

THE INTERNET TABLE
HOW CANADIAN ARTS AND CULTURE ORGANIZATIONS ENGAGE
WITH TELECOMMUNICATION POLICY

Claire Girard, Communication Studies

McGill University, Montreal

July 2013

A thesis submitted to McGill University in partial fulfilment of the requirements
of the degree of Master of Arts

© Claire Girard July 2013

Table of Contents

Abstract.....	5
Introduction.....	7
Chapter 1: Canadian Cultural Organizations.....	13
Defining the Arts Organization.....	13
Cultural Institutions.....	19
Cultural Industry Representative Organizations.....	21
Artists' Organizations.....	26
Art Service Organizations.....	27
Overlapping Types and the Necessity for an Inclusive Definition...	29
A History of Communication and Cultural Policy Advocacy From the	
Cultural Sector.....	31
The Canadian Radio League and the Canadian Broadcasting	
Corporation.....	32
Technological Developments and the Canadian Magazine Publishers	
Association.....	35
Quotas and Contributing to Culture: Music Industry Associations	
and FACTOR.....	37
Media-Reform in North-America, Telecommunication Liberalization,	
and Arts and Culture Organizations.....	39
Chapter 2: Content, Carriage, and Broadcasting in New Media.....	49
The Broadcasting in New Media Hearing.....	57

Funding.....	59
Access to Cultural Content and Diversity.....	61
Exempt or Extend.....	62
User-generated Content and Technologically Neutral Policy.....	63
Shelf-space and New Media Rights.....	64
A Fundamentally Different Digital Environment.....	65
Old and New Regimes and the Roles of Cultural Organizations.....	67
New Media, Part of the Broadcasting System as a Whole.....	69
Decision.....	73
New Media and ITMPs: Overlap and Change.....	74
Chapter Three - Arts Organizations and the Review of the Internet Traffic	
Management Practices (ITMPs) of Internet Service Providers.....	78
Net Neutrality, Digital Infrastructure and the ITMP Proceeding.....	78
When Pipes Begin to Matter.....	81
Review of the Internet Traffic Management Practices of Internet Service Providers	82
The Context of Media Concentration.....	85
Content creators, ISPs and Copyright: a Delicate Balance	96
Decision.....	101
Conclusion: Science and Technology Studies (STS), Actor- Network Theory (ANT), and Alternative Modes of Interacting with Telecommunication Infrastructure.....	
An STS and ANT Account of Technology.....	106

Its Own Terms: ITMPs and the Canadian Internet Today.....	113
ICT Activism Through Doing and Making.....	116
A Holistic Strategy and a Co-Productive Relationship.....	119
Bibliography.....	122

Abstract

Français

Ce projet examine l'engagement d'organismes culturels Canadiens avec les politiques de télécommunication lors de deux audiences publiques au Conseil de la Radiodiffusion et des Télécommunications Canadiennes (CRTC) en 2009. Le mémoire argumente que durant l'audience sur *La Radiodiffusion Canadienne par les Nouveaux Médias* ces organismes ont ajouté de nouvelles problématiques aux intérêts, historiquement centrés sur le contenu, qu'ils défendent et ont commencé à plaider les politiques qui gèrent le transport des données. Lors de la seconde audience, *l'Examen des Pratiques de Gestion du Trafic Internet des Fournisseurs de Services Internet*, ces organismes ont adressé directement le design, l'implémentation et le fonctionnement technique des technologies de la télécommunication dans leurs commentaires et présentations au Conseil. Le mémoire propose une typologie des organismes culturels Canadiens et résume leurs antécédents en défense des politiques culturelles et des communications. En utilisant une définition de la technologie orientée par les Études des Sciences et Technologies ainsi que de la théorie de l'acteur-réseau le projet démontre que la participation de ces groupes aux forums officiels d'élaboration des politiques de gouvernance internet est complétée par d'autres modes productifs d'interaction avec les technologies d'information et de communication (TIC). À l'aide d'exemples d'intégration des TIC par ces organismes dans leur travail le mémoire fait valoir que de telles pratiques produisent et contribuent à la redéfinition de l'internet. Les organismes culturels du Canada gagneraient à adopter une définition des TIC qui reflète leur relation mutuellement constitutive et co-productive. Le mémoire conclut que les infrastructures de télécommunication doivent être comprises comme étant des acteurs matériels et des participants afin de renforcer et responsabiliser les pratiques et la défense de politiques de ces organismes.

