We do not retain free-choice simply because we refuse to see and study those things that constrain our actions. Indeed, we often give up the potential of additional freedom to control our lives by choosing not to see how the environments we shape can, in turn, work to reshape us (ibid.).

As McLuhan put this: "It's inevitable that the world-pool of electronic information movement will toss us all about like corks on a stormy sea, but if we keep our cool during the descent into the maelstrom, studying the process as it affects us, and learning to program and control it, we can come through" (1969, 167). McLuhan's key thema that media are environments that we shape and which in turn shape us provides the core of Meyrowitz' theory.

Meyrowitz unusually defines media as "certain types of social environments that include or exclude, unite or divide people in particular ways" (1985, 331) Meyrowitz presents a theory suggesting that the relationship between social situations or social environments and expected behaviors provides one key to an analysis of the impact of new media of communication on social behavior (ibid., 332-33); "[E]lectronic media create new types of social situations that transcend physically defined social settings and have their own rules and role expectations" (ibid., 333). The lacuna in McLuhan is seen to be lack of precision about how the media environments operate. McLuhan takes aim at content, and argues that it is to the medium's direct shaping effects that the investigator should look to find answers to the shifting relationships. Meyrowitz modifies this position so as to have it both ways. When a family watches TV together, everyone

has access to everyone else's behaviours--including Goffman's backstage behaviours. Access to information is a generic phenomenon (the medium of the message), yet the question is left open as to what the content teaches. Meyrowitz then argues that it is this pattern of breaking down the restrictions of "place," in the dual sense of role and physical location, that changes patterns of access to information, and thus changes roles and identities in society on a wider scale. So, for example, children observe backstage parental behaviour, and the divisions between child and adult blur. Men see women's backstage, behaviour and vice versa and rigid sex roles blur as a result. Finally, TV brings the mighty down to size and reduces hierarchies, while altering the barriers between public and private spheres (ibid., 73; 93). This is hyperbolic in that Meyrowitz would argue for nuance: he does not imply (as McLuhan did not) that media are the only operating factor shaping techno-cultural environment. See also Babe (1990) for further use of "technological determinism" as the demonizing tactic for McLuhan, and darkest of the "myths" that can be propagated by intellectuals.

To locate the missing link between changing media environments and behaviour, Meyrowitz has taken McLuhan's formal ideas about media as environments, narrowed environment to mean social situations, and then added the formal content of Goffman's "definition of the situation." His conceptual innovation is to translate this linkage into a sense of place. He finds that the common theme connecting many diverse contemporary phenomena in American life is a change in this "sense of place" (308).

What sort of sense is this? Meyrowitz calls it a serious pun, one that connects four aspects: sense as perception and logic; place as social position and physical location (ibid., 308). "Evolution in media, he writes, has changed the logic of the social order by restructuring the relationship between physical place and social place and by altering the ways in which we transmit and receive social information" (ibid., 308). McLuhan, of course, regarded extensions of senses (and other extensions) as fundamental to his theory of techno-cultural transformation, or mediamorphosis. What sort of sense is a sense of place? Surely it is a composite of touch, sight, smell, plus the more complex "senses" of group belonging, role, status, and identity. Thus Meyrowitz's attempt to define culture in

terms of behaviour and access to information cannot completely resolve the difficult problem of how media alter sense of place without involving some of the other senses, senses that McLuhan addressed. Meyrowitz seems to recognize this, and his contribution is a shift in emphasis towards the social environment as he applies McLuhan's core dynamic, a point supported by his commentary on the impacts of television:

> [E]lectronic media, especially television, have had a tremendous impact on Americans' sense of place. Electronic media have combined previously distinct social settings, moved the dividing line between private and public behavior toward the private, and weakened the relationship between social situations and physical places. The logic underlying situational patterns of behavior in a print-oriented society, therefore, has been radically subverted. Many Americans may no longer seem to "know their place" because the traditionally interlocking components of "place" have been split apart by electronic media. Wherever one is now--at home, at work, or in a car--one may be in touch and tuned-in....Our world may suddenly seem senseless to many people because, for the first time in history, it is relatively placeless (ibid., 308).

This quotation illustrates the positive application of McLuhan (and of Goffman) by Meyrowitz into a diagnosis of the historiographic patterns considered in formal but not static terms. Numerous scholars have attempted to account for the consequences of life with media, and many have been inspired by McLuhan to theorize large-scale cultural changes. The distinction of Joshua Meyrowitz here is his attempt to arrive at a theoretical formulation that will hold together and posit that missing link between the behaviours that have changed and the changing mass media. Meyrowitz has been criticised for a lack of precision by Kubey (1990), among others, but this friendly criticism indicates merely that there is much more work to be done. What is exemplary is that Meyrowitz has developed a theoretical system as well as a series of case studies indicating how the core dynamics of electronic media intersect with historical cultural patterns.

Meyrowitz's application of McLuhan's themata can become still more insightful once further attention is paid to what actually occurs as household members use media. The move in the 1980s to media audience ethnography provides a parallel source of

inspiration which, if combined with Meyrowitz's attempts at theoretical rigor, hold the prospect of major breakthroughs for the heirs to McLuhan.

These issues are taken up by James Lull in his edited collection, *World Families Watch Television* (1988). McLuhan's point was that once we stopped looking first at content, and examined the medium's effects, there were many places to investigate the problem of techno-cultural transformation. As Meyrowitz also recognized, the placement of television in the home changed the cultural threshold and the relationship between public and private life, so that the world out there entered the life in here. James Lull finds enduring theoretical currency in one of McLuhan's core themata - media as extensions of psychic or physical faculties-but Lull reverses the emphasis to consider "acts of viewing, wherein audience members' interpretations and uses of television and video cassette recorders extend not only the individual viewer, but also social and cultural patterns and dispositions " (1988, 237). Thus it is audience extensions that concern Lull--an approach that permits him to incorporate extensions at the cultural, household, and personal levels (ibid., 239), the "whole gestalt of the viewer's life situation" (ibid., 238). The book offers tantalizing cross-cultural evidence for the media ecology approach, whereby television in the home reorganizes the space, habits, and styles of the household; ultimately these widespread small-scale changes can have significant cultural ramifications.

In these comparative ethnographies, Lull and his co-authors found that television alters preexisting social relations, wherever it is introduced (ibid., 244-45). In a surprisingly neglected finding, for example, meal preparation time by females in North America , India and China to take but three examples, decreases once TV is introduced. North America invented "TV dinners." In India and China, food preparation time drops after television is introduced (ibid., 244). (The authors explain that everyone wants to finish so as to watch TV.) Furthermore, spatial arrangements in countries/places where sexual segregation in living quarters is practised, is adjusted in the wake of TV's introduction, presumably with consequences for the rigid division of gender roles. These

case studies strongly suggest that exposure to the television medium (not simply its content) can alter the balance between traditional and modern culture.

The other promising feature of Lull's work for applications of McLuhan's theory of mediamorphosis lies in the empirical evidence provided to shed light on the apparent paradox which says (in simplified terms), media are not neutral, and each medium has its own properties; simultaneously the introduction of new media into a historical society and culture varies depending on the cultural and media matrix of the society in question. Comparative research outside North America and Western Europe has confirmed McLuhan's observation that use of television has varied effects depending upon previous way of life, or traditional culture. (McLuhan 1965, 50; his term was "cultural matrix" *Understanding Media* 1964, 11). As the case study of Venezuelan TV (Lull, 76-77) illustrates, the media are not homogeneously "American" and the pattern of TV viewing varies worldwide. The actual way in which these developments play out, as McLuhan observed, depend upon the culture in question.

Lull and his colleagues look carefully at the stage of television introduction, and the particular society into which it is introduced, while not abandoning the search for general observations amidst this particularism. Neglect of this approach (which Geertz has described as a kind of tacking between the general and particular) helps explain the difficulty faced by McLuhan's more myopic critics, who claim, on the basis of limited evidence, to refute a theory that cannot successfully be disconfirmed on a narrow basis (e.g., Petrasek 1980). McLuhan's work makes clear that in communications research, comparative study is important, as are a historical and culturally-sensitive perspective. The problem for such researchers is that they are so intent on disproving McLuhan that they fail to read his work carefully, and instead too often extract small parts and substitute these for the whole (a fallacy of misplaced refutation, symptomatic of the difficulty of professional communications between specialists and generalists). In the earliest days of TV's introduction in North America, the public would watch test patterns outside department store windows. Later, Bruce Springsteen sang "57 channels and nothing's on."

Television, or any other medium for that matter, does not remain static--despite the misleading fact that the name does not change, as McLuhan was well aware. Yet in spite of these cultural and demographic differences, similar patterns have been found worldwide. As noted above, one common effect of the introduction of television has been the substantial alteration in worldwide household and family habits. It is well known, for example, that the first television, considered as an unusual piece of furniture, is placed where the "family" gathers, and reconstructs the "living" or "recreation" space. N## A promising application of the theory of mediamorphosis would combine the work of ethnographic grounded theory endorsed by Lull, with the social scientific and historical approaches developed by Meyrowitz.

Media as environments

Media as cultural environment and the impacts of TV versus print are explored by Neil Postman in *Amusing Ourselves to Death: Public Discourse in the Age of Show Business* (1985). New York University English professor, Neil Postman was a graduate student when he first became mesmerized by McLuhan. In his many books, Postman battles against what he considers to be the disastrous consequences of television, and thus returns to the sermonizing jeremiad abandoned by McLuhan after *The Mechanical Bride*, while insisting on the value of McLuhan's contribution. He served on the thesis committees of both Meyrowitz and Paul Levinson (considered below). Thus, Postman has contributed to providing one of the few fertile spots in the U.S. for serious encouragement of McLuhan's ideas. Postman applies McLuhan's theory of mediamorphosis by extending his best-known historiographic propositions in a sweeping argument regarding the patterns of historical media change, calling his book "an inquiry into and a lamentation about the most significant American cultural fact of the second half of the twentieth century: the decline of the Age of Typography and the ascendancy of the Age of Television" (1985, 8). The key word here is "lamentation." Postman's work illustrates both the importance of the linkage between media study and historiography, and the appeal of nostalgia and the counter-themata of technological pessimism.

Rhetorically, Postman acknowledges his debt to McLuhan, and eloquently restates McLuhan's arguments while drawing his own radically pessimistic conclusions. The chief distinction is that Postman laments the decline of print-based public discourse, and its replacement by a "descent into a vast triviality" (ibid., 6). Of his central thema he says: "If all of this sounds suspiciously like Marshall McLuhan's aphorism, the medium is the message, I will not disavow the association (although it is fashionable to do so among respectable scholars who, were it not for McLuhan, would today be mute)" (ibid., 8). To understand the electronic revolution, he writes, particularly the introduction of television, one must read McLuhan (ibid., 145).

The virtue of Postman's application is that, despite his obvious disagreements with McLuhan, he eloquently restates McLuhan's (and the Toronto School of Communication's) fundamental themata. Take, for example, the medium is the message, or environment. Postman brings out the significance of this general proposition as a form of cultural hermeneutics:

> Television has become, so to speak, the background radiation of the social and intellectual universe, the all-but-imperceptible residue of the electronic big bang of a century past, so familiar and so thoroughly integrated with American culture that we no longer hear its faint hissing in the background or see the flickering gray light. This, in turn, means that its epistemology goes largely unnoticed. (ibid., 79)

Carrying his translation further, Postman argues that "the medium is the message" means that, "each medium, like language itself, makes possible a unique mode of discourse by providing a new orientation for thought, for expression, for sensibility" (ibid., 10). Furthermore, Postman amends the term "message," preferring McLuhan's alternative version (*Understanding Media* 1964, 57), that all media are metaphors, the phrase then becomes, the medium is the metaphor. Postman writes: "[W]orking by unobtrusive but powerful implications to enforce their special definitions of reality... our media-metaphors classify the world for us, sequence it, frame it, enlarge it, reduce it, color it, argue a case for what the world is like" (1984, 10).

Subtly but surely, Postman amends McLuhan to advance the dystopian case that insofar as television has displaced the book (ibid., 141), it has degraded the public

discourse, so that "we move rapidly into an information environment which may rightly be called trivial pursuit" (ibid., 113). Retrieving arguments advanced earlier in *Teaching as a Conserving Activity*, Postman accepts McLuhan's point that the introduction of major new media has led historically to the devising of new curricula. As McLuhan argued beginning in 1951, and continued to argue once he decided that the new electronic media could engender, and not simply obliterate, intelligences and artforms, the media can be expected to have profound effects upon the young. Postman considers television a kind of curriculum, "a specially constructed information system whose purpose is to influence, teach, train or cultivate the mind and character of youth" (145-46). McLuhan argued along similar lines, however his point was that (as I will rephrase it) the dominant medium is the cultural curriculum, an environment that young and old remake daily in use and which processes us, usually unconsciously. Thus the curricular function of television was an unintended consequence of TV's development, a position that seems closer to the historical case. McLuhan went further and argued that counter-environments--including a curriculum incorporating media study--were urgently needed, and could be consciously devised. Recall McLuhan's deeply ambivalent question: "Is not education civil defense against media fall-out?" Postman makes a similar case (162-63) and thus in an important sense ends his jeremiad with a call for educational reform. Of his proposals for reform Postman remains pessimistic, arguing: "Our schools have not yet even got around to examining the role of the printed word in shaping our culture" (ibid., 162). McLuhan reached the same conclusion in *Project in Understanding New Media* in 1960. Postman's warnings hold a clue to what is missing from communications study and the public debate triggered by McLuhan in the 1960s, since McLuhan's exhortation to take up study of the forms of media has been neglected as a variant of technological determinism. As Postman says:

> The problem, in any case, does not reside in *what* people watch. The problem is *that* we watch. The solution must be found in *how* we watch. For I believe it may fairly be said that we have yet to learn what television is. And the reason is that there has been no worthwhile discussion, let alone widespread understanding, of what information is and how it gives direction to a culture....We have apparently advanced to the point where

> we have grasped the idea that a change in the forms, volume, speed and content of information *means* something, but we have not got any further....It is not important that those who ask the questions arrive at my answers or Marshall McLuhan's (quite different answers, by the way). This is an instance in which the asking of the questions is sufficient. To ask is to break the spell (ibid., 160-61).

In *Electronic Hearth: Creating an American Television Culture,* Vanderbilt University English professor, Cecelia Tichi, opens by observing that McLuhan's pioneering insight that media operate as environments, and that new media create new environments, remains unabsorbed in accounts of the impacts of television on culture (1991, 3). This seems especially puzzling, she notes, since his unorthodox insight asserted in the 1960s has been appropriated by later communications theorists, including George Gerbner, and popularized by others, such as Jerry Mander. Tichi explains this anomaly by asserting McLuhan dissuaded those who followed him from scrutinizing this media as environment by presenting the case as to how and why this environment was invisible and imperceptible. This shallow reading, uncharacteristic of this insightful scholar, provides further evidence of the fragmentary presence of McLuhan's insights in the works of those who would extend his legacy, due to the long shadow cast by the forging of a negative consensus.

Rhetorically, Tichi praises McLuhan as "unsurpassed as the most prominent theorist of media;" yet, the lapse is striking, and reveals the deformation of the rhetorical space surrounding McLuhan's legacy. Throughout his works, McLuhan stressed the urgency of the task of attending to the impacts of media environments. He called upon amateurs and professionals, artists and technologists, to assist in this crucial task of understanding media environments. He stressed also (as did Edward T. Hall) the difficulties involved since any new medium imposes an invisible set of ground rules. Tichi shares McLuhan's sense of urgency, but fails to appreciate its full import. The point is hardly trivial (and will stand in for many similar omissions). This decontextualization of one of McLuhan's phrases from the meaning evident in his work read whole prevents the readers from grasping that McLuhan's entire oeuvre is dedicated to changing this situation. His task was to raise to consciousness this unconscious environment of media. Tichi continues

this task admirably, and would be unable to conceptualize her study as she does without this crucial insight. It is equally obvious that Tichi could not get away with such a superficial reading of a Riesman, Roosevelt, or Emerson--all figures mentioned in her account. How is it then that even those in sympathy with McLuhan's goals misrepresent his work to such a major degree?

Rhetorically, Tichi positions McLuhan by contrasting his work with that of Postman, making the familiar observation that Postman turned McLuhan on his head (ibid., 174-75). She criticizes the dualism evident in the work of both, noting: "Even the preeminent spokesman on behalf of the television era reinscribes the polar opposition between the cultures of print and of television" (ibid., 183). McLuhan's work cannot be reduced to this dualism. But she presses further and raises revealing questions about why McLuhan defied a conventional view of rationality and thus contributed to the forging of the negative academic consensus: "In the earlier 1960s, Marshall McLuhan, unsurpassed as the most prominent theorist of media, cast his ideas and opinions in rhetoric certain to terrify those committed to the culture of print." She cites his fundamental challenge: "Western values built on the written word ... are in a precarious position because of "a new electronic technology that threatens this ancient technology of literacy built on the phonetic alphabet" (ibid., 84-85). Unequivocally, he proclaimed the "ecological sweep of the new electric media," especially television, and dismissed those committed to print as old-fashioned conservatives unable even to offer "token resistance" (ibid., 179).

> But this professor of literature, by training and profession a man of letters, must surely have understood the impact of his rhetoric on his professional colleagues and on their cohorts in journalism and other print forms when he reminded them that their predecessors, the medieval scholastics, were driven to extinction by the printed book, and when he then proceeded to declare the new electronic media, especially television, to constitute a sweeping epistemological revolution "vaster in scope than that of Gutenberg. (Ibid., 162)

In his rhetoric, McLuhan both named and also nurtured the "current anxieties," even the "moral panic...of civilized man concerning the written word"(84) and particularly his point that "A moral point of view too often serves as a substitute for understanding in

technological matters" (ibid., 150). She also (184) unusually picks up on McLuhan's own anxieties in *Understanding Media*: his horrific satirical concern over the hazards of leasing out a monopoly on our common senses to private commercial interests; the grisly diagnosis of collective surgery performed on the body politic; and need for whole cultures to reprogram.