English

This project examines the engagement of Canadian arts and culture organizations with telecommunication policy at two Canadian Radio-television and Telecommunications Commission (CRTC) hearings held in 2009. The thesis argues that during the *Broadcasting in New Media* hearing arts organizations added a new set of issues to their historically content-centric advocacy concerns and began engaging with policy that regulates carriage. At the second hearing, the *Review of the Internet Traffic Management Practices of Internet Service Providers*, these groups in their comments and presentations to the regulator directly address the design, implementation and technical functioning of

telecommunication technologies. The thesis proposes a typology of Canadian arts and culture organizations and gives an account of their history of communication and cultural policy advocacy. Using a Science and Technology Studies and Actor-Network Theory oriented definition of technology the project shows that the participation by these groups in formal policy-making forums on internet governance issues is supplemented by other productive modes of engagement with information and communication technologies (ICTs). This thesis gives examples of these organizations integrating ICTs in their work and argues that such practices effectively produce and re-define the internet. Canadian arts and culture organizations would gain from adopting an understanding of ICTs that reflects their mutually constitutive and co-productive relationship. The thesis concludes that to become more empowered in both their practices and in policy decision-making arts and culture organizations should define telecommunication infrastructure as a material agent and participant.

Introduction

On July 8th 2009, at the CRTC's public hearing on Internet Traffic Management Practices (ITMPs), the Canadian Film and Television Production Association's (CFTPA) National Executive Vice President and Counsel John Barrack said:

While lawyers should not dictate the future evolution of the Internet, nor should this be the exclusive purview of the network engineers of ISPs. Since we all have a stake in the outcome, we all need a seat at the table.¹

In 2009 several arts and culture organizations like the CFTPA claimed their seat at the table and began appropriating internet governance topics hitherto excluded from their advocacy interests. These topics were relegated to the sidelines in part because of their technical nature and the political economy lens through which telecommunication issues are generally discussed. This research project focuses on this fascinating and exciting moment when a group of stakeholders representing the Canadian cultural sector asserted itself in a way that suggests that their relationship to information and communication technologies is more complex than one between a “cultural producer” and a “medium” or “tool”.

This project examines the relationship between these organizations and telecommunication infrastructure at the level of their formal and alternative modes of engagement. In Chapter 1, I define cultural organizations and describe a typology of these that will be useful for understanding their continuing and changing advocacy concerns as well as their roles in the Canadian communications environment. To provide context for current forms of engagement some historical moments when the cultural sector's organizations were active in communication and media policy advocacy are summarised. The chapter then situates these organizations in relation to the North-American media reform movement. The most important contribution of this project is its gathering

¹Canadian Radio-television and Telecommunications Commission (CRTC), *Transcript: Review of the Internet Traffic Management Practices of Internet Service Providers*, l. 2115.

and analysis of primary evidence of telecommunication policy advocacy by arts organizations. Chapter 2 and 3 provide an account of the engagement of arts and culture organizations with internet governance issues and telecommunication policy at the CRTC in 2009. I give a comprehensive review of the arguments and concerns of arts and culture organizations drawn from documents and transcripts of two hearings. The thesis documents a transformation in advocacy concerns expressed by these groups in the transition from the earlier New Media hearing to the later ITMP hearing, reflecting the fact that dominant divisions between content and carriage issues in policy-making are no longer appropriate (and may even lead to unjust outcomes) in relation to the cultural sector.

This project studies a certain policy moment but it has broader implications. Drawing on Science and Technology Studies scholars, Actor-Network Theory, and related work, this thesis underlines the importance of considering this moment an example of the complex relationship between people and technology. The concluding chapter explores the consequences and potential of considering this from the perspective of a revised definition of technology both at the level of the technological object and of the relationship between technology and humans. The main ambition of this project is to apply some aspects of an STS understanding of ICTs to gain insight into the engagement of arts and culture organizations with telecommunication policy and encourage an alternative definition of technological objects that is both more faithful to their actual experience and potentially, more empowering.

In addition to policy reform through representation and advocacy, arts organizations are able to change how the internet develops on a practical level and can thereby contribute to orienting the development and regulation of telecommunication infrastructure toward goals that are not reflected in instrumental concerns with efficiency, profitability and competition. STS and ANT aid in identifying how cultural producers and arts organizations do additional and differently productive work when they integrate ICTs into their practices which can in turn transform the internet. The thesis concludes by

discussing that a transformation in cultural practices, including production and participation, needs an institutional and technological setting that is conducive to the development of a cultural ecosystem that complements the practices of these cultural organizations.

In the Canadian context this interaction between arts organizations and technological objects is especially interesting, considering that the relationship between communication technology and culture maintained by government policy has historically been an interdependent one. Broadcasting historian Marc Raboy explains some patterns in the history of Canadian communication policy in the following way:

In the course of establishing a tradition of policy intervention for sociocultural objectives in culture and communication, Canada has built a set of important institutional practices for policy making in this area. Among these are the principle that communication infrastructures constitute a cornerstone of national cultural heritage, that the main instrument for realizing cultural communication policy is a mixed system of publicly owned and publicly regulated public and private industries, and that the participation of social groups is a central part of the policy making process.²

Among these social groups are arts and culture organizations, which have a history of advocacy in various cultural and communication policy making forums and who represent different workers and practices of the cultural sector. Scholars like Rabinovich and Dowler have been critical of the Canadian state's establishment of certain relationships and roles for culture and communication technology. For instance, Rabinovich identified four cyclical patterns in Canadian cultural policy, one of which was “technologically-triggered cultural policy”:

In other words, culture in Canada has often obtained its strongest political attention as an offshoot from its relationship to technological innovation, rather than for its intrinsic worth as a voice of creativity, social values and identity (...) Whatever the underlying motivation, the outcome is that technology has been the fundamental driver of modern cultural policy and this has been a consistent ‘verity’ in the shaping of the policy agenda.³

²Raboy, “A Challenge for Public Policy,” 12.

³Rabinovitch, “Four ‘Constants’ in Canadian Cultural Policy | Research and Collections.”

If government policy, the economy, and cultural practices must adapt to the seemingly self-driven phenomenon of technological innovation, it is time to be critical of how technology has driven cultural policy in Canada. The consequences of such a pattern, Dowler has argued, range from the over-investing of hope into the technology itself rather than in cultural substance, to the fetishization of “presence” delegated to communication technology as it held the “imagined nation” together. Discussing the Canadian Pacific Railway, Dowler argues that “overinvesting symbolic and semiotic hopes in communication infrastructures has resulted in what Charland calls the “absent nation””⁴ and that “in attempting to establish sovereignty and security through mere presence, it became the medium by which imports could inhibit the development of indigenous industrial capacity, and thereby erode its status as an instrument of national security.”⁵ Orienting cultural policy and projects in response to technological developments and as a complement to ICT innovations can have profound consequences on culture. Of course, it is difficult to instigate a conversation between technological objects and the cultural sector when so often the objects have been defined by their technical characteristics, solidly standing their ground as objects with fixed functions.

Arts and culture organizations are not necessarily familiar with technical telecommunication matters that are usually dealt with through the lens of political economy but they can still inject their own frames into telecommunication discussions. Part of the method for gaining ground on telecommunication infrastructure and internet governance issues is to reconnect with their material nature. If we define ICTs as open and interactive material participants we are equipped for example to draw out the contingencies of the technological objects that sustain the internet. These organizations negotiated with the physical limits of spectrum and bandwidth which cause congestion and justify traffic-shaping, both through policy advocacy and in their practices. By combining existing

⁴Dowler, “The Cultural Industries Policy Apparatus,” 332-336.

⁵Ibid., 332.

research in Canadian communication and cultural policy history with Science and Technology Studies this project argues that not only does the “carriage” policy advocacy exercised by arts organizations open information and communication technologies to alternative design, implementation and integration into cultural practices, but also that cultural organizations produce the internet through their practices and activities other than formal policy advocacy.

If the way a cultural organization is defined and self-defines matters so does the way material agents like telecommunication infrastructure are conceptualized. Their work and input can open up what telecommunication infrastructure means and can break open concepts like the “information superhighway” which sustain an idea of the internet as if it were an invisible, immaterial and free transportation network. In consequence, radically different subjects are constituted as a result of these alternative modes of interacting with information and communication technologies.⁶ The idea of “infrastructure” is a productive way to conceptualize what sustains the cultural sector both materially and symbolically, including telecommunication infrastructure. The internet is very much a material thing that is associated and works with other physical things, a thing with and through which cultural work and practices are made.⁷ This is evident in the inspired use that Québec arts organizations have made of the word “infrastructure” in their submissions to Industry Canada's call for comments on the Canadian “digital economy strategy” in 2010. The Regroupement des Centres d'Artistes Autogérés du Québec or RCAAQ calls for “infrastructures de création, de production et de diffusion qui valorisent le créateur de contenus”⁸ and the ADISQ “appuie, bien entendu, la volonté du gouvernement de doter le Canada de la meilleure infrastructure numérique possible pour les Canadiens.” When the cultural sector's organizations engaged directly with telecommunication policies at these policy hearings in 2009, they appropriated technological objects in ways that were very

⁶Poster, “Postmodern Virtualities,” 591, 587.

⁷Petersen, “Mundane Cyborg Practice Material Aspects of Broadband Internet Use,” 87.

⁸Réseau Art Actuel du Québec (RAAQ) and Réseau des Centres d'Artistes Autogérés du Québec (RCAAQ), “Accroître L'avantage Artistique Du Canada Par Le Numérique.”

specific to their work and named exactly how communication infrastructure was sustaining and supporting their cultural practices. The position of this thesis is that the convergence of telecommunications infrastructure and cultural practice points toward the need for a renewed understanding of the potential role of cultural organizations in co-producing the internet beyond the content/carriage divide.

Chapter 1: Canadian Cultural Organizations

Communication technology in Canada has historically been tied to cultural desires. This manifests in cultural, broadcasting and telecommunication policies. This chapter focuses on arts and culture organizations as actors in the Canadian context of communication policy.