With McLuhan's insight into media as environment as point of departure, Tichi returns to the subject of the intersection of technology and culture which she explored for the period 1890-1920, in an earlier book. Following the path of McLuhan's pioneering work in *The Mechanical Bride*, which is however not mentioned,[9] Tichi includes in the purview of her analysis both high and low culture: advertisements and novels; newspapers, cartoons and art to illustrate the construction of America's television culture as environment.

Tichi criticises George Gerbner, who followed McLuhan in describing the mediascape as a symbolic environment in which we are all immersed, because he stopped at content analysis. Tichi uses diverse cultural expressions to probe how U.S. television culture was made, and did not simply happen. Yet she too has difficulty breaking out of the habit, and falls back upon content analysis when the problem she is attempting to solve calls for scrutiny of the dynamic patterns animating what she beholds. When Tichi breaks out of this formula, the effectiveness of this alternative strategy is apparent. She shows the connections between material objects - such as television receivers - and the advertising that helped shape the public response to such devices. Another example is the thematic analysis she performs on various literary works in order to probe the stance of author as insider or outsider to the media culture under discussion. Tichi also skillfully uses the literature to spell out the cultural anxieties in response to this new TV technology, and ties some of these to deeper seams of thought within American culture. For example, the couch potato (in his La-Z-Boy chair) seems to violate the Puritan prohibition against leisure and sloth. She notes, as do most observers, the curious cultural split between attitudes of dread and hope in confronting the prospects of life with technology. However this anxiety is not fully explained.

The reason is of interest. McLuhan provides her central point of departure; however, given the limits of a modified content analysis, in her account this environment remains curiously inert. McLuhan's point (as retraced in the theoretical summary) was that the environment into which we have extended ourselves actively processes us; we interiorize this environmental experience; and this interactive metamorphic process is continuously transformative. Art, literature, ads provide clues to the transformations underway at any historical juncture.

The theoretical points Tichi incorporates to assist her analysis--Raymond William's notion of the flow of television (113-14), Eco's concept of hyper reality and Baudrillard's simulations (Tichi, 129-54)--could better serve Tichi's explorations once the dynamic environment posited by McLuhan is fully incorporated into her analysis. As matters stand, these insights provide scant room for the notion of active audience members who construct daily life within a television culture and environment (e.g., ibid., 104-28). Instead, she retraces the familiar strain of theorizing in her historical account and, against her stated intention presents TV as doing something through content--whether flowing, hyper real, or simulated--to the audience. To get around this problem, she adopts the idea of a shift in the image from the addicted couch potato, to one of dual status whereby TV flows on while life goes on, and asserts the multiplicity of postmodern multivalent consciousness (ibid). Further application of the dynamics of mediamorphosis as traced by McLuhan would improve Tichi's account by directing her attention to ways to regard the environment and the users as active processed processors, as it were, and not simply inert.

Tichi takes up other themes prominent in McLuhan's work. Most promising is the use mentioned above of the notion of insiders and outsiders which raises McLuhan's question of generations and their relationships with media of communications. Here she uses thematic analysis to good effect, as a way of tracing the relationships with media of the authors she considers - as they position themselves in their prose as insider or outside.

Tichi valuably widens the sense of meaningful places where relationships unfold with the newer technologies. In this she is also indebted to McLuhan. Not simply the house, childhood, leisure, conventional categories--she extends her analysis to demonstrate how television technology as metaphor is interiorized, and interpenetrates with psychosocial and biochemical realms, including drugs, to produce what she calls teleconsciousness. Her point is that this cultural assimilation of technology is also its social construction (ibid., 7). McLuhan's inspiration is evident in the attention paid to literary and artistic expression as well as the blurring of artistic and commercial culture. But again the focus on texts and extension of this focus only with difficulty to contexts diffuses the question of media as cultural environments into one of media as multiple messages (of many types, from many sources), rather than the bolder task suggested by McLuhan: how to understand the dynamics of multiple media as manifold operating environments patterning the entire culture.

Tichi ends her book with a sidelong glance at the more recent techno-cultural changes underway, particularly the computer. Yet she appears unaware that McLuhan's mediamorphic analysis posited that a previous media environment becomes readily apparent to observers only when it is on the wane. Thus she (inadvertently) supplies a possible answer as to why the TV culture and its fashioning seem different and coherent: because TV culture is now obsolete although still the dominant consumer medium.

McLuhan would fully endorse Tichi's conviction that "The interpretive obligation to bring that [TV] environment into high visibility is thus more urgent than ever." (4) Once one crosses genres and conventional disciplinary divides, Tichi's work indicates that the texts are now available to extend McLuhan's insights further into history. Tichi's work--and that of Postman--demonstrates that a cultural historian attentive to communications theory and McLuhan's theory of mediamorphosis can continue the lengthy process of unravelling the multiple interactions within the shifting techno-culture.

The New Media and a New Trivium

New media and the ancient quarrel between rhetoric and philosophy emerge in two important applications of McLuhan's themata that work opposite sides of the ancient quarrel between rhetoric and philosophy, the theme of McLuhan's doctoral thesis of 1943, and underpinning for his later work. In *Mind at Large: Knowing in the Technological Age* (1988), Paul Levinson, a graduate of New York University who is now deeply involved with distance electronic education, applies McLuhan's themata of the transformative impacts of technologies and communications media to the question of the growth of knowledge. His book "examines the ways that the human brain works through technology to produce accurate knowledge of the world--knowledge that serves as the basis for subsequent technological transformations of the world to human specifications. This growth of knowledge and human reshaping of the environment is linked to the evolution of organisms and human life" (1988, xiii). Levinson describes his chapter, "The Double Entendre of Communications Media" as an extension to cognition of the media study pioneered by McLuhan (ibid., xv).

Rhetorically, *Mind at Large* is dedicated to McLuhan, whom Levinson regards as pioneer and inspiration. He refers to numerous works of McLuhan, including those after 1964. Again, the shadow of the negative academic consensus looms over Levinson's work, as revealed in his rhetoric. In an earlier paper, "The Technological Determination of Philosophy," Levinson made clear that he rejects technological or any other sort of monocausal determinism (including Marx's economic determinism), but has no doubt that media (by which he means all communications technologies, including speech) have impacts, which he traces. Clarifying one's position vis-à-vis the question of technological determinism is a necessity before any application of McLuhan's insights can proceed; indicating the continuing hold of the critics' counter-themata. Levinson positions himself within the generation of post-McLuhan (and post-television) scholars who began in the 1980s to defy the orthodox consensus against McLuhan's work. This challenge to received wisdom on McLuhan first became apparent in a collection of essays on McLuhan in the *Journal of Communications* (1981), where Levinson took the philosophical/rational side of the ancient quarrel, but without explicit recognition of the

other side of the quarrel, that of the rhetorical grammarians with whom McLuhan identified his position--a point established in his condescending reference to McLuhan's "charming contempt of logic" (1982, 180). Anticipating his later book, Levinson wrote: "McLuhan's work is part of the great human tradition of rationality both because of, and in spite of, itself" (ibid., 179). The philosophical/rational side of the ancient quarrel has always attempted to appropriate for itself the rhetorical/grammatical tradition with which McLuhan identified his position. In his more recent work, in an interesting aside (143) Levinson identifies himself as a TV baby, and follows this by a playful reference to his ability to perform as rational author despite this childhood exposure.

Based on his appraisative conclusion that McLuhan is both intelligible and rational, Levinson applies McLuhan's themata in an unexpected and interesting direction. He locates McLuhan's significance in expanding understanding of the growth of knowledge by attending to those areas that had been left out namely, technologies and communications media. Levinson adds to this discussion initiated by McLuhan the case for "evolutionary epistemology" based on the premise that knowledge is both a biological and technological activity (ibid., 1). The expression of rationality (or the extension of ideas into the world through technologies) depends on the media through which knowledge is communicated. Where McLuhan posits an extension of senses, Levinson posits an extension of ideas and mind into the world. Again, this position is identified with the logical side of the ancient quarrel. Missing in Levinson's account is a full treatment of language, and its place in reason. Possibly this is the bridge that might link reason and the artefacts. For Levinson, iIn the beginning was the mind, not the word. He identifies technology as the extension of ideas in material form, which permits communications technologies to be treated as a special case in part because they may be medium as well as message. Levinson phrases the attraction of technology in terms of the abstraction it makes possible, and thus the dissemination among many minds that communication technology permits, as it moves further from the oral condition. So, Levinson argues in his characteristically McLuhanesque discussion of the printing press:

> The coupling of the alphabet and the book, on the other hand, set loose the disseminative powers of both, and resulted in a means for propagation of knowledge that remained unrivalled until the twentieth century. The cognitive intercourse spurred by books created a population explosion of ideas, in which books were the sex cells and the alphabet was the DNA.... The fulfilment of the book's disseminative potential, however awaited the Second Coming of the alphabet in the printing press, a device which at last began to bestow on the alphabet a physical accessibility commensurate to that of the spoken words it recorded.... (ibid., 132).

This long view of history provides a necessary background for Levinson's observations on the twentieth century, where he asserts (ibid., 135) that the computer is revolutionary for both dissemination of the content of printed information, and for development of primary cognition (an application of McLuhan's core dynamics that involve sensory rebalancing or "interiorization"). In a contemporary appropriation McLuhan's theory of mediamorphosis as historiographic pattern, Levinson finds that the process of digitization is "analogous to the alphabet's processing of external reality" (ibid., 135). Levinson takes the position (ibid., 143) that one way TV and radio have had "the least apparent impact on the cognitive process and the growth of knowledge" is the computer however is another story.

The goal of his book--"knowledge of our knowledge processes" (ibid., 147)--is consistent with McLuhan's search for the cultural hermeneutics of media. Yet Levinson advances an alternative core dynamic and interpretation. He finds that the invention and deployment of successively more life-like media are not coincidental: "Eons of natural selection in the organic foundry have resulted in natural modes of perception which are highly efficient--thus the quest for efficiency in information transmission, whether overlaid with commercial, artistic, scientific, or no additional motives, leads quite logically (though likely unconsciously) to the natural" (ibid., 141). The importance of this passage is that Levinson (consistent with his emphasis on rationality) equates the natural and the efficient. This thematic dyad is closer to the work of Innis (who defined empires as efficient communications). It also resembles McLuhan's argument that technology and the mediascape form a new sort of "nature." Yet at another level, it

resembles the rational regard for truth as matching, as compared to the rhetorical and grammatical notion of truth as making something in the world.

Levinson pushes these themata further, and argues along the lines of Havelock and McLuhan, that there may be a biological basis, and an evolutionary dimension to the relationship between our technologies and the growth of our rational knowledge. Within the Toronto School of Communications, Havelock had posited connections between the acquisition of literacy and the evolution of the human species. By 1968 in *War and Peace in the Global Village*, McLuhan expressed his view this way:

> Since the new information environments are direct extensions of our own nervous system, they have a much more profound relation to our human condition than the old "natural" environment. They are a form of clothing that can be programmed at will to produce any effect desired. Quite naturally, they take over the evolutionary work that Darwin had seen in the spontaneities of biology. (36-37)

Levinson's exploration of these themes is important because he opens up the question of the linkage between the development of technologies and communications media, the environments created, and human evolution. McLuhan's religious faith need not separate the two, as it is notable that as McLuhan saw early - this idea of a sort of species evolution based on the modifications of our own minds through relationships with our extensions appears to have originated (in its premodern form) in the work of Vico, who argued that the human species can understand what it has fabricated. There is not yet enough information to indicate how far this themata of techno-cultural evolution can be pressed; McLuhan's role is in part to open up a line of thought (which Levinson and others explore) that brings into new relief the shifting relationships with technology as environment posited as a crucial dynamism beyond natural selection and overlaying the evolution of the species.

What is not clarified in Levinson's 1988 discussion is whether the presumption of progress is necessary to his position that technology is an agent of cognitive evolution. No such progressive assumption was necessary for McLuhan, who tried out various formulations, including a cyclical return of an earlier but not identical post-literate techno-cultural condition (i.e., post-literate orality).

Rejecting the view that technological solutions to human problems necessarily involve "advocacy of a technological escapism" (ibid., 228), Levinson locates technology within the grand evolutionary design of the human place in the cosmos. Here he abandons determinism and pessimism, endorsing instead an "imperialism of the intellect" (ibid., 232). He continues: "human hope remains only a fairy tale until embodied in the human steel of technology and its properties of physical extension, durability, and permanence. The rational, directed component of technology is the hope of the universe; the nuts-and-bolts material of technology is what makes the hope real" (ibid., 229). The large question for Levinson becomes: "the extent to which technology can be rationally directed" given that it is "an instrument of deliberate design in the universe" (ibid., 224). Thus cognizant of the unintended consequences that seem to follow in the wake of all technologies and all growth of knowledge, he adds: "In the new evolutionary schema, human technology proposes, but the cosmos still disposes" (ibid., 231).

Richard Lanham comes at this from anther angle in *The Electronic Word: Democracy, Technology, and the Arts* (1993). A humanist and professor emeritus of English and prose composition at University of California at Los Angeles, Lanham is steeped in study of the history of education and rhetoric. Lanham presents a wide-ranging series of essays on the word under electronic conditions. His province is the humanist deep questioning of the revolutionary shift to the digital word. Lanham became aware later in his career that he was following McLuhan's work on the ancient quarrel between philosophy and rhetoric (1993, 203), and acknowledges McLuhan as "the scholar who, perhaps more than any other since the Second World War, opened rhetorical study to new ways of thinking" (ibid., 58) Lanham also recognizes that McLuhan "made 'media' a household word" (ibid., ix) and "set the agenda for our thinking about electronic media" with his "prophetic vision" (ibid., 124).

Lanham takes issue with two aspects of McLuhan's work, which he considers have misled those who came after. First, he observes that McLuhan did not anticipate digital computing, sticking instead with analogue technologies. Second, and even more

misleading, Lanham claims that McLuhan stopped at television, seeing in this the pinnacle of technological accomplishment. A comprehensive reading of McLuhan provides a more plausible position, while also encouraging the sort of inquiry that Lanham clearly recognizes and pursues. McLuhan ends *Understanding Media* not with television, but with automation. Furthermore, he does not stop there. He interlaces his discussions in *Medium is the Massage* and *War and Peace In The Global Village* with pointed commentary on the computer and its role. Take this representative example : "The computer is by all odds the most extraordinary of all the technological clothing ever devised by man, since it is the extension of our central nervous system. Beside it, the wheel is a mere hula-hoop." (*War and Peace in the Global Village*, 35). In fact, McLuhan discussed the computer in his work from the 1960s onwards. McLuhan's theory of mediamorphosis posits a dynamic and historiographic pattern, not the end of history with television. As for analogue and digital, Lanham is correct that McLuhan does not devote much attention to this, although he is clearly aware of it, punning typically (after Joyce) that the binary computer is "a two bit wit." (His association with long-time collaborator Barrington Nevitt, an electrical engineer, doubtlessly stimulated this line of thinking.) Lanham, like others of lesser insight, has missed the general significance of McLuhan's rich theory of mediamorphosis, likely because he concentrated on the loci classici of the early 1960s. In any event, on this argument, McLuhan's interactive formalism meant that his themata were far broader than the specific technologies or media - it was to the dynamics that he looked to make his broader case.

Regardless of this lapse, Lanham advances a digital humanism, regarding the possibilities of new media at once from an evolutionary view, and suggesting as previously noted that the digital environment may provide the milieu for an unprecedented operating system that will stimulate new forms of creativity and complexity. He thus inherits the optimism of the Catalyst Phase McLuhan, while never abandoning his rhetorical humanist roots. Lanham has anticipated the arguments advanced here in his interpretation of McLuhan as grounded in study of the ancient

quarrel (202), and as incomprehensible to many of his critics because they read him against the grain of his work (i.e., from the philosophical/logical side of the quarrel). Summarizing his work and McLuhan's significance, Lanham writes:

> The rhetorical/philosophical distinction, though [in McLuhan's work] it grows from the technological distinction between oral and literate cultures, concerns more than technology. It debates opposed theories of human motive, human selfhood, and human society.... [The debate] involved the basic positions of our cultural world as soon as the argument opened in ancient Greece, and has done so again ever since McLuhan precipitated it back onto the popular cultural agenda...The deepest debates about TV, about the decline of the book, about the computer as Big Brother or little one, are usually variations on the long-standing debate between the rhetoricians and the philosophers....Around the electronic word, then, around this movement from book to screen, cluster the major humanistic issues of our time (ibid., 203).

Lanham, a dedicated educator, shares the optimism that animated McLuhan's strongest work: the sense of potential in our relationships to and with the new media. He also shares McLuhan's sense that the confusion of rationality with a single technology (print) is the factor that has catapulted the critics into their gloomy moralism. Like McLuhan, he considers it necessary to investigate the current situation on its own terms without premature rejection of important themes. His humanist training and ability to grasp the large context explain his willingness to take McLuhan seriously. As a teacher Lanham shares the pioneering sense of breaking through some of the limitations of the crusty academy. For example, he reveals that he has encountered the stigma of inferiority attached to the notion of training in composition, as opposed to an exclusive focus on theory. He shares a self-perception of being an outsider to the academic system with McLuhan: "In all of large-scale corporate American enterprise, no craft guild has proven more hidebound than the professoriate" (ibid., 211).

Lanham applies this rediscovery of rhetoric (defined as an information counter-system to Platonic philosophy) to develop an evolutionary explanation for the development of human culture and knowledge (ibid., 57). Within the Toronto School of Communication, Havelock placed greatest emphasis on the "evolutionary ingredient" which Lanham views as "the enfranchising framework for rhetoric." (57) By this he

means that the roots of rhetoric can be found in human (and primate) biology and genetic makeup. Lanham asserts that once the ancient quarrel is mapped onto recent developments (such as chaos theory) the prospect exists for a general theory of knowledge (ibid., 61). Reason itself is multiple on this view, not singular. The key insight to this development is what Lanham calls "the bi-stable allusion," a perpetual oscillation between rhetoric and philosophy and their many heirs. This oscillation comes to the fore in a digital age, he concludes, and far from prompting a technological determinism, such developments seem to represent a cultural convergence across many fields, with the following result: "What is extraordinary is not how digital technology has compelled us toward a fundamental cultural reevaluation, but rather how that technology can--if we use it right--express so eloquently an omnipresent reevaluation already in being" (ibid., 84).