To better understand the relationship between cultural organizations and telecommunication policy in Canada this section will first define what are arts and culture organizations. Some arts and culture organizations engage in communication and media policy advocacy. The second part of this chapter will present a brief overview of the history of communication and media policy advocacy from the cultural sector's organizations. The last section considers whether and how arts and culture organizations can contribute to and are situated in relation to the developing North-American “media-reform movement”.

Arts and culture organizations in Canada come in different types, which can be differentiated by their activities and through what activities or objects they generate value and derive their original services. While identifying categories of arts organizations helps our understanding of what kinds of associations compose the Canadian cultural sector as well as what kind of work these organizations do, it is also possible to discern that the arts organization is changing, sometimes in response to technological developments or to the cultural and communication policies that structure or underlie its activities.

Defining the Arts Organization

The way an arts organization is defined matters. Whether in the eyes of policy-makers, grant programs, the communication industry at large, government policy-making processes, or the Acts that orient decision-making on communication and culture, how the arts organization is conceptualized has

repercussions on its role, its responsibilities, the needs and interests it articulates, and the way it positions itself in relation to other actors. These definitions influence both the organization's self-definition as a political actor in policy advocacy and how the work of the members it represents is interpreted and integrated in the development of policy.

Whilst corraling art organizations into types, my aim is neither to identify nor defend the type of organization that is most effective in media-reform advocacy, nor whether there is a more productive way to define arts organizations in general. Rather, the work of differentiating and identifying the characteristics and activities of associations in the cultural sector is useful for understanding the relationship and role of different groups to government policy-making and to each other, to trace the importance of the market and labour for arts advocacy, and to demonstrate that the way in which an art organization is defined and defines itself matters. In many ways self-definition and policy definition are symbolic elements that help constitute and perpetuate roles, positions, activities, and the separation of various functions and sectors of the broader media and communication system in Canada, which includes the role of technology. Consequently, the way an organization defines itself, and the way the art organization's role and activities are defined, will have an impact on whether their advocacy will be bound to this role or attempt to subvert the position and user role to which they have been pinned. This contributes to whether arts and culture organizations are in a position to sustain or transform ICT policies, the various roles and rights attributed to governmental and non-governmental institutions, and finally the practices taken up by cultural organizations on or with the internet.

In the broadest sense, arts and culture organizations are organized groups and associations of people – artists, volunteers, employees, and members - that work in the cultural sector. This includes people that make or produce art or cultural products, those that employ and manage artists, and those that sustain the cultural sector through practices and activities that are different from art making, such as representation.

I identify four inclusive and overlapping types or categories of arts organization in Canada. First, some organizations represent the culture industries, and as such they are cultural industry representative organizations. Cultural institutions, artists' organizations and the arts-service organization are three other types. We cannot purport to cover the entirety of Canadian cultural life and of the arts sector under these simple types of association. Individual artists and the private enterprises of the cultural industries are not included in these categorizations. Before defining each type, this next section will go over some general characteristics of the arts and culture organization.

These four types of organization are usually non-profit. They can be local, national, or international. The Independent Film and Television Alliance or IFTA, for example, calls itself an “international non-profit trade association.” As a cultural industry representative organization the IFTA represents companies, some Canadian, which do all kinds of work in the independent film sector.⁹ According to a 2003 survey on Canadian non-profit, voluntary and charity organizations “Canada has 13,700 Arts and Culture organizations, which account for 9% of Canada’s 161,000 nonprofit and voluntary organizations. Arts and Culture organizations are the fifth most common type of nonprofit and voluntary organization in the country.”¹⁰

As they are “volunteer” or “non-profit,” these organizations are often categorized as part of Canada's third sector. This sector has important economic impacts: “when expressed in terms of its economic contribution, [Canada's third sector] ranks as the second largest non-profit sector in the world.”¹¹ In Canada, the non-profit sector's labour force is chiefly composed of women.¹² Arts and culture

⁹Independent Film & Television Alliance (IFTA) and Cleary, “Re: Public Notice 2008-19 - Review of the Internet Traffic Management Practices of Internet Service Providers. Reference No. 8646-C12-200815400,” para. 2.

¹⁰Imagine Canada, “National Survey of Nonprofit & Voluntary Organizations | Nonprofit Library Commons.”

¹¹Greenberg, “Building Communicative Capacity in the Third Sector: Research from Canada,” 53.