Lanham pursues McLuhan's themata of the counter-environment through to the question of a curriculum appropriate to a transformed world, a digital age, observing that, "the electronic classroom has a different motivational mix from the print classroom" (ibid., 127). The electronic ingredients are a mix of game, play and purpose. McLuhan had suggested to Innis that continuities could now be found across all arts and sciences, and across the curriculum. He proposed to his colleague that a school of communications theory and practice be established to transfer this awareness to the educational milieu. Lanham argues forcefully that the electronic text can realize this sort of intellectual objective (ibid., 124-36). A different sort of core curriculum is called for dominated not by print technology but by a new rhetoric of the digital arts (ibid., 130)--an educational practice that is intrinsically theoretical, not mesmerized by the race/class/gender debate, but rather focusing on the fundamental issues of how electronic texts and university structures are changing around us (ibid., 131 and passim).

Lanham and Levinson take up the ancient quarrel, reinscribe it in opposite directions, and raise important questions regarding the history of human transformation and its linkage to media and technologies. These issues, so prominent in McLuhan's work, which have inspired these two scholars, deserve sustained scrutiny.

Media and a new age: Continuities and Discontinuities

Many writers refer to McLuhan as one of the announcers of the information or communications age, often by the metaphorical means of his phrase, "the global village" (e.g., Bell 1973, 55; Beniger 1986, 4; Dizard 1985, 19). Such mention of his work is generally superficial, although recently less dismissive (e.g., Harasim 1993, 8). McLuhan used a variety of terms to describe the twentieth-century techno-cultural transformation:--an information and communications age, an electronic age ("Cybernation & Culture" 1966, 99). As numerous themata are nested within this question of the naming of the age, this section will pursue the rhetorical space surrounding the contested rhetoric regarding current historiographic patterns.

In *Tendencies and Tensions of the Information Age: The Production and Distribution of Information in the United States* (1995) Jorge Reina Schement and Terry Curtis indicate a recent trend towards a less hostile reception for McLuhan's ideas. Nonetheless the deformations of the negative academic consensus are well illustrated in this book. The authors' objective is to supply a social theory, as Theall (1971) had hoped McLuhan would do, while incorporating what they consider to be a more adequate explanation for politico-economic developments. Distinctively, the authors recognize McLuhan and Daniel Boorstin as the two writers whose "near theories" came closest to an explanation for the current situation, add Daniel Bell's post-industrial theory and various neo-Marxists, and offer their own. Thus the pantheon of social theory now incorporates McLuhan, as it becomes less possible to deny that there is some sort of development underway, referred to usually as the information age.

The issue as defined by Schement and Curtis turns in part on the question of whether or not there has been a rupture between the modern industrial period of the nineteenth century, and the so-called information or post-industrial age of the twentieth century. The authors accept the position that such a discontinuity does not exist: "To view the information society as unique or historically unprecedented, reinforces a myth, albeit a powerful one." The neo-Marxist critics somehow believe they have pierced the myth by identifying capitalism as a cause; but Schement and Curtis push this argument further

and argue that the U.S. produces and distributes information as its primary economic activity "precisely because capitalism remains the motivator and industrialism remains the organizing principle" (ibid., 39).

The key myth to which this orthodox view is opposed is technological determinism (ibid., 192-97). To this the authors repeat:

> The point is that machines alone do not make a culture. The culture of the information society resulted from the growth of capitalism and the uses of industrialization to benefit capitalists. Its most important socioeconomic manifestations, the commoditization of information and information work, are the logical outgrowths of capitalism. Individuals invented new information machines, in order to profit from selling information.... Information technology does not produce social relations; rather social relations produce information technology (ibid., 194-95).

Thus Schement and Curtis join numerous writers who conclude that current developments in the information age reflect a variant of industrial capitalism; they also assert that there has been no disjuncture between the conditions described by Marx and the current period. This position amounts to a thematic commitment for continuity and against discontinuity. It is difficult to comprehend how developments such as the Internet can be accounted for on such a diminished structure of motives. Perhaps capitalism itself serves as a necessary mythical figure. Key to the authors' position is their attack on technological determinism. The critique is that technological determinism misleads because it focuses on machines and thus ignores the motives of those who control the system (ibid., 197). The motives of others are assumed, but not addressed. Thus, the authors reason that most Americans focus on the machines, swallowing a myth, and misinterpreting the real source of social reality and change. This would seem to repeat the marxist canard about false consciousness. This debate over continuity or discontinuty is far from settled, and it is flagged here without further detail so as to draw attention to the fact that McLuhan continues to figure in most accounts as a supporter of a discontinuity between past and present (which he was) and that the central flaw in McLuhan's theory is found to be technological determinism (which I have refuted in Chapter 1).

Schement and Curtis make these points with a refreshing lack of rancour. Yet the authors end up with an old, not a new, theory, taking a more conventional rear-view economic line that nothing major has changed, that technological and cultural and all other developments are merely effluents of capitalism (and its byproduct, industrialism) in other guises. The problem is that such a position does nothing to assist in understanding the technologies and media environments which present genuine (not mythic) dilemmas of policy, and of politics, for collective decision making.

Rhetorically, McLuhan is positioned along with Boorstin as presenter of a "near theory" but not a "systematic macro theory" (ibid., 205). The deficiency results allegedly from the observation that most authors looking into the information age "retrenched and largely ignored the goal of explaining society." The chief problem with this argument is the reduction of McLuhan's contribution to a form of technological determinism, which from the authors' perspective confers on his work an "interior logic" on the basis of which it can be refuted. The authors complain that McLuhan dazzles the reader with visual images, while making little attempt to consider the social relations surrounding whichever medium he is explaining: "There is no room for explanations involving currents of history or the nuances of culture" (ibid., 208). This seems far fetched, particularly in light of the characteristic reduction of all motives to the motives of capitalists. It is (as Theall had argued) McLuhan's lack of a social theory that chiefly concerns these authors, however ne could argue that McLuhan said more about historical and cultural change than these authors, who spend much of their argument denying such change. The authors seem correct in their conclusion that McLuhan did not have a full blown social theory; however, one may argue that one reason he did not is that his efforts were directed at diagnosing the conditions underlying all social theories (his cultural hermeneutics) and thus provides a valuable addition to inquiring how social theory itself is transformed under conditions of changing media, and in the contemporary period, under electronic and digital conditions.

The authors recognize that the work of McLuhan (and Boorstin) moved communication and information studies to a new plane. I challenge, however, their

assertions that McLuhan does not deserve a following of theorists; that his work cannot be formulated into hypotheses to guide rigorous research and that research agendas have not resulted from his work (ibid., 209). I would argue rather that his influence has been so fragmented, pervasive, yet nonetheless, inspirational, that work on his theory of mediamorphosis has barely begun.

Rhetorically, the authors largely cleave to a neo-Marxist economic interpretation, despite their self-declared intent to arrive at a social theory. The neo-Marxist or political economy rejection of McLuhan is a self-conscious and tactical move as seems evident from Kellner's reconstruction of McLuhan as "technological reductionist and determinist" (1989, 132). In the rhetorical space of his critics from right and left, McLuhan's work is commonly reduced to and dismissed as a form of "technological determinism," the heaviest epithet that can be applied within the rejectionist rhetoric. But there is more, as these authors repeat the tired conclusion that: "Most scholars recognize McLuhan as a disciple of Innis." If so, they have not read McLuhan fully. Typical of this error, the authors attribute study of Giedion's important and influential works to Innis, when it is McLuhan who wrote Innis about Giedion (*Letters* 1987,). Innis mentions Giedion in a minor footnote (*Bias of Communication* 128, n.132). These seem--and are--small points, but they add up and their casual repetition has guaranteed them a kind of value that they do not warrant. Also characteristic of the rhetoric on McLuhan, the authors cannibalize McLuhan's insight on "media as cultural environments" into their discussion. The choice of this phrase and lack of acknowledgement in a work that elsewhere foregrounds McLuhan's contribution points to the present absence of McLuhan's themata, and the fertility of the shifts in thinking and vocabulary directly traceable to McLuhan's controversial achievement. As noted above, it is through this operation of media as environments that McLuhan argues not simple determinism, but rather transformation, which is neither utterly inevitable, nor utterly within our personal freewill. Yet this aspect of his legacy is detached from his contribution. Who then is guilty of perpetuating myths? One could make a case that the myth of McLuhan as technological determinist has run its course as a tactic of rejection.

On another front, that of the master builders of a new age, numerous works have appeared that credit McLuhan's influence on many creative individuals who came of intellectual age in the 1960s and who have subsequently designed the machines, networks and concepts that empower the information age. Howard Rheingold is the prime chronicler of recent information age activity, and McLuhan figures in his *Virtual Reality* (1991) as a background influence on many of his protagonists, a part of the climate of thought and 1960s or counter-culture Zeitgeist. In his survey of virtual reality, he cites, for example, Alan Kay, a chief architect of the "personal computer" who credits the inspiration of McLuhan in the late 1960s for helping him to think of the computer as a medium, not a tool (1991, 85). This insight combined with McLuhan's theme of how we learn by extending our senses as instruments of exploration (attributed to another explorer Jerome Bruner) (ibid.) play a role in the invention process. In this aspect of McLuhan's legacy, his influence consists in inspiration for invention, especially for the TV babies. Rheingold quotes Kay's 1990 statement:

> Though much of what McLuhan wrote was obscure and arguable, the sum total to me was a shock that reverberates even now. The computer is a medium! I had always thought of it as a tool, perhaps a vehicle - a much weaker conception. What McLuhan was saying is that if the personal computer is a truly new medium then the very use of it would actually change the thought patterns of an entire civilization. He had certainly been right about the effect of the electronic stained-glass window that was television--a remedievalizing tribal influence at best. ... What kind of thinker would you become if you grew up with an active simulator connected, not just to one point of view, but to all the points of view of the ages represented so they could be dynamically tried out and compared? I named the notebook-sized computer idea the Dynabook to capture McLuhan's metaphor in the silicon to come (ibid., 93-94).

These words stand in for those of many others who felt that "shock that reverberates" and were inspired to action. The subtitle of Rheingold's book, "The Revolutionary Technology of Computer-Generated Artificial Worlds--and How It Promises and Threatens to Transform Business and Society," makes clear that a discontinuity is assumed. Many of those influenced by McLuhan feel as though they have lived through this period; some feel they have had a hand in creating this new reality. There is an

unwritten history (written perhaps in the margins of diverse accounts from the front lines) of interconnections between the 1960s counter-culture (which took up McLuhan as a totem and inspiration) and the 1990s wired world.

As these remarkably divergent applications of his ideas should make clear, the historically effective force of McLuhan's ideas is not exhausted.

McLuhan's extended circle

McLuhan's extended Toronto circle has applied his work in diverse directions. The posthumous works, *Laws of Media* and *The Global Village*, had the quality of pastiche and initial sketches, as though the artist assigned completion of an unfinished canvas to a competent but uncelebrated associate. In similar vein, the literature of the 1990s mostly repackages McLuhan's previous writings and provides sometimes insightful commentary (e.g., McLuhan and Zingrone; Southam/Voyager Benedetti and DeHart; Nevitt and McLuhan), but without extending McLuhan's ideas very far. Considered as direct extensions of McLuhan's work, authors Eric McLuhan and Bruce Powers added new references and their own commentary to topics prefigured in McLuhan's writings. Among McLuhan's extended circle, the most significant and original applications of his theory of mediamorphosis to the present are found in the works of Derrick de Kerckhove and Robert Logan, both of whom had collaborated with McLuhan.

Derrick de Kerckhove's *The Skin of Culture: Investigating the New Electronic Reality* (1996) represents one in a series of works prepared by de Kerckhove, who had previously translated McLuhan's *Cliche to Archetype* into French, and worked with McLuhan as his translator. A professor of French at the University of Toronto and, since 1992, Director of the McLuhan Program in Culture and Technology, de Kerckhove applies McLuhan's insights to more recent techno-cultural developments, such as the Internet and World Wide Web. de Kerckhove's institutional role provides a backdrop to these activities, as he has maintained this centre despite a lack of interest and limited funding from the University of Toronto. Rhetorically, de Kerckhove speaks increasingly from the poetic dimension of McLuhan's theory of communications, as he has shifted

from publishing scholarly papers on rhetoric and neuro-cultural research to an ongoing attempt to reach a wider audience by applying updated insights of McLuhan on assorted phenomena such as connected intelligences. Nonetheless, de Kerckhove has pursued substantive thema stressed in McLuhan's work, including the significance of the alphabet and chirographic patterns of writing on the brain, and the significance for business and social organization of the extensions of the nervous system into a global village through electronic technologies. de Kerckhove's work on the alphabet emphasizes the neuro-cultural interface, while his parallel line of work on the psychotechnologies of the self (Crowley and Heyer 1991) develops the idea of the fashioning of the self system through historical relationships with media.

McLuhan's attempt to locate the dynamics of techno-cultural transformation in psychic mechanisms and connections among the brain, senses and central nervous system received a boost with publication in the early 1970s of Krugman's findings, which supported the idea that television stimulated a different part of the brain from print. McLuhan's speculations on the significance of the two hemispheres of the brain as moulded by exposure to media has received little further study; however, more is now known about the hemispheric model of the brain championed by McLuhan (e.g., Corballis 1991). It is no longer possible simply to dismiss the question of the historical (and evolutionary) impact of an asymmetrical brain structure, while a simplistic two hemisphere model has become more nuanced. de Kerckhove has extended McLuhan's speculations, and applied them as working hypotheses for a new field called "neuro-cultural research," which studies the conditions and effects of the interaction between the nervous system and the environment or the cultural objects which define the various human environments (1984, 131). The field brings newer research and greater precision to McLuhan's core dynamics, taking as a premise his intuition that electric technologies extend the human nervous system, and create new environments, which then reprocess the sensory ratios or patterns. During seminars held in Toronto and Venice (1982), Paris and Toronto (December 1983), and Orleans and Toronto (January

1997), scientists and social scientists met face to face or via video-conferencing to pursue these insights in light of more recent research.

de Kerckhove's recent book extends these applications in a more popular direction. Originally prepared as *Brainframes* (1991), de Kerckhove was assisted by the poet, Chris Dewdny, to redo the book in mindbites which present a kaleidoscope of insights into the current situation. The title takes off from McLuhan's phrase: "In the electric age, we wear all mankind as our skin." The theme of discontinuity is evident: "We are already in a new age." McLuhan's theme of extensions is applied to human psychology as well as our nervous systems and bodies. de Kerckhove assembles evidence, including experiments with a head-mounted camera and brainwave monitors at Simon Fraser University, to support the notion of direct physiological effects of the media, notably how television speaks to the body not the mind. He retrieves from McLuhan the idea that television extends the sense of touch, which becomes a dominant sensory mode for an electronic age. de Kerckhove endorses the idea of a cyclical historiographic pattern, and argues approvingly for a return of an earlier oral mode. Retrieving also McLuhan's ideas about a coming global consciousness brought about by electronic technologies, de Kerckhove restates the relevance of neuro-cultural research:

> According to neuro-biology, we grow into our environment not only anatomically, following genetic programming, but also neurologically, following cultural programming. Our brain, though initially geared to develop according to cross-culturally common programs, is gradually exposed to more and more exclusively cultural influences and conditioners that require selective responses and define the ratio of our sensory inputs in daily life. (1996, 102)

de Kerckhove draws extensively on the work of the neuro-biologist, Jean-Paul Changeux, who has theorized that consistent environmental conditioning may bring about "selective stabilization of synapses" (ibid., 103). From the first medium, language, de Kerckhove presses his argument into the present where newer technologies notably the Internet permit him to posit an emergent form of collective planetary intelligence (ibid., 190). This vision is optimistic but not monolithic, as de Kerckhove remains hopeful about the ability of diverse cultures to thrive. Sensitive to more recent research

that presses the notion that the user--and the audience--is the content and author of the media mix, for de Kerckhove, McLuhan's classic phrase, the medium is the message, becomes the medium (and the context) is the message (ibid., 122). Thus de Kerckhove adds his voice to the mosaic of applications of McLuhan's insights, addressing the core dynamics and the historiographic patterns of the theory of mediamorphosis. As de Kerckhove shows in *The Skin of Culture*, given the scope of his theories, there are many different ways to extend McLuhan, including the poetic.

Recent research into the brain, which supports the notion of critical stages in neuro-physiological and sensory development, and the conditioning role of the environment in development of neural pathways, provides fresh impetus for reconsidering McLuhan's embryonic speculations on the shaping powers of media environments, as de Kerckhove has suggested. However the animus against McLuhan's work and fear of association with any form of technological (or biological) determinism has contributed to a neglect of the relevance of the media and techno-cultural environment as an important means to investigate these significant topics.

Robert Logan's most recent work, *The Fifth Language: Learning a Living in the Computer Age* (1995), extends themes he had previously developed in collaboration with McLuhan. A professor of physics at the University of Toronto, and active member of McLuhan's extended outer circle, Logan's previous collaboration was first published as "The Alphabet: Mother of Invention." Subsequently influenced by the work of Denise Schmandt--Besserat[10] on the historical development of writing, which linked the earliest form of writing to numeracy and accounting in pre-Phonetic alphabets, Logan continued this line of research and his own developing thoughts in his book *The Alphabet Effect* (1986). He positions himself within the heritage of the Toronto School of Communications and usefully summarizes the basic propositions advanced by Innis and McLuhan (14-61).

Logan (1995) has extended McLuhan's theory of mediamorphosis into the domain of education and work in the twentieth century. The book originated as a study of the uses of microcomputers in the classroom. Following McLuhan (and Carpenter), Logan applies

the idea that computers are not simply tools, or media, but also languages. Learning the new language of computing requires a new computer literacy. This focus permits Logan to trace five languages that he considers part of the human heritage, and which should be part of the educational curriculum: speech, writing, mathematics, science, and computing. By placing the discussion of media literacies within a mix of various cognitive and communicational literacies, Logan broadens and applies McLuhan's aphorism that, in the information/electronic age which succeeds the industrial/mechanical age, what matters is no longer earning but learning a living. Providing the skills for life-long learning thus becomes crucial for the curriculum. McLuhan's notion of the curriculum as a kind of counter - environment shows up faintly in Logan's analysis of what is wrong with the educational system. Logan argues the familiar point from education critics worldwide that the schools are doing the job of the nineteenth-century Industrial Age amidst the twentieth-century Information Age. McLuhan's approach seems more subversive in that he appeared to believe that a counter-environment designed to engender critical thinking about the invisible media environment (and real curriculum) was a necessity.