¹²“The nonprofit sector is predominantly staffed by women. While this holds true at every level, the proportion of male employees increases with seniority of the position. Furthermore, average compensation is higher for men at all levels except support staff, where women make 4%

organizations in particular generate annual revenues that amount to 3.4 billion dollars.¹³ To the Canada Council for the Arts an organization's non-profit status is part of the standard requirement for the allocation of funding.¹⁴ A trade association or a union, the kind of organization most often found to represent producers in the cultural industries, is considered a non-profit organization in Canada. Even though their members are companies or individuals that sell cultural products and art for a profit, the Independent Film and Television Alliance (IFTA), the Association Québécoise De l'Industrie du Disque, du Spectacle et de la Vidéo (ADISQ), the Canadian Recording Industry Association (CRIA) and the Documentary Organization of Canada (DOC) are non-profit trade associations, as are labour unions such as the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) and the Union des Artistes (UDA). Artefact, the Canadian Conference of the Arts (CCA) and Articule are also non-profits but represent and sustain the cultural sector through activities that are different from labour representation.

Some arts organizations share common activities and collaborate with each other, or their members are active in different organizations and hold multiple roles simultaneously. For example, most members of the Documentary Organization of Canada are independent documentary producers. But they also participate in the organization's activities as volunteers, advocates, representatives, mentors, teachers, writers, or fund-raisers – thereby also providing resources essential to sustaining their genre, or the life of independent documentary film making in the broader cultural sector. Artist-run centres like Articule employ emerging and professional artists while also serving as sites of collective production and dissemination.

more.” Association Resource Centre and Charity Village, *2011 Canadian Nonprofit Sector Compensation and Benefits Study*.

¹³Government of Canada, “National Survey of Non-profit and Voluntary Organizations (NSNVO).”

¹⁴Canada Council for the Arts, “Glossary of Canada Council Terms.”

“Culture” is defined by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as “the set of distinctive spiritual, material, intellectual and emotional features of society or a social group, and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs.”¹⁵ Hence culture is something that happens between people, groups of people, associations, generated in part by how people live together. Collectivity, gathering, community and these relations between individuals are an integral component or layer of culture, while culture also gathers an ensemble or “set” of characteristics, qualities or “features”, some of which are expressed in matter or material as well as in social practices of relation between people.

For a definition of culture to be productive for a Science and Technology Studies oriented project such as this one, it must be assumed that culture also manifests in processes, practices and technological objects. Technologies are culture, in the sense that objects themselves “carry no inherent meaning” but “their meanings are always to be found amongst social groups who interact with the technology and share a meaning of the technology.”¹⁶ It was underlined in the introduction of this project that several Science and Technology Studies scholars call for the dismantling of long-standing binaries that oppose the human and the nonhuman, material object or of nature and culture. One of the consequences of this for a definition of culture is the inclusion of technological objects as more than supplements or tools for the work of cultural organizations and cultural practices of all kinds. They are also actors and participants in the processes and matter of culture. The concluding chapter aims to describe in more detail how an STS informed understanding of communication technology could affect the relationship between arts and culture organizations, telecommunication technology and its policies. For now, to supplement this account, we note that

¹⁵UNESCO Universal Declaration on Cultural Diversity, November 2nd 2001

¹⁶Pinch, “On Making Infrastructure Visible.”

Raymond Williams identified several key distinctions regarding definitions of “culture”.

One of these is fundamental to understanding arts and culture organizations and the various ways in which they can be defined, whether they work within, alongside or at the margins of industries led by free market principles. Williams argues that “culture” has both material and symbolic or semiotic dimensions: “it is especially interesting that in archaeology and in cultural anthropology the reference to culture or a culture is primarily to material production, while in history and cultural studies the reference is primarily to signifying or symbolic systems.”¹⁷ If the study of culture includes both its material and symbolic dimensions, to study arts and culture organizations is to consider their material conditions and productions, in addition to their place in building and interpreting the Canadian imaginary as a whole. If technology is culture, then the symbolic assemblage of cultural policy, government institutions and the subject identities of arts and culture organizations also contribute to fixing and opening the meaning of technological objects. Indeed, for Williams, culture is a complex reality that is “always to be related rather than contrasted,” and culture lives in the “relations between material and symbolic production.” These precisions are compatible with the attention to relationality, co-production and networked assemblages insisted on by STS scholars.

Cultural organizations and their members, by their productions and their practices or what we will also designate as “work”, make meaning and add to Canadian imaginings of what the internet, or telecommunication infrastructure, is. While it is certainly the case that the expressive work that emerges from and is showcased by arts and culture organizations contributes to Canadians' interpretation, enjoyment, and appropriation of the arts into their own lives, arts organizations can also influence the Canadian symbolic environment at large through how they engage with other symbolic contexts like cultural policies and government institutions. It bears reminding that in STS and ANT, the nonhuman

¹⁷Williams, “Culture,” 91.

object is also a participant in which meaning is vested and culture sustained, hence artefacts are not “only” artefacts but also actors. As Latour said, objects are the “glue” that hold society together.¹⁸ For instance, take the complex and problematic concept that is the cultural industry/industries, well documented and critiqued in many works on the history of media and communication in Canada, and represented by one type of cultural organization: the cultural industry representative organization. Their organized production process, the industrial model that produces cultural objects that are goods subject to mass consumption in the domestic and international markets, defines the cultural industries.¹⁹ On the symbolic front, they are also holding together a collective desire for cultural identity and national sovereignty articulated by the Canadian state and implemented in a variety of policies and cultural institutions. These values and desires then become embedded in their practices and products as well as in the role played by technology in these. Ultimately, what cultural organizations do with, work with and how they use and don't use ICTs in Canada is as important as the institutional system and culture that establishes and governs the digital infrastructure and that subsequently uses and makes the internet. How cultural organizations are defined affects what they do and how they participate in institutional and economic contexts as well.