Logan's distinction is his background as a physicist, and comfort with mathematics. In fact, where his work departs from McLuhan's (a point he does not acknowledge, but which comparison with Lanham's contribution easily demonstrates) is in his emphasis on the notion of an evolutionary scheme for verbal languages, which implies placing a higher order value on numeracy in its various forms (mathematics, science, computing). Other aspects of McLuhan's work that are extended by Logan include the broad designation of knowledge as crucial to new forms of wealth creation, organizational change, and the impact of new information technologies on the relationship between work and learning. Here a humanist approach is clearly required in order to bridge the knowledge gap between natural science, and the humanities and social sciences.

As noted previously McLuhan has been criticized for his lack of attention to the question of socio-economic and political power, areas whereas Innis appears to have gone further. Logan incorporates a notion of social class in his approach, and observes

that agriculture led to the formation of the aristocracy, print literacy to the formation of the middle class, and the information revolution may lead to the emergence of a distinctive "computerate" class. Yet he posits that all class distinctions are merging, while maintaining that the control of information will become the key to success and power and confer advantages upon computer literates (294).

As the divergent applications of McLuhan's theory of mediamorphosis by de Kerckhove and Logan illustrate, McLuhan's legacy is applied in diverse and sometimes contradictory ways even among those who consider their work most directly associated with his. The fragmented influence endures. Yet this very divergence also indicates a prospective fertility. When a Darwin emerges with a synthesis of the evolution of human species adaptation to its historically changing techno-cultural environment, he or she will be deeply indebted to the scope of McLuhan's theories. Logan takes us closer to a natural scientific version of that synthesis; de Kerckhove to a poetically-expressed amalgam that embraces natural science, social science and the humanities. Rhetoric and grammar, logic and philosophy, all will be required for this synthesis. Perhaps complexity theory (Waldrop 1992) itself a theoretical innovation unthinkable without computer technologies, points to the direction that will be required. McLuhan's insights into mediamorphosis can be retrieved within this prospective framework.

Conclusion

McLuhan's first legacy is the vocabulary he bequeathed to a media-saturated age. His conceptual insights are embodied in memorable phrases--notably, "the medium is the message" and "the global village," but also others, such as looking in the rear-view mirror to see where we are going, media as environments, as metaphors, as languages, and reorganization of the ratio of the senses. These phrases circulate as fragments which have become metaphors we live by, in Lakoff and Johnson's (1980) sense, embedded in debates over techno-cultural change. Catchphrases in both the mass media and academic publications, these metaphors both resonate with and help to shape the imagination of common experience; for this reason they endure within popular and scholarly

conversations about media, techno-cultural change, and popular culture. By directing attention to media as environments, not as contents, and by challenging the pipeline metaphor so deeply embedded in the language (Reddy 1979), McLuhan provided an alternative to the transportation model with his transformational model of communications. His contribution, inspired by Innis, altered all subsequent approaches to the study of media. In an ancient rhetorical sense, McLuhan's legacy lies in the art of inventing terms and arguments which capture and express the imaginative ground out of which the language of self-awareness emerges for a new age.

Equally evident is the fact that definitions continue to be hazy in the post-McLuhan period. Media, technology, culture, information--these terms are used in different ways by different authors, and within different disciplines. This problem cannot be blamed on McLuhan, without whose creative contribution the language of such discussion would be grossly impoverished. The solution is not to stop using the terms, for this move would succeed only in displacing the issues under scrutiny onto other terrain. The answer lies - as he recommended - in probing more deeply into the meaning of these important elements not as abstract systems, but within the ground of human experience. All the disciplines within the natural and human sciences can contribute to this task. The solution lies also in making further attempts to agree upon common meanings in use within specified contexts. This is where the lack of a common interdiscipline which can exchange and apply McLuhan's ideas frustrates the further development of this line of thinking, as Meyrowitz noted. The orthodox rejection of McLuhan has contributed to a miscomprehension of the contributions of McLuhan and the Toronto School of Communications, unnecessarily frustrating all attempts to arrive at insightful solutions.

Chapter 4 has found that increasingly a construction of McLuhan as pioneering catalyst is used as a way to break new ground, and to signal that this is what the author is up to. I submit that this phenomenon points to the demand for fresh and multidisciplinary approaches, and the recognition by some that so far McLuhan has not been surpassed at opening up a complex family of issues that invite further and sustained investigation. The texts discussed above follow in the path of Ong (for orality literacy)

and Eisenstein (for the printing press), each of whom applied McLuhan to the task of breaking out of conventional patterns of thinking about media and techno-cultural change. More recent efforts differ in that the animus against McLuhan's work is less pronounced. Thus I conclude that fertile fragments of McLuhan's works and themata will continue to emerge in texts that advance understanding of the contemporary and historical impacts of communications and information media. The texts in question will use McLuhan both as ground for their contributions, and as figure, as a way of calling attention to newer ways of thinking about communications media, and thus of reclaiming a pioneering spirit by defying the orthodox rejection, and invoking the master who has been shunned by much of the academy.

The animus dissipates slowly, but lingers still. With rare exceptions, even the most fruitful extensions of his work are based on *The Gutenberg Galaxy* and *Understanding Media* of the early 1960s, as few authors followed the further development of McLuhan's ideas. Like gadflies frozen into fossils, McLuhan's earlier texts marked his thought as reflected in the work of others: this was how far the critics would go, and they followed him no further. Even then, the interpretations were often superficial. Later ideas did not make it into the conversation at all.[11] As a result McLuhan's insights appear fragmentary, not primarily because his formulations were too cryptic, but rather, because they lacked a coherent critical ground in his work as a whole, and an intelligible context in the communications history tradition which originated as the Toronto School of Communications. His work was in this sense--and paradoxically--too pervasive, too influential.

This examination has indicated features of the deformation of the rhetorical space surrounding McLuhan. There is reason to believe that the careful effort invested in "normal" scholarship (in Kuhn's sense) is often missing with McLuhan. Sometimes the author seems careless, as with Tichi's erroneous charge that McLuhan had concluded it was impossible to discern the invisible media environments, or as with Lanham missing McLuhan's comments on the computer, and qualification regarding his observations on the television medium. Most serious for the legacy of McLuhan is the enduring charge of

technological determinism, repeated by Schement and Curtis, a charge which has steered many students away from a genuine encounter with the interactive formalism and inquiry into mediamorphosis that marks his work. All the authors surveyed display a defensiveness regarding this question, indicating the success of this counter-themata. It makes more sense to argue with McLuhan that "there is absolutely no inevitability as long as there is a willingness to contemplate what is happening" (*The Medium is the Massage* 1967, 25). By this McLuhan meant to direct attention to powerful media forms and technologies as shaping factors in cultural (properly techno-cultural) history. This reductive critique of technological determinism deflected attention from the questions McLuhan raised, which could only be answered by taking up the difficult task of scrutinizing the long term shaping effects of media and technologies. Post-McLuhan, some have variously and fruitfully documented aspects of these cultural mutations. An author indebted to McLuhan (whose work has gone unmentioned only because it does not deal with the post-War period) shows the fertility of such approaches: Stephen Kern in *The Culture of Time and Space*: 1880-1913 (1983). Academic study of media is well established, particularly in North America and Britain, but within all these works the absence of a more coherent ground for the work of McLuhan (and Innis, Havelock, and the Toronto School of Communications which unites them) impoverishes the field.

More studies should be conducted that take up McLuhan's invitation to make sense of large-scale cultural change by examining media as environments and extensions. The texts considered affirm the fertility of McLuhan's insights for researchers in that he offered relevant hypotheses and conceptual tools for the complex task of interpreting the shaping powers of media environments. Certain common features of the fertility of McLuhan for later applications have emerged in this analysis. These texts recognize that the environment changes as new predominant technologies are introduced, an insight that proves effective particularly when investigating the ongoing shift from television to computer culture. New media transform their users and thus require new skills, skills which if acquired early enough in life, reshape the internal landscape of the generational cohort under the medium's influence.

All these texts follow McLuhan by not taking for granted the invisible environments, but rather, by tracing out their impacts and examining their properties. The idea that new media require new literacies, and promote new ways of coping and new cognitive and learning styles highlights two of the central questions: how the young are to be educated, and what counts as truth. The question of how the medium operates as a cultural curriculum--whether print or electronic--for all members of society thus becomes not the subject of sermons, but of investigation. In the era of the computer the question of how generations are affected differentially by new media has become extremely urgent.

It seems no accident that the common themata of curriculum emerges as a unifying thread in many of these highly diverse texts, signifying (explicitly or implicitly) a linkage between core dynamics and historiographic principles. There is a great deal to explore, and some of McLuhan's legatees have taken up his invitation in diverse directions: Logan traces the shifting curriculum required (he argues) to induct new members into the fifth (computing) language of their time; Lanham finds a renewed sense of the trivium and need for a digital electronic rhetoric. One of McLuhan's collaborative books of the last decade, *The City As Classroom* (with Eric McLuhan and Kathryn Hutchon), indicates McLuhan's fertile approach to media study and the classroom without walls. Greenfield and Healy search inside and outside the classroom for the defining cognitive styles, and trace the linkages to media.

Certain shared themata emerging from this rhetoric of inquiry examination of these texts further illuminate the contribution of McLuhan. Some of the texts (e.g., de Kerckhove; Lanham; Healy) apply McLuhan's insights into the significance of the brain as a mediator between extended environments and the reorganization of the senses in light of more recent research. There is also a recurrence of a linkage between various evolutionary notions and the insight that extensions through media and technologies, and the making of a techno-cultural environment mold human evolution. From diverse angles, Lanham, Levinson, and de Kerckhove find inspiration in this line of thinking, originally suggested for the Toronto School by Havelock. Whether addressing the micro, meso, or macro level of analysis, these authors exhibit an awareness of the larger

historical context within which these events unfold. Sensitive to the charge of technological determinism, all these authors find ways to deny that they intend monocausal theories of history; yet they refuse to resort to conventional content-centred explanations, explanations solely in terms of ownership, or non-explanations which dissipate into the unpatterned particular. McLuhan's pattern-watching provides inspiration that proves fertile for these authors. They are unafraid of crossing disciplines and of resorting to anecdotal observation where more formal studies have not been conducted, as in the case of Greenfield. They are also unafraid of incorporating evidence drawn from popular culture, everyday life, or their own direct observation (Meyrowitz; Lanham; Healy; de Kerckhove).

What McLuhan did not arrive at was any successful definition of a curriculum to counteract the effects of media that he diagnosed. His answers vary. At points he implies that the new media technologies require that everyone become an artist. At other points he suggests that a multimedia diet (as Greenfield also suggests) is the best approach as some media counteract others. At yet other points he insists that the need to pay attention is what will ward off the dangers; by studying the patterns of force put in play by media and technologies, we will be able to guide ourselves accordingly or collectively control these forces. Scrutiny of the texts discussed suggests that it is fruitful to couch the issue of the search for a strategy of culture in terms of the search for counter--environments. This seems to explain why so many of the texts discussed take curriculum--in one form or another, inside or outside the classroom--as central to the discussion. History itself may provide an important counter-environment, a point implicit in McLuhan's own work. The search for historiographic patterns and core dynamics linking media and cultural change leads inexorably to the question of education and the curriculum, inside and outside the classroom. But as McLuhan clearly saw, and as Logan reminds us, in the contemporary period the issue is not simply schooling for the young, but rather learning a living. As Lanham finds, echoing McLuhan, these questions lie at the historic centre of the humanist question. Other forms of counter-environments suggested in McLuhan's work have been less explored, such as the arts and artists as distant early warning

systems, despite the global efforts by de Kerckhove in this area. The retracing of the cognitive process which had so inspired McLuhan in the works of Joyce and the Symbolists offers useful insights into the creative process as a strategy of culture. Looking to present technologies themselves as potential counter-environments supplies another example.

Chapter 4 confirms that the controversy surrounding McLuhan's contribution, and the lingering academic hostility towards his style and his work, have deformed the rhetorical space where his contribution to study of communications and information media are understood and interpreted. Due to the persistent condemnations of McLuhan as rogue scholar, enemy of the book, technological determinist, and global millennial utopian, and due to the orthodox rejection of his style, mutatis mutandis his ideas have not received the full attention they deserve. The intellectual controversy surrounded his work has occluded or prematurely foreclosed certain themata and avenues of investigation that may yet prove fruitful. The sympathetic works under discussion in this Chapter offer some confirmation of this aftermath of the controversies. Later researchers are discouraged from taking up his lines of investigation; or once discovered, the old quarrels (notably the reduction of any attention to technology as technological determinism) retard the debates. Yet perhaps because another technology (computer-based media) is raising some of the same questions as previous media revolutions, McLuhan's insights are once again relevant. The loss of the ground in which McLuhan's work and persona figure - which I seek not to lament but to reverse - results in an occlusion of recognition for the promise of the communications history tradition in which his work is associated with that of Harold Innis and Eric Havelock. In sharp contrast to this received wisdom, it is argued that, once recontextualized, McLuhan's theory of mediamorphosis offers an unexhausted source of insight into the dynamics of techno-cultural change.

A partial inventory of under-explored insights would include the general question raised by the prospect of revolutionary techno-cultural change. Instead of a medium theory, his theory of techno-cultural transformation or mediamorphosis suggests that

everything has changed under electronic conditions, as it did previously under mechanical and prior to that under conditions of literacy. Media forms are not static, but evolve. McLuhan points to the resonance of this evolutionary pattern with culture by looking at the reorganization of the senses in interaction with the changing cultural environment into which we extend ourselves collectively. McLuhan would have been fascinated by the new "science of complexity" (Waldrop 1992) which as a field of study he would doubtless explain as a consequence of and adaptation to the development of recent information processing media. The metaphor of the computer, and of complex adaptive systems--a core concept for the new science--would provide compelling support for some of McLuhan's earlier speculations about the role of media as extensions. His speculations on the importance of the brain and its role in mediating the core dynamics of techno-cultural transformation point perhaps to a line of research that links the complex adaptations of the human species to the history of its media extensions.

His insights into new media as new languages requiring new literacies offer ground for hypotheses on the extension of our nervous systems into computer networks, such as the Internet and World Wide Web. The idea that planetary communications networks hold the promise of global consciousness and even a global brain - as de Chardin posited in his concept of the noosphere, and as de Kerckhove has argued more recently - seem (as many commentators including Lewis Lapham 1996 have argued) less easy to ridicule than previously. In fact, it may make sense to create such metaphors so as to provide alternatives to the bleak visions of the doomsayers. As Rheingold captured in his text discussed above, McLuhan served as inspiration for creators of the information age and new media culture. His work may again serve this function.

There are numerous examples of artists who have been inspired by McLuhan's work. David Rokeby's "Very nervous system" engenders awareness with its sensitive electromechanical form that follows the motions of the viewer who becomes the user who becomes the work itself. McLuhan's curious point that technology might be changing so rapidly that study of technological environments may yield insights previously possible from the study of art seems highly relevant to the current situation.

Morphing--the technique by which one shape gradually becomes another, a rendering task made seamless by computer assistance--can be seen as a signature of digital mediamorphosis. McLuhan glimpsed that technology may come to play the role of art. In all his works, but most pragmatically with the help of son, Eric, and Kathryn Hutcheon in *The City as Classroom*, he championed the amateur attitude in that each person must become artist and/or sleuth in order to cope with the turbulent changes under way. Training in tracking the patterns of technology may provide a companion route to training of perceptual awareness, which McLuhan argued offered a way to understand and thus to overcome the techno-cultural maelstrom.

New research has lent further importance to McLuhan's speculations that the brain plays a crucial role in the mediamorphic process. Lanham mentions Corballo's findings that in evolutionary terms the brain may have developed in response to early experience with the environment. Over the past ten years the "brain research revolution" has left little doubt that the brain is plastic and made, not simply found. The connection between media moulding and stages of brain development deserves further investigation. What is clear is that the speculation by McLuhan that the brain and its interconnections hold important evidence for the discovery of how the process of cognition and re-cognition works is of great importance. McLuhan pursued these matters in the last decade (the 1970s) and break throughs in the field of neuro-cultural research in the 1980s point to a more precise application of these ideas.

The moulding of generations by dominant media in the years of greatest brain plasticity presses McLuhan's master analogy from orality to literacy to mechanical printing to television to video games. The hypotheses on the moulding of sensibilities and literacies by the dominant media are tantalizing. The complexity of intermingled factors defies the resources of conventional experimenters: the role of formal classroom instruction and varying kinds of script--from phonetic alphabet to ceremonial script (Scribner and Cole 1981); the difficulty of extracting findings from the cultural and media mix which dictate varying historiographic patterns, techno-cultural collisions, and accommodations; the difficulty of separating the operations of core dynamics from other

sorts of dynamics at the personal, interpersonal, and intercultural levels. The advent of computer-based media offer useful points of comparison within North America, yet despite the insistence of McLuhan, sensory profiles are not available as baselines, and thus the evidence available is anecdotal, accidental, and eccentric or suspect (as with SAT scores). Furthermore, despite McLuhan's warnings, the jeremiad and lamentation for things lost (as by Postman) are more common than an approach that tries to take the new (computers) and old (TV) media on their own terms. Pessimism remains the most popular stance inside the academy.

Another area of McLuhan's line of thinking that has received scant attention is the linkage between technological change and violence in response to loss of or threats to identity. His view was that, under electronic conditions, a return to a form of "tribalism" seemed likely. Ironically, the body piercing so popular in the mid 1990s, although individualistic and thus very different from the signature marks of various tribes, raises this theme. Gangs throng together, again with a post-literate twist: graffiti tagging as their colourful urban mark. Nazi skinheads bring savage ethnic wars back home; the young celebrate in North American mosh pits; the wealthy retribalize behind electric fences in suburban ghettos. These are not answers, but rather clues to the sorts of patterns McLuhan believed that his insights brought into focus. The point is that McLuhan's insights lay the ground for a way of linking historic patterns with current developments, always searching for the core dynamics.