Cultural Institutions

“Cultural institutions” are cultural agencies that are mandated and funded by the Canadian government. They collaborate with and are a source of funding for individual artists as well as for associations of different kinds of cultural producers and workers. Hence the three other types of organization usually have

¹⁸Latour, *Reassembling the Social*.

¹⁹Lacroix, “Pour Une Théorie Des Industries Culturelles,” 7. Lacroix cites Miège to explain what defines the cultural industry: is it the commodity object, the tool or the organization of labour? Miège advised against defining the cultural industries by their usage of technological industrial processes but rather argues they are characterized by the organizations of cultural production followed by mass consumption practices.

some kind of working relationship with the cultural institution that represents their genre or medium of artistic practice. Starting with the establishment of the Public Archives of Canada (1873) and of the National Gallery (1880)²⁰, Canadian cultural institutions play a foundational role in the promotion, preservation, imagination and interpretation of Canadian identity and culture.

The government as a result of Royal Commissions and Task Forces on culture creates cultural institutions which carry out cultural and heritage policies and statutes. One example would be that of the Massey Commission of 1951, officially the “Royal Commission on National Development in the Arts, Letters and Sciences”, after which the Canada Council was established. Legislation like the *Canada Council Act* (1957) contributed to creating and organizing funding institutions for the arts and specified the mandate of national cultural institutions like museums, archives, galleries, the Canada Council for the Arts and the National Film Board.²¹

The Canada Council for the Arts hosts a glossary of cultural and policy terms on its website. This helps define the cultural sector, as the Council's working definitions orient the government agency and its application of cultural policy. This includes the allocation of grants to organizations and projects. The Canadian Broadcasting Corporation was created in 1936 after the Aird Commission of 1929 and the *Broadcasting Act* (1932) put in place the Canadian Radio Broadcasting Commission or CRBC. Agencies like the CBC can have difficulties fulfilling their mandates. For instance, Côté argues that what the CBC created was somewhat removed from a linguistically and geographically complicated reality: “CBC's cultural producers therefore participated in the creation of a pan-Canadian “imagined community” (Anderson 1991), with “raison communes d'exister” (common reasons to exist) (Dumont 1995) for a Canadian society increasingly divided and fragmented.”²² Arts agencies and cultural institutions must balance the reality of their organizational, institutional,

²⁰Jeannotte, *Timeline of Federal Cultural Policy Milestones : 1849 - 2005*.

²¹Ibid.

and social contexts while they work to apply the symbolic and aspirational dimension of a communication and cultural policy guided mandate.

Cultural Industry Representative Organizations

The “cultural industries” are “industries that produce cultural commodities.” This is an economic reality in tension with a symbolic reality: “a concept deployed in the discussion of specific Canadian policy problems.”²³ In *Cultural Industries in Canada*, Dorland argues that the “symbolic environment” composed of policies, commissions and government agencies has “created and defined the symbolic and linguistic framework within which the economic development of Canada's cultural industries has taken place.”²⁴ To fully comprehend the “cultural industries” we must also consider a second reality, what Dorland calls the “industry environment”. Expanding on Williams' dimensions of “culture”, Dorland insists on the importance of the market, of “economic circumstances”, and of the balancing act that the Canadian state has to perform in order to see its cultural policies enacted in an economically sustainable way.²⁵

Existing research and databases on the cultural industries in Canada and Québec offer more insight into what it means to translate art into the commodity market or to gather culture, its products, practices and activities, under the concept of an “industry”. Collections like the Dorland edited *Cultural Industries in Canada* and a more recent book edited by Ira Wagman and Peter Urquhart,

²²Wagman, Urquhart, and Côté, “Using Production Studies to Analyze Canada: A People’s History,” 198.

²³Dorland, *The Cultural Industries in Canada*, ix.

²⁴Ibid., xii.

²⁵In 1996, Dorland made a remark that sounds a lot like Côté’s observation on the CBC: “from the beginnings of the Canadian state’s involvement in the policy fields of cultural production, there has been an enormous gap between the rhetorical ambitions established by the language of cultural nationalism and the means available for the creation of the cultural institutions that would materially embody the ambitions of Canadians to create their own national culture. In this gap between ambition and means, between the symbolically charged language of the 1930s and the poverty-stricken reality, arose the policy dilemmas to which the idea of the cultural industries in the Canadian context was to emerge as a solution.” Dorland, *The Cultural Industries in Canada*, xi.

Cultural Industries.ca, break down the cultural industries model into different kinds of cultural products or objects. There are print industries (book, newspaper and magazine publishing), sound industries (sound recording and radio), and data/image industries (television, cinema, and video), to which *Cultural Industries.ca* adds video games.

Each of these products goes through a certain industrial process. Straw, in his account of the structure of sound recording industries, distinguishes the steps of this process as “production, distribution and exhibition/retail.” Lorimer et. al. similarly argue that “manufacturing, distribution and retail” order the life of the cultural product. Foote's “cultural economic chain” deploys “four basic functions”: “creation, production and distribution (including marketing and advertising), consumption and participation, and preservation.”²⁶ Foote's chain is a more inclusive and flexible lens through which to consider the cultural industries in general, and to understand the work of the various members represented by industry, trade and labour associations. Nevertheless, when the various definitions of the cultural industries are oriented by or toward the cultural product, not toward the cultural worker and cultural activities or practices, “representation” and “advocacy” are not accounted for. Yet these are essential elements that sustain the cultural object and the cultural producer.

For example, the Director's Guild of Canada, OnScreen Manitoba, the Ottawa-Gatineau Musician's Association and the Union des Artistes' main activities are representation through collective bargaining and policy advocacy, and their secondary activities are facilitation and education. They collect union/labour dues (“cotisation syndicale”) and their membership is composed of professionals in their respective sectors. Under the tag line “La Culture est une Force” the Union des Artistes website describes its activities in the following way:

À la dimension des relations du travail s'ajoute celle de la formation continue destinée aux artistes (...), les outils de développement économique

²⁶Foote, “The Changing Environments of Cultural Policy and Citizenship in Canada,” 101.

(...), la représentation auprès des instances politiques municipales, provinciales et fédérales.²⁷

Therefore, cultural industry representative organizations represent the interests of and facilitate the work of people at all levels of the cultural production process. The cultural industries themselves, as companies and groups of cultural industry workers, are differentiated from their representative organizations, which sustain and defend them. To see the cultural industries as a mode of organizing the production and consumption of a cultural object for example, is a definition that matters because it influences the way in which workers and their audiences are considered, as well as what position these actors are ascribed. A definition focused on the cultural object may not make room for the reality of labour, education, representation and the other work that organizations do, nor be attentive to how the cultural sector integrates ICTs into its work for reasons other than the straightforward production and dissemination of a cultural product or “content”.

An alternative way of mapping out the cultural sector and its organizations, other than placing the cultural product at its center and charting its progress along an industrial chain, is through the activities of these organizations. For example, in 2004, the Observatoire de la culture et des communications du Québec (OCCQ) published the “first exhaustive system of classification of cultural and communication activities in Québec”: the *Système de classification des activités de la culture et des communications du Québec* (SCACCQ). This typology of activities was organized in 15 domains: “it is the main activity of an establishment that will indicate in which domain and what group of the SCACCQ it should be classified”, and “within each of the 15 domains that compose the SCACCQ, the different groups listed are separated in four sub-categories: creation, production, diffusion/distribution and training.”²⁸ “Activities” are the

²⁷My translation: “To the dimension of work relations is added that of ongoing education for artists, tools for economic development, and representation at municipal, provincial and federal political forums”. Union des Artistes, “Qu’est-ce Que l’UDA?”.

²⁸“Système de classification des activités de la culture et des communications du Québec 2004.”

central characteristic around which this system classifies arts and culture organizations or establishments.²⁹ Most importantly for our purposes, the SCACCQ established domains according to medium and practice, which is more inclusive than the reference works on cultural industries in Canada mentioned prior,³⁰ where publishing, recording, and film production form the bulk of the industry definition. One of these domains for example is “promotion and representation organizations”.

The use of the terms “cultural industries”, “cultural product”, “Canadian culture”, “content producer” and “promotion and representation organizations” establish categories of stakeholder subjectivity, which are then performed in various contexts. Considering the “culture industries” through the lens of the political economy of communication in Canada, it is apparent that representative organizations are strongly oriented by the work their members make, most often designated as “cultural products”. They are oriented as well by the policies that support or regulate these, which contributes to containing the “culture industries” as intimately tied to industrial processes or steps: “the cultural industries are thus defined both by the type of product they make and the infrastructure and political economy that underpin them.”³¹ It is important to discern the different definitions of culture and different arts and culture organizations because these categories contribute to legitimizing organizations' self-identification and position at the various sites of their work and advocacy.