Now that the computer is becoming the invisible environment in which we live, it is possible to see television in a new light. Tichi says she offers a midpoint report on TV, thus providing a valuable admission that television is not static, and will not disappear overnight. The evolution of the technology of TV itself, as TV morphs into a hybrid with the personal computer (PC), again calls for McLuhan's theory of mediamorphosis as a valuable aid to perception.

Additional lines of questioning are neglected when McLuhan's work is neglected. Lull's ethnographic work questions the idea of audiences for media under electronic conditions in terms of the extension of the household. The onset of interactive media,

such as videogames, and of two-way media, such as the internet, adds another dimension and gives new currency to McLuhan's point (from Joyce) that producers may become consumers. This is why the ethnographic imagination (and "communications ecology," to use Nevitt's memorable phrase) is so needed in research. It is a question--as Geertz said--of tacking between the general and particular, not forgetting the specific observations, yet searching for the patterns. McLuhan's grand generalizations in his theory of mediamorphosis were attempts to specify in broad and unforgettable strokes the insights, not to fossilize them. His ground up approach (the abductive approach) fits well with the sort of grounded theory advocated by Lull and others.

Questioning the collective intelligence or sensus communis under electronic conditions may be possible by applying McLuhan's theory of mediamorphosis from the surveillance side (including public opinion polling, market and media research), to the expressive side, including popular culture as a global language. The issue of common cultural literacies prompts anxiety for many, including Postman. Putting these issues in historical context and finding the parallels with previous times--as, for example, Lanham does with the linkage (following McLuhan) to the great rhetorical tradition--could be of immense value in opposing the present-mindedness that plagues much of the research into communications media and its transformative impacts. Naturally this leads to another important topic which is currently receiving attention:--namely, the questioning of how language and the word itself are transformed under electronic conditions. Lanham, Logan, de Kerckhove, and Postman have probed this area; however McLuhan's mediamorphic theory could add greatly to a debate which he helped restart.

Once one grasps a notion of electronic conditions not as determinative, but rather, as creating the ground for understanding, it becomes possible to consider more precisely specific problems within this larger context. Thus Katsch questions the electronic transformation of law while Kurtzman and others question the electronic transformation of money. The chief question that has preoccupied many scholars has been the degree of discontinuity, in fact an ancient thematic dyad.

Applying McLuhan's concept that the medium is the metaphor has been done independently by Postman and Sherry Turkle in *The Second Self*. As de Kerckhove has also noted, the linkage between the material and imaginative picture of technology helps to shape the self. The medium is the metaphor for the self, in the sense that our experience of the self is expressed in words coined to fit the operations of a dominant machine. But this vocabulary differs depending on generations which use often archaic technological terms when they speak of their own functioning (and malfunctioning). McLuhan's further point that media have become second nature which seems environmental, like first nature, has also been developed by Levinson, who reasons that technology extends our material embodiment of our ideas and that we evolve as a species through interaction with these extensions. The linkage between the notion of an extended (and interiorized) self system and techno-cultural system could be enriched by attention to McLuhan's theory of mediamorphosis.

To sum up: McLuhan's theory of mediamorphosis provides an original account of how we shape our world with artefact extensions, and how we are transformed through our relationships with the environments we both create and encounter. To paraphrase Postman, McLuhan's techno-cultural hermeneutics vividly brought to light the background radiation of the invisible media big bang and thus his contribution in the largest sense is to raise collective consciousness and direct attention to the way media shape our understanding unconsciously, by operating as environments and systems of perception. Once recontextualized, his work provides understanding not only of media, but also of the role of media, technologies and all artefacts in shaping how humans come to understand and to experience as we do. The scope of McLuhan's insights exceeded their precision, however he succeeded in opening the imaginative horizon in a historically effective way. There is plenty of room to formulate more precisely these insightful theories.

From a historiographic perspective McLuhan's work (and that of Innis) prefigures an important alternative to conventional historical accounts which for the most part (as Eisenstein 1979 confirmed) ignore the role of media, technology, and communications,

or relegate these factors to a sideshow marginal to the main event of historically effective causes (Lipsitz 1988). Once recontextualized, McLuhan's theory of mediamorphosis offers an unexhausted source of insight into the dynamics of techno-cultural change, and remains a relevant point of departure for communications and media researchers. It is recommended that a productive approach for McLuhan's successors, regardless of discipline, is to take him on his own terms, within the context of his work as a whole. This is to agree with literacy scholar David Olson's (1981) observation that McLuhan (and Innis) pioneered fresh approaches to the dynamics of historical techno-cultural transformations by opening doors for later scholars, but now it is up to their successors to make these sweeping diagnoses more precise. This may be done once the work is restored to its context.McLuhan's legacy may lie in the very paradox he presents. Perhaps McLuhan's generative paradox, as Krippendorff suggested, itself provides a medium for the growth of knowledge and creative discovery.

With the addition of Chapter 4, the argument of the "Heat and the Light" is now complete and McLuhan's assertion of a theory of mediamorphosis, context, the forging of the negative academic consensus against his work and the ambivalent aftermath of this response have now been presented. The time has come to take up McLuhan's invitation to discovery.

Conclusion: Reseaming the Narrative on McLuhan's Paradox

The Chapters speak for themselves, and at length, so the Conclusion will be brief. To reseam the narrative on McLuhan, I propose to summarize the conclusions.

Chapter 1 took up the paradox of McLuhan's texts, and set forth grounds for interpretating McLuhan's core themata as a theory of communications as techno-cultural transformation or mediamorphosis, a term borrowed from Blaukopf (1989). In this way, an alternative interpretation was proposed to the received wisdom which had reduced McLuhan's theory to technological determinism, technological utopianism, or non-theory. Grounds for preferring this interpretation of McLuhan's work were located from within his textwork, read whole. McLuhan's core theme of "multiple transformations, which are the normal consequences of introducing new media into any society whatever" (*The Gutenberg Galaxy* 1962, 279), were not found to be a determinism: first, because McLuhan's project encouraged consciousness of the media environment; second, because, in its pragmatic dimension, his hermeneutics served as an incentive to innovate consciousness-raising tactics, such as figure/ground analysis and the tetrads, and to construct counter-environments, including his own texts. I argued further that McLuhan's theory could be understood as his grammar, while his rhetoric could be comprehended as his practice. Once read whole and in a manner sympathetic to what he said he was doing, McLuhan's work discloses a hermeneutics of techno-cultural transformation, meaning that he attempted throughout his career to understand understanding, not as a study of consciousness but as an account of how we come to experience as we do, meaning how we come to believe we are passive receivers living in natural environments, when in fact we are active creators of the reality we live. My thesis is that McLuhan's work points in the direction of an unexhausted art and science of interpreting the impacts of media and technologies on literacies, sensibilities, and culture. How we make collective sense of the world is deeply implicated in the ways we shape our understanding by extending ourselves through our media and technologies into environments we then inhabit and daily remake. McLuhan's contribution was in part to expand this discussion beyond the limits of print-

oriented logic, by pointing out that media forms impose assumptions and invisible ground rules, and by recommending that experience with dominant media environments be factored into all historical and philosophical inquiries within the human sciences, not as side issues, but as aspects central to any adequate account. McLuhan did not counsel submission to these forces, nor was he an unmitigated utopian. Instead, he recommended awareness and autonomy as alternatives to sleep and slavery. This awareness included the ability to recognize, without premature moralizing, the creative possibilities of new media forms, including popular culture.

Chapter 2 engaged the issue of McLuhan's traditions, and posed an answer to the question of the context within which McLuhan's work now seems most intelligible. This tradition was located in the Toronto School of Communications and the conjunction of Innis, McLuhan, and, to a lesser degree, Havelock at the University of Toronto in the late 1940s and early 1950s. The tradition to emerge out of the Toronto School was communications history, which takes as its subject the transformative impacts of technologies, notably communications media, upon culture, and raises micro, meso and macro historical questions about changing forms of social, political, economic, aesthetic, and sensory organization by inquiring into a broad range of phenomena at the intersection of culture and technology. Major research areas have included the orality and literacy thesis, the impact of the printing press and the phonetic alphabet, and the effects of electronic media since the telegraph. The tradition argues that changing relationships with dominant media and technologies result in revolutionary transformations in the conditions or ground for cultural life. McLuhan's role in the emergent tradition of communications history was found to be that of a hub in that his textwork and networks linked a diverse group of sources and associates and juxtaposed their insights into an original recombination that he expressed in such a way that it captured the world's attention. In offering recommendations for further research, the discussion returns to the relevance of McLuhan's contribution for contemporary problems. His profound insights into the power and dynamics of media forms did not blind him to the power of societies and individuals to act on their knowledge, to shape environments, and devise counter environments.

Figure/ground analysis, the tetrads, his aphorisms, his texts and metaphors, all were devised as counter-environments. As he put this: "Nothing is inevitable so long as we are prepared to pay attention." Harold Innis, was deeply preoccupied with questions of power and with what he called "monopolies of knowledge." As founding figures within the emergent tradition of communications history, the work of Innis and McLuhan is indelibly linked. It is from the conjunction of the two that I believe the most promising extension is possible of McLuhan's theories of communications as techno-cultural transformation. McLuhan was preoccupied with the power of the media form to impose assumptions--one meaning of his enduring aphorism, "the medium is the message." Innis was concerned with the power of groups and the time-or space-oriented properties of media that permitted the construction of monopolies of knowledge. It was suggested that the strength of the tradition lies in reunification of the contributions of Innis and McLuhan, and that one solid reason for accepting such a proposal is to restore a more robust analysis of power to the communications history tradition.

Chapter 3 took up the paradox of response to McLuhan. The enduring term, "McLuhanesque," refers to the experimental style of his texts and wordplay by which he helped devise a language and imaginative vocabulary-a new media rhetoric and grammar so that others might grasp this unfamiliar environment. Above all, as educator and rhetor, he sought to awaken the sleeping public and the somnolent academy. The rhetoric of intellectual controversy was deeply ambivalent as McLuhan threatened the preconceptions of members of the public and the academy alike. McLuhan's popular celebrity was deeply resented, even by some of his closest colleagues. It was argued that a negative academic consensus was forged on McLuhan's work and was complete by 1975. Following this point, it was argued that McLuhan's work became irretrievably fragmented from his texts, from its context in communications history, and that for many, reading his critics' distortions replaced the difficult task of reading him first hand. Parallels with a social scientist and scientist were introduced for comparative purpose to demonstrate that the phenomenon of rejection of the public, or celebrity intellectual, had wider application than this case study, and raised interesting questions in a media-saturated age.

In Chapter 4, the paradox of McLuhan's fragmented but enduring legacy was taken up. His ingenious invention of aphorisms, metaphors, analogies, and puns was a cultural event which coincided with glimmering recognition of the possibility that a major shift was occurring from an industrial to an information age. Scholarly and popular discussions continue to resonate with echoes and variations on McLuhan's signature phrases, "the medium is the message" and "the global village." It was when he commented on the collision between Gutenberg's print galaxy and the electric environment that his ideas provoked the greatest controversy, and in particular when he challenged the basis upon which he concluded that Western philosophy and science rest: "[W]e have confused reason with literacy, and rationalism with a single technology" (*Understanding Media*, 15). The work of a diverse group of researchers was probed, and the conclusion reached that McLuhan's insights had proven fertile; yet due to the explosive rhetoric of the intellectual controversy and the forging of a negative academic consensus by 1975, his theory remained decontextualized from an adequate critical ground. As a result, important research work has been neglected within the interdiscipline of communications.

At the beginning of this lengthy investigation, I argued that, as digital computer media grow increasingly pervasive during the 1990s, McLuhan's insights are once again relevant. A revival of interest in McLuhan is currently apparent. McLuhan warned in the 1950s that monumental changes comparable to the consequences of the earlier revolutions of writing and print were underway. This seems more true than ever. In reappraisal, this argument succeeds if doubt is cast on some of the more pernicious counter-themata against McLuhan's work, and if the suggestion is accepted that McLuhan's works deserve a rereading and his ideas another hearing. It is now possible to observe, in retrospect, how McLuhan as a paradoxical intellectual figure serves as a "morphogenetic" or creative paradox (Krippendorff 1984, 46) and a "stimulus for human cognitive growth." The deeper question at stake in the McLuhan controversy concerns the relevance of the humanities and the role of the humanist intellectual within the interdiscipline of communications and, more broadly, within the human sciences. This question is inextricably bound up with the larger one of the tension between the academy and the

media over authority and cultural power. Although I have been able to do little more than call attention to the need for further reflection on these matters, the McLuhan controversy seems to offer insights into the fate of a figure caught up in the struggle between the two. On the basis of the McLuhan controversy, I conclude that theorists who bring visionary scope to their subject and who open up areas of research deserve better than the scorn they too often receive from their colleagues. There are many styles of theorizing, and more ways to arrive at productive insight than the narrow myopia prized among specialists. Furthermore, the humanist and generalist intellectual, particularly one who can communicate to the public about media and via new media, is needed more than ever to make sense out of the environment that surrounds us and which we co-create. The morality tale of McLuhan as rogue scholar, his demonization as a technological determinist and the spectacle of his virtual excommunication from the academy frustrate such developments, and undoubtedly prevent much fruitful research. It is a healthy sign for the interdiscipline of communications and the human sciences that some scholars are taking a second look at the contribution of Marshall McLuhan to understanding media and much else.

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Endnotes

Notes for Introduction

1. Richard Dawkins' idea of memes, which is modeled after the biological concept of genes, and meaning ideas with broad effects and capable of changing history, also has resonance.

Notes for Chapter 1

1. McLuhan's papers are held at the National Archives of Canada, Marshall McLuhan fonds. I would like to thank David Enns, then archivist responsible for the McLuhan fonds in the manuscript division of the National Archives, for his gracious assistance, and in particular for providing an early electronic finding guide. I would also like to thank again Dr. William Kuhns for sharing materials that he had assembled for an earlier project on McLuhan.

2.This manner of ordering McLuhan's intellectual career differs from others that have been proposed, for reasons that should be explained. Journalist Philip Marchand's (1989) biography is properly more detailed regarding the early phase. What he calls "[t]he discovery of communications 1951-1958" I do not regard as such, as it is abundantly clear (as Marchand appears to acknowledge [113-14]) that McLuhan had long since "discovered" this subject. What happened is that McLuhan brought his themes into sharper focus after his contact with Innis, while perhaps paradoxically grasping that the techniques of art history that interested him had an even broader range of application than he had previously recognized. It is absurd to say, as Marchand repeats from many others, that "Innis did, in effect, a great deal of McLuhan's research for him" (ibid., 112). One may as well say the same for Innis' sources, or those of any generalist who relies upon the labours of others for primary research.

Marchand groups the years, 1958 to 1964, together, whereas I prefer to distinguish the period up to the point at which McLuhan consolidated his insights in the report, *Project in Understanding New Media*, at the end of the decade. This is the end, in my view, of what Holton calls the nascent phase, and what I have called the Explorations Period. From here, beginning in 1960 the letters confirm that McLuhan is sure of what he wants to say, and intent on finding a way to say it. There is for him a tremendous burst of energy in the early 1960s as he readies his materials for publication. I place this entire decade together as McLuhan continues to experiment with ways to express his ideas. He goes from unknown to celebrity to former celebrity (very different from unknown position at which one starts this process). By 1970 he begins to move into what I have called the last decade phase. There are several intellectual discoveries made beginning in 1968, such as the significance of figure/ground analysis, the resonant interval, and the process of metamorphosis, which permit McLuhan to further explore the implications of the electronic period (e.g., "discarnate man") and deepen earlier insights so as to cast a different shape on his previous work. I characterise this "deepening" as a shift from organic to metamorphic formalism, and regard it as a move in McLuhan's thinking away from history (diachrony) and towards greater concern with theory, formal

principles, and "laws", eventuating in the (synchronic) new science and laws of media. It is in 1970 that I believe a shift emerges in his thinking (although Marchand's discussion of the period 1968-1972 has a certain coherence). There is a second reason for treating 1970 as a rough divide: beginning at this time McLuhan starts to become aware that he has lost respect among North American and British intellectuals, as his books *The Medium is the Massage*, *War and Peace in the Global Village*, *Through the Vanishing Point*, and *Culture is Our Business* make little impact. He clings to the idea that he is better received in "Latin countries" (e.g. *Letters* 1987, 504-05), and I believe he decides to go on the offensive in a manner different from the Catalyst Phase, a conclusion also reached by Marchand. In the fall of 1969 McLuhan engages the public relations agent Matie Molinaro. His protests about misrepresentation become more frequent and increasingly testy. By the end of the decade, he is less resilient as an intellectual, is humoured by close colleagues such as Nevitt, and shows the effects of age and his medical problems (On Campus with McLuhan 1979 "Coachhouse"). However, in sharp contrast to Marchand who makes McLuhan's medical problems the key subtext of the last decade, and I believe as a result trivialises the work of this decade, it seems more accurate to take up the discoveries and developments achieved by McLuhan, for they shed important light on his intellectual career. What interests this account is the substantive movement in his theory of cultural transformation in the last decade, and the recasting of his discoveries and core themes. Where many readers find repetition, I find a deepening and shift in emphasis (as did Gronbeck 1981). This approach is developed in the body of the text, with due acknowledgment of Marchand's readable biography where appropriate.

Another serious attempt to periodicise McLuhan's career along biographical lines is William Toye's illuminating narrative (with McLuhan and Molinaro) that weaves together the letters. There the division is threefold: 1911-1936; 1936-1945; and 1946-1979. This rudimentary division separates early life and education, first work experience at the Universities of Wisconsin and St. Louis, and lifelong affiliation with St. Michael's College, University of Toronto (1946-1980). Toye et al significantly select letters that focus on McLuhan's intellectual development, and include statements, clarifications, and elaborations of his ideas (1987, x).

Bruce Gronbeck (1981) is one of the few commentators to recognize a major shift in what he calls McLuhan's "awareness method" from the 1960s to 1970s, arguing that his work shifts away from a model of the forms of media as causal influences, to a more holistic approach, in which the central metaphors are figure/ground and the brain hemispheres. I think Gronbeck is correct that there is a shift from 1960s to 1970s, and that these are key themes; however our interpretations differ, as indicated in my argument in the text. James Striegel (1978) also finds changes in McLuhan's work, and perceptively treats McLuhan's later analogical methods.

3. The metaphorical use of "operating systems" to describe McLuhan's notion of the

invisible programming of the sensory life of historical cultures is adapted from Lanham (1993, 227).

4. Marrou (1938) and others confirm this description.

5. Roland Barthes later put this technique to good effect in *Mythologies*.

6. McLuhan's pioneering work in popular culture is often unrecognized. For example. Diana Crane (1992) hails the contribution of McLuhan's work in *Understanding Media*; however, she appears unaware of *The Mechanical Bride*.

7. Marchand would seem quite incorrect in assigning credit for the "basic notion underlying" *The Gutenberg Galaxy* to Ong (1989, 59; 155).

8. In a masterful response, Pound cryptically advises McLuhan to stop accumulating debts, and start gaining credits (*Letters*, 232).

9. More will be said about affiliations within *Explorations* in Chapter 2.

10. Thanks to Donald Theall for supplying these notes and for a lengthy interview on McLuhan in the 1950's.

11. This is Chaytor's formulation and should be flagged, as translation between these sensory modes emerges as crucial to McLuhan's core dynamic.

12. I am grateful to Donald Theall for initially alerting me to the significance of this point. Chapter 2 offers a fuller explication.

13. Giedion's work continues to exert a profound impact, as do Gombrich, Ivins, Mumford, and the Catholic historian philosophers Gilson and Maritain. McLuhan's former colleague from St. Louis, the philosopher turned management consultant, Bernard Muller-Thym, is also a source of inspiration. However, none of these writers singles out communications media as do Innis and McLuhan, as agencies of cultural transformation. In Chapter 2 this point is developed.

14. Theall (1971) saw this clearly. More recently, Patterson (1990) presents a similar case, which will be considered in Chapter 2.

15. McLuhan in Commonweal 1954; in White and Rosenberg 1957; in *Languages of the Mass Media* 1965.

16. Wyndham Lewis' trilogy, *The Human Age*, is credited by McLuhan as a major inspiration for his media study. Although he rejects Lewis' moralism, and most of his particular emphases, he is attentive to these fictional accounts of the structural impacts of media, which are personified as characters in Lewis' trilogy (e.g. *Culture is Our Business* 1970, 334.)

17. Other major sources in addition to art historians, Heinrich Wolfflin and Ernst Gombrich, include Innis and Giedion on cultural history, Dantzig (on number), E.T. Hall (on speech and invisible ground rules for culture), Innis (on writing), Eliade (on preliterate man), Chaytor (on manuscript to typographic printing), Innis, McLuhan, Carpenter, and Ong (on printing press), Ivins (on prints), Ivins and Gilson (on photography), Arthur C. Clarke, Maurice Gorham, and Dallas Smythe (for the telegraph), Clarke (on the telephone), Gelatt and Blivins (on the phonograph), Arnheim (on film), Paulu, Gorham and McWhinnie (on radio), Gorham (on television) and Barnouw (on broadcasting). James Joyce is hailed as master of media study: "The Wake is the greatest of all manuals for understanding media."

18. In his *ABC of Reading*, Ezra Pound used ideogram to describe the compressed properties of Chinese character symbols, and the term - which recurs in McLuhan's evolving theory - means roughly a character symbolizing the idea of a thing without expressing the sequence of sounds in its name, ie. not a phonetic character.

19. McLuhan's report on the media experiment is drawn from reports by DC Williams, Carpenter, and his own write up of the later experiment, although these men are not mentioned. The date of the later experiment is taken from Carpenter's article.

20. The *Report on Project in Understanding New Media* contains a script for a television program recorded under the title Gutenberg Galaxy, completed in 1960. McLuhan as educator and rhetor is experimenting with alternative forms to communicate his insights.

21. McLuhan credits Innis with this insight, yet it is apparent from his work (eg. *Empire and Communication*, 5) that Innis' emphasis was on writing per se. Like McLuhan, David Riesman in Explorations had made a trenchant case for this significance of the alphabet.

22. Lewis Carroll is mathematician and author of Alice in Wonderland. Adolf von Hildebrand wrote *The Problem of Form in Painting and Sculpture* (1893; 1932) and *The Problem of the Form in the Figurative Arts* (1907; 1945.)

23. The book is divided into three sections: prologue, the Gutenberg Galaxy which is the

body of the text, and the Galaxy reconfigured, an epilogue that serves as prolegomenon for the sequel, *Understanding Media*. Typographically, the body of the book features sections that lead with McLuhan's short summations, presented headline style and set apart in bold typeface contained within two horizontal single line borders.

24. On the alphabet as crucial he cites inter alia Diringer, Innis, Kenyon, and on oral cultures, Parry, Lord, Carpenter, and anthropological psychiatrist J.C. Carothers.

25. Particularly important on the Greek shift are passages from Doods, Gombrich, Seltman, J White, Ivins, Van Groningen.

26. Of the many sources, chief are Chaytor, Buhler, Curtius, Febvre and Martin, Hajnal, Hadas, and Ong.

27. In 1975 Hall wrote that McLuhan had borrowed his term 'extensions' to express the innering and outering process, a charge McLuhan denied. (*Letters* 1987, 515.) Ironically, Buckminister Fuller also claimed McLuhan had borrowed the term from him. Letters 1964, 308.)

28. I am indebted to Don Theall for helping me grasp this point.

29. The influence of Innis is apparent in this choice of historiographic method, and McLuhan calls *The Gutenberg Galaxy* a footnote to Innis' *Bias of Communication*.

30. McLuhan is citing deBroglie (14).

31. This insight eventually surfaces in Walter Ong's (1982) formulation of "secondary orality" as a way of speaking of the return of oral modes in literate societies interpenetrated by electronic media.

32. Typographically orthodox, Part 1 presents an introduction and seven chapters containing broad principles that form the framework for McLuhan's developing theory. The second section treats twenty-six case studies of particular media.

33. Another characteristic strategy of production is McLuhan's reinterpretation of myths and scientific findings. For example, he reinterprets the Hawthorne effect, whereby no matter what techniques were tried, worker productivity in a factory went up, as corroboration for the importance of attending to environments, not simply content; likewise, he reinterprets Pavlov's famous conditioning of the dog to salivate when the bell rang as an example of reinventing the lab landscape or environment based on a desired result. After all, he observes, ringing a bell on the street will not "cause" nearby

dogs to start salivating. This idea is similar to Latour's approach to science as the extension of labs and networks.

34 He cites inter alia von Bekesy, Bernard, Gombrich, and (on stress as an analogon) Jonas and Selye.

35 An approach McLuhan appears to have approved of, as indicated by his inclusion of Steiner's book on his Monday night seminar reading list, and approving reference to the work, and to hermeneutics generally in *Laws of Media*, (1988), published of course posthumously.

36 The introductory essay, "Sensory Modes" in *Through the Vanishing Point* displays McLuhan's increasing interest in the problem of form, the title of Hildebrand's (1893) exploration of the subject. The case is made, citing Hall and Piaget, that spatial experience is not "natural" so much as learned in childhood, and that such experience varies across cultures, and throughout history. McLuhan stresses that it is central to the understanding of space in poetry and painting that its multiple dimensions (tactile, visual, aural) be understood, as the relativity of cultural experience of time is more easily recognized. (9) The book aims to show why the medieval and primitive worlds share spatial experience with modern electronic man (8), and how spatial preference and sensory dominance change from cave art to colour TV (*Letters*, 361). The concluding essay, "The Emperor's new clothes" makes the point that analogy is key to all metaphysical insight, and perhaps the condition of consciousness itself (240). "This analogical awareness is constituted by a perpetual play of ratios among ratios...This lively awareness of the most exquisite delicacy depends upon there being no connection whatever between the components." (240).

37 Otto Lowenstein is prominent.

38 "But the pain may refer to hidden factors, the invisible environments created by technological innovations. Technology disturbs the self image of a culture, both private and corporate, so that loss of identity may bring about violent reaction and war." (126) War is a violent quest for the recovery of lost identity, an attempt to fight while looking in the rear view mirror for what is lost.

39 The lone exception is a $26,000 grant in 1979, which allows him to pay son Eric to assist in the Laws of Media project.

40. Pedro Lain Entralgo's (1970) *The Therapy of the Word In Greek Antiquity.* In his earlier *Mind and Body, Psychosomatic Pathology: A short history of the evolution of medical thought* (1955) he states "until medicine and surgery in all their aspects come to form part of a true anthropology in the Thomistic sense, a Science of Man in health and disease, it is best as a first step to try to clarify our concepts of aetiology." (1955, ix) This

history of medicine is written from the psychosomatic point of view: "There can be no 'idea' without 'experience', nor 'experience' without an 'idea', even though there be historical and individual situations in which one prevails greatly over the other. The result is that the history of psychosomatic pathology is, to a certain extent, the history of medicine." (1955, xvii) It seems no wonder that this book, with its Thomistic anthropological sensibility would appeal more to McLuhan than the work of Michel Foucault, whom he does not mention.

41. *From Cliché to Archetype*'s table of contents (which appears on pages 192-3) shows that McLuhan is experimenting further with his discontinuous mosaic form of probing,with categories from paradox to theatre now broken into fragments with no immediate points of contact with the master historical patterns previously announced in his works. Yet the historical pattern pervades *From Cliché to Archetype*, if discontinuously, in keeping with his conviction that linear narrative is a relic of literate mechanical sensibility, and not illuminating. This is evident in the chapter "Centennial Metaphor."

42. A kaleidoscope of brief sections separated by bold face headlines, *Take Today* ranges over McLuhan's past and present work, themes, and sources. Dense in its compression, reflecting Nevitt's style (as evident later in his *The Communication Ecology* 1982), McLuhan suggests the book is best read by sampling (Marchand, 235).

43. He first takes serious note of the importance of the concept in 1968, when he describes tactile space as "the world of the interface and the interval" and links the insight to Heisenberg and Pauling. (*Letters* 1987, 358) However, his 1967 interview with Stearn indicates the literary roots of the concept. eg. "...Kafka takes the plausible, reasonable, literary modes of discourse and narrative and immediately juxtaposes them with something else--creating metamorphosis, change of structure, change of perception. By putting the three-dimensional world against the metamorphic world of changed structure he gets the same degree of nightmare and terror that Bosch got by putting his two spaces together." (1967, 282). We saw above (*Letters* 1987, 287) that the idea of interval appears in his letters in the catalyst phase.

44. An early idea updated, McLuhan first mentioned wanting to write a Baedeker, a guide to culture, in 1948.(*Letters*, 205).

45. The relationship to the tradition known formally as "structuralism" is outside the scope of this document.

46. McLuhan mentions the significance he finds for his own work of research into the two hemispheres of the brain in a 1976 letter to Ruth Nanda Anshen. (*Letters*, 521) An identical letter included in the collection and dated 1968 -- but in the square brackets employed by the authors to indicate uncertainty -- is likely misdated. (*Letters* 1987,

359-60.) Marchand, who catalogued some of the papers, indicates that McLuhan had been sent an article as early as 1967 on research into the two hemispheres of the brain, and the idea that left and right sides of the brain controlled different aptitudes and functions (Marchand 1989, 245). A letter to his friend the author Sheila Watson, who served as his assistant in 1968, discusses why this 1967 letter "did not arouse any special interest in me [at the time]." *Letters* 1987, 522).His catalyst phase work, beginning with *The Gutenberg Galaxy* and *Understanding Media*, shows that as soon as he began to shift from literary to media study, he drew upon scientific research on the physiological and biological ground of the senses, such as von Bekesy, and Lowenstein. This explained, as mentioned above, the attraction of Gombrich's Art and Illusion, which masterfully linked art history and science of perception. On the evidence, I think he recognized the significance of the split brain hypothesis for his own work, finding in it corroboration and illumination of his themes, in 1976, after Krugman's (1970) experiments offered unexpected corroboration for his insights, and more directly after receiving an article by Robert Trotter from collaborator Robert Logan (Marchand 1989, 298, n.24; *Letters* 1976, 521.)

47. He cites A.R. Luria 1970, and Robert Trotter's article "The Other Hemisphere" 1976, which drew on study of the Inuit of Northern Canada--which McLuhan was previously acquainted with through the work of Ted Carpenter.

48. This formulation of the computer came from collaboration with New York publisher William Jovanovitch.

49. In a personal conversation in 1994, Eric maintains that the work is a collaboration comparable to those completed during McLuhan's lifetime.

50. The book is divided into four parts, explorations in visual and acoustic space, the global effects of video-related technologies, an epilogue on Canada as a counter-environment to the U.S., with the border as a resonating interval, and a glossary of tetrads. The article "Ma Bell Minus the Nantucket Gam: Or the Impact of High-Speeds Data Transmission" (1981) co-authored by McLuhan and Powers, also conforms to the direction the collaboration took.

51. *Take Today* contains applications to telecommunications, a subject on which Nevitt was knowledgable. (eg. *Take Today*, 248-255)

52. This quotation can be found in I.A. Richards' *Practical Criticism*.

53. From an orthodox Roman Catholic perspective, Father Ong later commented unfavourably on the value of satire, and McLuhan's self-description of his work. (de Kerckhove tapes 1983)

54. Marchand (1989) offers a perceptive example. Newton wanted his contemporaries to recognize God's design, as his private writings make clear, and thus dedicated his science to this objective.

55. Von Beckesy's experiments on hearing and sensory inhibition greatly influenced McLuhan. From this scientific source, McLuhan also drew the term "mosaic", which he used to describe Innis'" method and his own in *The Gutenberg Galaxy.*

56. McLuhan's letters to former Prime Minister Trudeau offer his commentary on Trudeau's mask, and how he might adjust it to cope with his audiences. (eg. *Letters* 1987, 469-79; 1974, 499.)

57. "Cultural hermeneutics," is a term used by Geertz (1983, 151)

59. Steiner's book was on McLuhan's Centre for Culture and Technology reading list in the Last Decade.

1. The task reported here is only partly complete because much of the correspondence available represents one side, the active and constant writer, McLuhan. It also de-emphasizes some of his orally based associations, with his collaborative co-authors for example, and during the Explorations Phase with the remarkable Ted Carpenter. When the papers of figures including Ong, Carpenter, Havelock and others are available, it may be possible to reassess the full picture. However, the future historian will require great wariness for reasons traced here: McLuhan's celebrity engendered disdain in his academic colleagues.

2. The tradition must be distinquished from "communications history" as discussed by Stevens and Garcia (1980) and Startt and Sloan (1989), which is largely a research area within American history, with a primary focus on the history of journalism. By contrast, the Canadian tradition takes a macro-historical approach that aims to encompass world history, and to develop theoretical insights into the dynamics of cultural transformation. Such a sweeping approach remains preliminary, and while it deserves and receives criticism, is less obviously flawed by the often unconscious ethnocentrism of the American approach, which suffers from preoccupation with journalism and issues raised within an American judicial and constitutional system. A case in point is Ithiel de Sola Pool's *Technologies of Freedom* (1983) which nods in the direction of world history by asserting: "What is true for the United States is true, *mutatis mutandis*, for all free nations" (8).

3. It is possible to speculate that the so-called end of the direct media effects paradigm announced by Berelson in 1959 created a vacuum within American communications studies, so that for a moment the field was open to new ideas. Such an interpretive hypothesis would find support in comparative studies of the growth of communications and media scholarship outside the U.S., by demonstrating the receptiveness in the early 1960s to alternatives to American quantitative empirical social science. The emergence of "cultural studies" at Birmingham in the mid 1960s provides one example (Carey 1982; Brantlinger 1990). For another, Balle and de Baillon (1982) in "Mass Media Research in France: An Emerging Discipline" point out: "The return of theoretical analysis and the development of new theoretical approaches during the early 1960s marked a decisive turning point for media research. This was the decade of McLuhan's theories arguing that the same message could have very different effects, depending on the media used to transmit it. His work had a tremendous impact on media research in general and on French research in particular" (1983, 150). The work of McLuhan, and through him of Innis, would then be contextualized within a global shift in approaches, as a pioneering Canadian contribution. This broader history is outside the purview of The Heat and the Light.

4. Theall's point is well taken, however it should be objected that this 'hermeneutic' response is not inevitable, as the example of the "marginal" society of Francophone

Quebec may indicate, whereby enduring efforts to control the means of communication have long marked the struggle for survival of a linguistic minority within English speaking North America, and influenced Quebec communications scholarship in decidedly non-hermeneutic directions (e.g. Dagenais 1986). As applied to English Canada, home base for McLuhan and Innis, Theall's observation may account for the sweeping and (for most critics) unconvincing nature of the rare suggestions offered by either man as to what to do about the situation diagnosed. Innis' plea for time remains just that, a plea, while McLuhan's recommendation that media be turned up or down like a thermostat, however scary the satire, is of theoretical interest, but little practical use except--as he elsewhere notes--for that individual who may wish to control media as one might a diet, balancing print and electronic media in a personal media ecology, without deluding oneself that society has changed as a result. McLuhan refused to view the situation of popular U.S. media dominance with automatic alarm, arguing that the user was the content, and that a Canadian viewer (as with other national audiences) brought his/her own cultural experience to all encounters with 'foreign' media. Theall saw clearly the hermeneutic character of the speculations of Innis and McLuhan, however McLuhan's view is more complex than Theall's comment implies. As McLuhan tells Stearn: "Marx's statement should have been: 'If you want to change the world, you have to understand it.'" (1967, 271).

5 Leavis had a major influence on McLuhan, however it is useful to note that McLuhan later expressed ambivalence regarding the discipline of English, and turned his back on the idea that the critic's first duty was to pass individual judgements on the works under his or her scrutiny, where this implied rejecting popular media forms and imposing an opinion in place of diagnosis of the world as it presents itself. Influenced by the Symbolists and Joyce, McLuhan took a more democratic approach, as evident in "Joyce, Mallarmé, and the Press" where he conjoins Innis' themes with his own: "The author of *Ulysses* was the only person to grasp the full artistic implications of this radically democratic aesthetic elaborated by the fabulous artificer, the modern Daedalus, Stephane Mallarmé....And in each of these essays [written by Mallarmé in his last years] he is probing the aesthetic consequences and possibilities of the popular arts of industrial man" (1954, 48). Leavis and Thompson expanded the range of proper application of this judgement to popular culture, in *Culture and Environment*, however their nostalgia for folk culture, and disdain for commercial culture was not shared by the later McLuhan. On Leavis see Walsh (1980).

6 McLuhan's mother discovered that Lewis, whose work as novelist and painter McLuhan had admired since Cambridge, was living in Windsor. He paid a visit, and the two corresponded intermittently until Lewis' death. On Lewis see Materer (1976)

7 McLuhan corresponded with Pound, another modernist whose writings he respected, and once visited, during the period when Pound was incarcerated in a Washington mental

hospital for his wartime actions in Italy. On Pound see Tytell (1976)

8 In his days at Cambridge the two options for passionate commitment were communism or Catholicism. In North America, choosing Roman Catholicism represented a barrier to worldly ambitions, and contradicted his family hopes. This gave rise to a low grade paranoia (Jeffrey 1989), about which much has been made by the critics, but which was not without basis in fact. It might be observed that the interviews conducted by Marchand offer copious examples of the sort of disdain and misunderstanding that McLuhan complains about. Fulford writes: "From the early 1950s to the mid-1960s it was fashionable among journalists and broadcasters, as it was among academics, to sneer at McLuhan." (1988, 162) McLuhan's letters of the late 1940s and early 1950s indicate a preoccupation with the modernist interest in the occult, which he regards as a sort of unexposed conspiracy. His conversion was based in part on reading history against the Protestant grain, disclosing another story from the official version.

9. A complete account of the contribution of Harold Innis will not be offered. This zone draws on a reading of Innis' works, with particular attention to the post-1940 lectures and writings on communications, including *Empire and Communications* (1950); the essays contained in *The Bias of Communication* (1951), both later reissued with introductions by McLuhan (1964), (1972); *Changing Concepts of Time* (1952), containing his Stamp lecture, "The Press, A Neglected Factor in the Economic History of the Twentieth Century" and essay "The Strategy of Culture"; an earlier essay "On the economic significance of culture" delivered as the presidential address to the Economic History Association; a paper delivered to a meeting chaired by Annales historian Lucien Febvre in Paris in 1951, "The Concept of Monopoly and Civilization" (UTA B-72-0003/012/47), later published in the journal on which McLuhan was associate editor, Explorations; a 1947 address to the United Church of Canada (in Essays in Canadian Economic History 1979), and the posthumous The Idea File of Harold Adams Innis (1980), edited by William Christian. Innis' papers, held at the University of Toronto Archives, have been consulted, along with "The History of Communications", the name given the unfinished typescript which is now in the archives after a lengthy attempt to see it published, when it remained in private hands. The Easterbrook papers (B79-0039), and the records and correspondence files of the Political Economy department, also at the University of Toronto Archives, shed further light on Innis' later work and affiliations. The staff of the UTA, particularly Harold Averill, are gratefully thanked.

10. Approach to tradition is influenced by T.S. Eliot's discussion of "Tradition and the Individual Talent" (o.p. 1919).Every nation, every race, has not only its own creative, but its own critical turn of mind..Tradition...cannot be inherited, and if you want it you must obtain it by great labour. It involves, in the first place the historical sense [which] involves a perception, not only of the pastness of the past, but of its presence; the historical sense

compels a man to write not merely with his own generation in his bones, but with a feeling that the whole of the literature of Europe from Homer and within it the whole of the literature of his own country has a simultaneous existence and composes a simultaneous order...The existing order is complete before the new work arrives; for order to persist after the supervention of novelty, the *whole* existing order must be, if ever so slightly, altered; and so the relations, proportions, values of each work of art toward the whole are readjusted; and this is conformity between the old and the new. (1953, 22-24)

Applied to scholarship, no work is ever completely original, yet a significant contribution differs in that it makes a difference to the entire tradition, expands the historical and thematic imagination, if ever so slightly. In the 1990s, Eliot's certainty regarding one tradition, or canon, and monumental European heritage has been superseded by critical awareness of multiple traditions. In this latter day spirit, Eliot's discussion remains helpful for purposes of the task of contextualization in this Chapter, because both Innis and McLuhan wrote with a historical sense that compelled each "to write not merely with his own generation in his bones, but with a feeling that the whole of the literature of Europe from Homer" resonated, and to work out of a creative and critical turn of mind that echoed the environment of his own comparatively new country. The result was not canonical literature, as Eliot intended, but a fresh way of understanding the process whereby communications--the topic that the two shared--and culture come into existence.

11. This argument is supported by Marchand (1989, 113-114); (Patterson 1990, 34-40)

12. (UTA B79-0039/014, "Remarks" circa 1954-1955, n.d.)

13 I am indebted to Ian Parker for alerting me to the significance of the minutes from the "values" discussion group. Other members, according to the list of those present, included sociologist S.D. Clark, and historian Donald Creighton. (UTA B72-0003/030/05.)

14 (UTA B72-0003/030)

15. McLuhan had long wanted to start a publication. (*Letters* [1946] 182; [1977] 536.)

16 The phrase regarding Innis was a handwritten addition. Molinaro, McLuhan and Toye (1987, 467).

17. Innis' educational background is B.A. McMaster 1916; M.A. (economics) McMaster 1918, Ph.D. (economics) Chicago 1922. McLuhan B.A. (English literature) Manitoba 1933, M.A. (English literature) 1934, B.A. (English literature) Cambridge 1936, M.A. (titular) Cambridge 1940, Ph.D. Cambridge (English literature) 1943.

18 Innis' academic positions are: Political Economy, University of Toronto 1920-1952, full professor 1936, head of Political Economy department 1937-1952; dean of the School of Graduate Studies 1947-52.

19 Sally Zerker (unpublished) has notes from the 1951 course (1988, 27). Tom Easterbrook took over the course the year of Innis' death. (UTA: Easterbrook Papers B79-0039/014-15.)

20 The first three parts were published as *Empire and Communications* (1950). The manuscript is now in the University of Toronto Archives (B93-0043) and an undated description of at least part of the lengthy and ultimately unsuccessful attempt (lasting from 1952 until 1992) to publish this dense draft can be found there. (B93-0043/001)

21 Several telling instances of McLuhan's faith in his insights, even in the face of contradictory evidence, can be found in Marchand (1989). Marchand also reports that specialists were impressed at McLuhan's knack of intuiting accurate and insightful conclusions, despite his often shaky grasp of the "facts." McLuhan believed this ability resulted from following the dynamics of form, not content, a principle he later phrased as studying figure and ground, and not figure alone. He credited Innis with a similar intuitive ability, and grasp of the dynamics of form. (*Laws of Media* 1988, 105)

22. This section draws on a paper "Innis hits the road: The relevance of the concept 'monopolies of knowledge' for debates over the information highway" delivered to the Innis centenary conference at Simon Fraser University, November 11, 1994.

23 For clarity, dialectical does not mean logical, in the sense McLuhan would intend from his studies of the trivium, as the third road, along with rhetoric and grammar, but rather means the existence or action of opposing social forces. I agree with Havelock that all attempts to read Innis as a Marxist must fail. "The framework of Innis' dialectic is not furnished by conflict between classes with conflicting interests; the ownership he is interested in, in so far as he is interested in ownership, is that exercised over the means of communication, not production; his sceptical temper would also have rejected the Marxist utopia of a classless society as naive and philosophically impossible since it presumes the end of the historical process." (1982, 39). Innis seemed to assume that monopolies of knowledge are inevitable, but that a balance or equilibrium favourable to creative thought could be achieved, as it had been in classical Greece. These conditions were favourable for the 'forethinker'--a term Innis took from Havelock's discussion of Prometheus, in *The Crucifixion of Intellectual Man* (1950)--or historically conscious intellect, as opposed to his enemies, power and force, which thrive under conditions of space-extending present-mindedness. Thus Innis' dialectical historiography cannot be neo-Marxist dialectical materialism with a Canadian accent. In an important interpretation, but on different

grounds, Wernick (1986) reaches a similar conclusion.

24.A British political scientist, the first professor of this discipline hired at the London School of Economics, Wallas was known for his critique of rational calculation as a basis for political action, and warnings over the obstacles to individual fulfilment, and creative thought represented by centralized industrial societies. Key books included *Human Nature in Politics* (1908), *The Great Society* (1914), and of particular interest to Innis, *Social Judgement* (1934), as he noted in a paper delivered in 1948 (*Bias of Communication*: 191). Elsewhere he observes that Wallas "has reminded us that writing as compared with speaking involves an impression at the second remove and reading an impression at the third remove." (*Empire and Communications*, 8) Innis attempted, as he says in his introduction, to escape his own bias of communication and render such generalizations as to the significance of writing more precise by contrasting different civilizations, dependent as they are (or were) on various media of communications. (ibid.)

25.Eric McLuhan (McLuhan and McLuhan 1989) notes in the Introduction that "In researching the oral forms--the true forms--the work of F.M. Cornford, Eric Havelock and Pedro Lain-Entralgo has proved invaluable."

26.Cornford continues: "The literature of the great creative period preserves abundant traces of the resistance offered by pre-Euclidian common sense to the then revolutionary doctrine of infinite space" which had no centre and no circumference. (219.) "The Greek mind recoiled in horror from the boundless vacancy its own reasonings had conjured into existence." (232.) "The Euclidean era thus presents itself as a period of aberration, in which common sense was reluctantly lured away from the position that it has now, with no less reluctance, to regain." (235)

27.The dominant view, he notes, is that nonliterate culture must be a nonculture. In "Pre-literacy and the pre-Socratics" 1966: Havelock refers to speaking to an audience of classicists, a discipline which as a matter of pride, has "discouraged the use of general concepts and working hypotheses lest they lead to imaginative reconstructions based on assumptions which were not amenable to strict proof or controlled by evidence what (sic) was specific and concrete." Yet Havelock argues there were also related assumptions more powerful because not explicitly stated. "The first was that the Greek culture of the classical period was a wholly literate phenomenon much as our own."

28.Notes from the seminar 1953-4 were provided by then graduate student Donald Theall. The figure comes from Marchand (1989, 117). Easterbrook recalled that most of the money was spent on the purchase of books.

29.In the only other known correspondence between Innis and McLuhan, Innis responds

sympathetically to McLuhan's protest that a lecture given by Tyrwhitt was neither well publicized, nor attended. It seems apparent from the misspelling of McLuhan's name, and style of address that Innis did not recognize the identity of his correspondent.

30,Carpenter's sardonic memoir takes a very different view from this account, and reflects his opinion that McLuhan had no original ideas, instead "His genius lay in perceiving, not creating. He accepted the world as he found it and simply described what he saw, free of the haze he believed obstructed all others." (1992:9) Carpenter recognizes the influence of Ezra Pound on McLuhan, and the front page of the newspaper, a mosaic form, and observes "The capacity to link seemingly unrelated concepts is also, of course, at the heart of science." (1992:10). Carpenter believed that McLuhan's claim to a new science was part of his rhetorical bid to have his ideas taken seriously (1992:12), as was his claim of kinship with the ideas of Innis. I believe that FraemZone 1 demonstrates the impact of Innis on McLuhan, an impact and influence on McLuhan's clear recognition of his subject matter that seems incontrovertible, despite Carpenter's rhetoric of assertion. Carpenter's views are data, part of the rhetoric of intellectual controversy. As with many of the memoirs of those whose ideas were seized upon by McLuhan in the construction of his textwork, (eg. Havelock, Hall), a certain lingering resentment operates, which seems to stem from the celebrity process whereby one is singled out while others are ignored. Carpenter was disliked by many of McLuhan's other associates, including Easterbrook and Williams (de Kerckhove interview 1983). There seems no question that Carpenter's relationship with McLuhan during the nascent phase and afterwards--their friendship lasted until McLuhan's death, and McLuhan invited Carpenter to Fordham University the year of his appointment as Schweitzer professor--provided solidarity crucial to McLuhan's development. Note on this point McLuhan's numerous references to Carpenter in his texts, and in the interview with Stearn (1967), particularly the insertion of Carpenter's letter in support of McLuhan's his attack on the conventional anthropological bias against oral cultures, and imposition of unconscious literate bias (Stearn 1967, 266-268). However, Carpenter's disdain for the celebrity that he believed devoured McLuhan in the 1960s signifies his own commitment to a priestly model of scholarship, despite his unorthodoxy in other areas of life, and renders his account vulnerable. His published opinion was,"Knowledge of media alone is not sufficient protection from them. The moment Marshall McLuhan shifted from private media analyst to public media participant, he was converted into an image the media manipulated and exploited." (1972, 162) The most telling instance of this principled difference in approaches, and perhaps a direct response to his disapproval of the way in which McLuhan's ideas were promoted and circulated, may be found in Carpenter's later decision (after he married into wealth) to abandon conventional publishing practice, devote fifteen years to a multi-volume work which he then had privately printed and distributed to selected individuals and institutions. Support for this interpretation is also found in Carpenter's well justified recuperation of the reclusive dedication of the neglected anthropologist and linguist Dorothy Lee, who abhorred public, and particularly media,

attention (1992).

31.In particular, "Joyce, Mallarmé and the Press", "James Joyce: Trivial and Quadrivial"; "New Media and the New Education".

32.This concept was explored in an unpublished manuscript by Giedion outlining the concept, which circulated in the second year of the seminar.

33. In a veiled commentary on McLuhan's practice of borrowing from others whom he considered collaborators, many examples could be adduced from Carpenter's book: "Much contemporary music favours interface and interval, in contrast to the acoustic continuity of symphonic music. These techniques are basic to the poetry of Pound and Eliot, as they were for the Symbolists. Above all, Joyce took over the art of the interval." (1972, 26) "Electricity has made angels of us all--not angels in the Sunday school sense of being good or having wings, but spirit freed from flesh, capable of instant transportation anywhere. The moment we pick up a phone, we're nowhere in space, everywhere in spirit. Nixon on tv is everywhere at once... That is St Augustine's definition of God: a Being whose center is everywhere, whose borders are nowhere." (1972, 94)

34.I use this term to refer to the ability to reflect on one's own culture as an anthropologst would on a culture, the ability to "make the familiar strange."

35.McLuhan's graduate student, and later layman colleague at St. Michael's College, Donald Theall, initiated the Graduate Program in Communications at McGill, with other interested associates, from his position as head of the English department. Elsewhere, as at the University of Western Ontario and Carleton, communications study was associated with journalism.

36. McKillop (1987) provides an historical sidelight to these matters, in his essay "The Research Ideal and the University of Toronto." Discussing the protracted and often acrimonious debates over the proper place within the university of humanism and empirical research, he observes: "The University of Toronto is not today primarily known for its pioneering efforts in psychological research; it is, however, known for the broad-ranging speculative work of scholars such as Harold Innis, Charles Norris Cochrane, Marshall McLuhan, and Northrop Frye." (1987, 93) And he concludes his account of the equilibrium achieved by the 1906 University of Toronto Act with the comment: "Reflection and research could now co-exist in a propinquity of continuing unease but relative security, as well they should." (1987, 95) As McKillop notes, and as Theall (1971) had previously observed, there is much work to be done on the institutional structures within which Canadian intellectual history unfolds.

Telescoping this account to the present, in an unpublished report, history professor

Paul Rutherford (1994) enthusiastically reviewed the interest of University of Toronto faculty in communication (and cultural studies) research and teaching, and reminded University administrators of the global reputations of McLuhan and Innis, concluding: "The key is to find a scheme that will shape that constituency into a community." ("CCS Report", 26). He recommended that, "the McLuhan Program--the successor to the original centre--could become the catalyst for advanced work in the wide realm of Communication and Cultural Studies." (1994, 1) On June 28, 1994, thirty-one years after its founding, the McLuhan Program in Culture and Technology, no longer a Centre, was de-listed from the faculty of Graduate Studies, and is now a independent research unit within the Faculty of Information Studies. Of necessity students continue to leave Toronto in order to pursue graduate degrees in communications.

37. It is instructive on this point to contrast the position of intellectuals within other national cultures, and especially the 'star making apparatus' available elsewhere. Two valuable and very different sources of comparative insight on the question of post-war national intellectual communities can be found in Anna Boschetti's (1985) study of Sartre's position in France, *The Intellectual Enterprise*, and Richard Pells' (1985) *The Liberal Mind in a Conservative Age: American Intellectuals in the 1940s and 1950s.* This account is informed by the work of Berger (1986), Clark (1981), Fraser (1967), Harris (1988), Litt (1992), Lumsden, ed. (1970), McKillop (1987), Theall (1971; 1981b), and Tippett (1990). When such a history is written, the question of a preference for fashionable imported ideas, the export of domestic talent, the lack of domestic popular or scholarly media with the power, interest, and influence to make 'stars' of domestic intellectuals, and the role of significant numbers of British and American academics in Canadian universities will doubtless form important themes, in sharp contrast to the French and American cases. See Sanderson (1988).

38. In Chapter 3 the making of an academic morality tale on McLuhan is traced, designed to warn others who might be tempted to try a similar route. The rhetoric of intellectual controversy figures in Chapter 2, however critics implicated in the forging of the negative scholarly consensus (such as Carey and Theall) will be addressed in Chapter 3, where the counter-themata asserted in opposition to McLuhan's themes are probed.

39. Carey's view of the tradition continues "Nor were they without precedent, for it is hardly possible to understand the outcome of their encounters without taking into account the earlier work of Patrick Geddes, Lewis Mumford, John Dewey, Robert Park, and others in the Chicago School of Sociology, along with the omnipresent shadow of Kenneth Burke." This account of the tradition differs on this point, for the reason Carey (1967) had himself once recognized: the focus on the transformative role of communications media and technologies by Innis and McLuhan, was unprecedented.

40. It is historically noteworthy that Innis' lecture in 1951 in Paris was chaired by Febvre. It is not clear whether Braudel, Febvre's associate was present. Braudel began his panoramic history, using the key concepts of space and time in 1952.

41. Her comments include: "We should note the force, effect, and consequences of inventions which are nowhere more conspicuous than in those three which were unknown to the ancients, namely, printing, gunpowder, and the compass. For these three have changed the appearance and state of the whole world." *Novum Organum* aph. 129)... 708 "seeing how many of the facts of life that are presently being kept apart actually belong together."

42. She also cites, apparently favourably, the work of William Kuhns (41, 1980p), in reference to the influence of Mumford and Innis on McLuhan. However, even Kuhns now admits that he did not get it right.

43. Carey's critique is addressed in Chapter 3.

44. The Royal Commission on the Arts, Letters, and Sciences (1951) chaired by Vincent Massey.

45. This is one major reason why Chapter 4 focuses on the extensions and applications of McLuhan's insights by researchers probing television media. Furthermore, McLuhan remains unintelligible if treated as Czitrom proposes within American social scientific traditions, and without attention to the converging developments in the human sciences.

46. Chapter 1 addresses the substantive criticisms offered by Heyer (136-139). One point should be highlighted: McLuhan did not believe that television content during the 1960s constitute "its universal essence" as a reading of the works of the 1970s, and in particular "The meaning of commercial television" indicates. In the latter, McLuhan points out that what we know as television is undergoing change and transformation. His 'probes' were devised--*inter alia*--to avoid this sort of essentialism. The second point is that McLuhan was well aware of Sapir and Whorf, in fact questioning the absence of references to these works in the writings of Innis, in his review of *Changing Concepts of Time*. McLuhan's later work and formulation of the Laws of Media indicate his attempt to formulate the process of cultural transformation, and address the question of non-deterministic 'reciprocal influence' diagnosed by Heyer as absent from his work. (The early essays of the mid to late 1970s on the laws are not referenced by Heyer, and the book appears after Heyer's work).Heyer, who studied under Carpenter, credits Carpenter's influence on McLuhan, but his account is flawed by omission of the obvious influences going the other way in the mutual collaboration between the two men, as discussed above, and

conspicuously evident in Carpenter's *O What a Blow that Phantom Gave Me*.

1. Pages refer to the 1969 paperback editions cited in the bibliography.

2. See Jeffrey McAninch "Bibliography" on Southam Interactive/Voyager CD-ROM "Understanding McLuhan" (1996).

3. This point was argued from a textual perspective in Chapter 1, from a contextual perspective in Chapter 2 and will be argued from the perspective of later applications of his work in Chapter 4.

4. Uncommon but not unprecedented. See the discussion on Simmel, at the end of this Chapter.

5. In the history and philosophy of science debates in which Kuhn's work functioned as catalyst, perceptively dissected by Bernstein, McLuhan more closely resembles Paul Feyerabend, "the enfant terrible" of the philosophy of science, as argued in Jeffrey (1989, 7). In an interesting parallel with the interpretation of McLuhan presented in Chapter 1, Bernstein (1983, 61-63) shows how Feyerabend's contribution stems from his role as serious satirist.

6. In discussing the response to the work of Kuhn, Bernstein (1983, 51) cited the quotation from William James--which I have also found helpful in grasping the McLuhan controversy within its larger historical context--on the "classic stages of a theory's career": "First, you know, a theory is attacked as absurd; then it is admitted to be true, but obvious and insignificant; finally it is seen to be so important that its adversaries claim that they themselves discovered it." James obviously felt the sting of the rhetoric of response from his contemporaries.

7. To indicate that the ground explored here may prove fertile for other investigators, this Chapter offers a historical comparison through the brief discussion of the rhetorical tactics used against the controversial turn of the century sociologist Georg Simmel. That discussion cites various authors whose work on Simmel has influenced my thinking on the McLuhan controversy, and greatly contributed to development of the techniques used in this case study.

8. Communications history and the work of Innis and McLuhan have great relevance for other fields and subfields, including history, cultural studies, and information studies, a point not at issue here. After all, my argument is that fragments of McLuhan's work can be found splintered throughout the late twentieth-century intellectual landscape. However the interdiscipline of communications provides the major North American institutional and disciplinary focus for the core themata developed in McLuhan's work. I consider the same to be true for the later work of Innis, as I believe Czitrom (1982), Heyer (1988), and Crowley and Heyer (1991) make clear.

9. Again, the authors featured in this collection comprise a community in a rhetorical as well as a sociological sense, and the focus here is on the rhetorical community.

10. I must thank my undergraduate thesis advisor, Michael Schudson, who first helped me develop some of these ideas for my honours thesis in Social Relations, "The Origins of behaviorism in America" which traced scientism in relation to the professionalization of psychology as a discipline and the reactions of the public as traced through popular magazines 1910-1920. A more recent treatment of similar issues can be found in Carolyn Marvin's (1988) *When Old Technologies Were New*. Marvin, however, primarily focuses on a binary distinction between "experts" and "laymen", or "the public and expert mind" (6) in her chapter on "Inventing the Expert" (9-62). She pays limited attention to the distinctions among varieties of experts. However, in passing she does acknowledge the phenomena I have called "turf wars" and "pantheon building" although without these particular names (e.g. 53-56) in describing how the electrical engineers sought to identify with (*inter alia*) the mythical figure Prometheus, and to supplant the authority of the humanities with that of science. Surprisingly, for a "communications historian" (8) whose work is clearly indebted to both McLuhan and Innis, the latter is not mentioned, while the former receives one line. More will be said about this below.

11. In his postscript to the second edition, Kuhn (1970, 208) likewise admits that his concept of revolutionary paradigm shifts in science borrows from the work of historians of literature, music, the arts, political development and other endeavours.

12. The same broad use can be found in Kuhn's use of "paradigms."

13. A famous example is the nineteenth-century discovery by Kekule von Stradonitz of the structure of the benzene ring molecule, which came to him in a dream of a snake chasing its tail. The scientist certainly did not write up his dream.

14. Other series authors and their subjects included: John Lyons on Chomsky; Edmund Leach on Levi-Strauss; Alasdair MacIntyre on Marcuse; Raymond Williams on Orwell.

15. He is now a professor of Cultural Studies at Trent University in Peterborough, Ontario.

16. The reader is reminded that "The heat and the light" confines attention to the Anglo-American-Canadian milieu, and thus other significant works that simultaneously rejected and appropriated McLuhan, such as the important essay by the neo-Marxist Hans Magnus Enzensberger (1974) and the later appropriations of McLuhan by and impact of "mcluhanisme" on Barthes, Baudrillard and others are not covered.

17. There is no trace of this term's lineage in the *Oxford English Dictionary* (1989).

Raymond Williams (1976) published *Keywords* in an effort to provide "a vocabulary for culture and society" but in his 1983 revision does not discuss this term under technology or determinism. In his reference to debates over "determined" under the listing on media, he appears to refer directly to the McLuhan controversy, but offers no other source for this term. "The technical sense of *medium*, as something with its own specific and *determining* properties (in one version taking absolute priority over anything actually said or written or shown), has in practice been compatible with a social sense of *media* in which the practices and institutions are seen as agencies for quite other than their primary purposes." In a workshop on the topic held at MIT in 1989, no origin is offered for the term. The workshop is named after the classic article that seems to first refer explicitly to "technological determinism," Robert Heilbroner's "Does technology drive history?" from 1967. A 1926 article cited by several participants "The technological interpretation of history" is in fact a discussion of Marxian historical interpretation, in which the author argues that such an interpretation is technological and not economic.

18. See Chapter 2's discussion of McLuhan's performative approach. McLuhan wrote: "I find it very difficult to write or speak to both British and an American public in the same week. One has to "put on" the public as the garment or the "mask" which one must wear in speaking to them. In turn, this mask is the energy which one turns on when writing or speaking....The incoherence, the dispersed and non-focused character of the Canadian publics makes the Canadian writer or performer very uncertain about how to turn on the power that his audience potentially has." (*Letters* to Boyle 1971, 449)

19. MacMillan (1992) has made a similar case for McLuhan, extending a position taken previously by Curtis (1978) and Jeffrey (1989).

20. Certainly McLuhan concluded from his reading of Kuhn that most scientists were not interested in discovery (*Letters* to *The Listener* 1971, 443; *Letters* to Carpenter 1971, 450).

21. *Understanding Media* which sold more than 100,000 copies in paperback, was eventually translated into more than 20 languages.*(Letters*, 176).

22. An exchange of letters (kindly supplied by William Kuhns) between Gossage and McLuhan between 1966 and 1969 (the year of Gossage's untimely death) indicate the depth and range of this relationship. Gossage was an extraordinary figure, whose ambivalence about advertising was legendary (Gossage 1995).

23. More recently, Everette Dennis served as founding executive director of the Gannett Foundation, later the Freedom Forum Foundation. I thank him for providing a copy of his article.

24. Tim Page editor of the 1984 *The Glenn Gould Reader* (345) cites McLuhan in an essay on the prospects of recording--"The meaning of experience is typically one generation behind the experience--the content of new situations, both private and corporate, is typically the preceding situation--the first stage of mechanical culture became aware of agrarian values and pursuits--the first age of the planter glorified the hunt--and the first age of electronic culture (the day of the telegraph and the telephone) glorified the machine as an art form." Murray Schafer *The Tuning of the World* thanks McLuhan in the preface and opens: "The soundscape of the world is changing. Modern man is beginning to inhabit a world with an acoustic environment radically different from any he has heretofore known.(3).

25. After McLuhan's death the Centre for Culture and Technology (1963-1981) at the University of Toronto began a precarious institutional existence. It became an Institute, a Program in 1983, and finally in 1994 as the McLuhan Program in Culture and Technology, an independent research and teaching unit within the graduate Faculty of Library and Information Studies. Lacking resources the Program achieved limited strength as an interpretive centre for his thought. Derrick de Kerckhove became director in 1992, and by 1996-7 the Program's fortunes had improved somewhat.

26. The other figures mentioned by Havelock include Levi Strauss and Ernst Mayer.

27. These comments of course also apply to Innis' expanded sense of media.

28. Coyne also found resonances in the work of Heidegger, as had Heim.

29. These works came to light too late for full incorporation into this document, but serve to reinforce its central themes. Our interpretations differ radically, however, and it is fascinating to witness the neo-Marxist attempt to appropriate or defuse McLuhan, evident in both these projects.

30. I cannot find evidence for Theall's repeated assertion that Gregory Bateson is the source for McLuhan's ecological approach to communications.

31. A worthwhile companion project, for example, would trace the literary uses of McLuhan that are also evident. Thus B.W. Powe discusses McLuhan in his essay collection *The Solitary Outlaw* (1987), and Brian Fawcett McLuhanesque style and layout to dispute McLuhan's views in *Public Eye: An investigation into the disappearance of the world* (1990).

32. Unpublished letter February 15, 1966. Courtesy of Dr. William Kuhns.

33. In the use of paradox as a device in this Chapter, I have benefitted greatly from Rosalie Colie's *Paradoxia Epidemica*. McLuhan cites Colie among other influential sources in his chapter on paradox in *From Cliche to Archetype*, a chapter (and book) that underscores the affinity of paradox, in the rhetorical sense retrieved by Colie, for McLuhan's work.

34. Neither of these books are cited in Williams' selected bibliography nor is McLuhan's ongoing work in *From Cliche to Archetype* (1970), and *Through the Vanishing Point*.

35. I have been greatly influenced by the work of Richard Lanham (1992) in clarifying my conclusions.

36. I have also benefitted greatly from reflection upon the commentary by Donald Levine (1985) on Simmel, and in particular his thoughtful discussion of Simmel's ambiguity.

37. Donald Levine has insightfully analyzed these issues in *The Flight From Ambiguity: Essays In Social And Cultural Theory* (1985).

1. Brief commentary on the role of the collaborators (Eric McLuhan and Bruce Powers) whose work explicitly co-authored with McLuhan appeared in the Afterlife Decade of the 1980s can be found in Chapter 1.

2. More comprehensive bibliographies of writings about McLuhan appear in the following: McLuhan and Zingrone 1995; Marchand 1989; Whittaker 1994; and the Jeffrey/McAninch bibliography in the McLuhan Southam/Voyageur CD rom (1996).

3. Chapter 3 outlined the methodological and theoretical considerations underlying this approach.

4. Chapter 2 discussed the Toronto School of Communications and historical events whereby the attention McLuhan attracted in the 1960s also put the earlier work of Harold Innis on the public agenda.

5. McLuhan's work has been widely cannibalized. A typical and egregious example is Richard Saul Wurman's *Information Anxiety* (1989) which in form, style, and content is deeply indebted to McLuhan, who is not mentioned.

6. A welcome recent sign--the first I have witnessed--is the footnoted acknowledgement by Schement and Curtis (1995, 223, n.19) that they are limiting their summative evaluation and reduction of McLuhan's ideas to his work of the early 1960s.

7. Chapter 2 discusses McLuhan's role as the announcer of the shared findings from Innis, Havelock, and others.

8. Greenfield absorbs the work of Scribner and Cole on the Vai culture which established that schooling and literacy must be distinguished in studies of the effects of literacy. They also raised questions regarding the orality-literacy question, and in the process criticised some of Greenfield's field work in Senegal. She thus modifies some of the grander claims to a complete separation between oral and literate cultures, so as to bring greater nuance to questioning new media literacies. She also qualifies the version of literacy that ignored the process of formal schooling that accompanied it. However, she wisely refuses to permit this study to deter her from the investigation into the actual connections between literacy and media use in North American society, which of course is not confined to classroom use, and focuses instead on the consequences of a spectrum of literacies (1984, 75). Scribner and Cole concluded that formal education, not literacy in itself fosters "higher" intellectual skills (ibid., 76). Valid comparison between Vai and North American societies (based on their background in the Western intellectual tradition stretching back to ancient Greece) have not been pursued, but would require historical sensitivity lost in the experimental approach. Thematically, Greenfield tries to have it both ways, appearing to argue that on the one hand, the medium is the message, while on the other hand, it is not the medium itself that has impacts, but its use. This would appear to suggest that

anything is possible and that there are no medium constraints based on literacy and orality. The extreme version of this idea can be found (again ambiguously) in Finnegan (1988, 178), who argues reasonably that each particular cultural environment and media mix should be studied on its merits, and that ideal types (such as rigid distinctions between orality and literacy) may assume too much in advance, but unreasonably that the terms orality and literacy need to be discarded--in a book of this title! She appears to believe that any such study connotes racism or old fashioned notions of primitivism (ibid., 148). She protests that this is not her aim, that instead she intends a positive outcome (ibid., 159), but this protest is not backed up by her book. While important in qualifying certain arguments on the orality-literacy question, Finnegan's work (much admired by neo-Marxists who wish to discredit all but economic explanations of historical change, and in particular to continue to label McLuhan's contribution "technological determinism") merely proposes that such questions be displaced onto the vague factors and particular cases analysis, wherein economics, power, politics, and social factors must be brought.

9. *The Mechanical Bride* would assist Tichi's account by suggesting ways of linking the arts and technological developments. Most U.S. scholars are oblivious to *The Mechanical Bride*. See Diana Crane's *The Production of Culture: Media and the Urban Arts* (1992), an important treatment of approaches and neglect of popular culture by the academy. Crane lumps together Meyrowitz and McLuhan. Her thesis would also be more illuminating with the addition of McLuhan's contribution to North American study of popular culture in *The Mechanical Bride.*

10. Logan lists fourteen references to her work.

11. Latour (1987) comments that the only ideas that are part of science are those that are noticed.

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The references are divided into three sections: General References, McLuhan's Sources, and Works by McLuhan and his Collaborators.

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*

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Prior to university, I remain grateful for the invitation from OECA, later TV Ontario, to act as host/interviewer in a documentary probing my generation's views. That same year, 1969, I attended one of Marshall McLuhan's famous Monday night seminars, and was delighted to find that youth was no barrier to media investigation. Later, while studying at Harvard/Radcliffe, the conviction grew that despite McLuhan, the mass media, television in particular, had been seriously neglected by intellectuals, inside and outside the university. Most academic commentary seemed remote from the discipline and creativity of media production that I had witnessed on the TV Ontario documentary. Thus I decided to learn the trade before recommencing media scholarship. Returning to Toronto, I joined CityTV one year after its debut and participated from 1973-81 in this innovative and ultimately successful experiment in pushing past the limits of conventional television. The highpoint was a four-year stint as founding producer of *The Shulman File*, a prime time confrontation public affairs series hosted by the remarkable Dr. Morton Shulman. Moses Znaimer and Joan Schafer were sources of abiding inspiration. From 1981-87, I freelanced in TV, radio, and magazines, while covering the evolving media and cultural industries in Canada.

During this time, I began to "commute between the two planets" of the media and the academy and obtained a masters degree from York University (1987) in Environmental Studies, specializing in Communications Media Analysis. My honours paper scrutinized the Canadian Radio Television and Telecommunications Commission's Pay Television decision, and I thank Catherine Murray and Steve Kline (both now of Simon Fraser University) for their guidance. Electing to return to university life, it was my good fortune to be accepted into McGill University's Graduate Program in Communications, where an interest in communications history and the Canadian tradition of Innis and McLuhan thrived. A subsequent sessional teaching position at Trent University's Cultural Studies Program, and the opportunity to introduce an undergraduate course on "Television: History, Criticism and Theory" reconfirmed the sense that an appraisal of McLuhan for the 1990s was overdue. Later, the opportunity to co-curate the exhibition,

"Watching TV: Historic Televisions and Memorabilia from the MZTV Museum", at the Royal Ontario Museum, as acting director of the MZTV Museum established by Moses Znaimer, provided further affirmation for this conviction. McLuhan's ideas seemed eerily prescient once television found itself making room for the personal computer.

Whatever else, I am indebted to McLuhan for teaching those of us who came of age in the 1960s that Canadian intellectuals need not be dull, derivative, or boring, and that an original of global stature could emerge and spend his professional career here in the "great white north." He infuriated many; he also made them think. *Salut, McLuhan.*

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