The description “cultural industry” does not usually designate forms of art work and cultural life that have traditionally been protected in cultural policy as

²⁹ The OCCQ selected this “main activity” “from the calculation of added value, a calculation based on the sum of salaries and social advantages, of depreciation and of the operative surplus. In the cases where there are no salaries (when the organization is mostly based on volunteer work, for example), the main activity is determined from the quantity of human resources affected (the number of days worked, for example)”.

³⁰ My translation: “visual arts, métiers d'art and media arts, performance arts, heritage, museum and archive institutions, libraries, books, periodicals, sound recording, cinema and audiovisual, radio and television, multimedia, architecture and design, advertising and public relations, promotion and representation organizations, public administration, and organizations that have activities in more than one domain in culture and communications.”

³¹ Druick, in Wagman and Urquhart, *Cultural Industries. Ca*, 123.

“elite” or “high” arts, such as the visual and performing arts. A chasm exists between “art for art’s sake” and art in or for the commodity market.³² The question is whether this is helpful or dis-empowering for the cultural sector to find itself oriented toward separate cultural and media policy domains depending on whether it identifies its productions as art that is subject to or protected from the free-market economy. The “cultural industries” then should be defined in a way that justifies considering cultural policy and media policy closer together. Napoli finds that

When the parameters of cultural policy expand to include the full breadth of cultural industries, much more of the regulated commercial media sector (broadcast television; cable television; radio; satellite; and, to a lesser extent, the Internet) involved in the production and distribution of cultural products falls within its boundaries as well.³³

The advocacy of cultural organizations on technology and communication policy, for example, could be bound by broadcasting and content production frames within media policy that do little to represent other artistic and cultural interests or practices that have less parallels with media production. On the other end of the spectrum of cultural policy and practice, arts organizations can do work that is organized differently than around the production and distribution of cultural products. The next categories of artists organization and arts-service organization help differentiate between studios, theatre and dance troops, galleries, symphony orchestras or other associations and sites that gather artists together around their individual or collective creative work, from the organizations that focus on representing and providing resources to these collective and individual performers and workers, as well as adding to the enjoyment of the arts by the public.

³²Discussing Bourdieu's *Les Règles de l'Art*, Vestheim argues that the values of culture overlap with politics, creating an “overlapping zone”: “The restrained production is anchored in an elitist approach to cultural and artistic values, i.e. a cultural production for the intellectual and social elite, who is supposed to love the ‘pure’ arts, l’art pour l’art. The broad publics have little importance in this universe, the advocates of l’art pour l’art deny the importance of economic capital (économie déniée, économie à envers).” Vestheim, “Cultural Policy-making”, 534.

³³Napoli, “Bridging Cultural Policy and Media Policy.”

Artists' Organizations

Creative and work-focused arts and culture organizations or “artist organizations” create value directly from the work of art or product but industrial processes do not structure their work. Galleries, operas, artist-run centres and theatre troupes showcase artworks and performances and generate value directly from the productions, works, or experiences being shared or sold to audiences, collectors and broadcasters. Their main activities depend on the value of an artwork or performance itself. Because of this, artists can come together around particular aesthetic values or objectives that inspire and add value to their expressive artworks. In a historical overview of the Federation of Canadian Artists, for example, Nurse finds that the regional and provincial artists’ associations of the 1930s and 1940s distinguished themselves from earlier artists’ organizations:

The new artistic societies of the 1930s tended to ignore aesthetic distinctions and looked to promote a broader unity among artists (...), to make art more accessible through picture loans, educational exhibitions and public lectures (...) [they hoped] would establish new links between the arts and society.³⁴

Nurse explains that artists’ organizations like the FCA are associations of “artists as artists” and thus center on the process of creation and the capacity of an artwork to engage with society. The Canada Council for the Arts, for example, identifies artists’ collectives or groups by their coalition “toward a common creative goal.”³⁵ In addition, they generally depend on the state for their survival:

Artistic organizations, such as orchestras and theatre and dance troupes, supplement their revenues from ticket sales with government grants and donations from individuals and business. With very few exceptions, being a creator or cultural producer in Canada is not economically viable without government intervention, a fact that endangers the very existence of Canadian cultural production.³⁶

³⁴Nurse, “Artists, Society, and Activism: The Federation of Canadian Artists and the Social Organization of Canadian Art,” 5.

³⁵Canada Council for the Arts, “Glossary of Canada Council Terms.”

³⁶Jackson and Lemieux, *The Arts and Canada's Cultural Policy (93-3e)*.

This justifies the extent to which cultural policy and various forms of subsidizing and funding the arts have historically been advocacy concerns for arts and culture organizations in general.³⁷ Yet compared to the rest of the non-profit sector, arts and culture organizations rely less on government funding.³⁸ Lastly, when individual artists or their companies coalesce together in an activity different from the production of an artwork, such as advocacy, education, facilitation or support activity— then they act as an arts-service organization.

Art Service Organizations

The representative organizations of the cultural industries as well as work-focused artist organizations and individual artists are invested in the success of the cultural sector in various artistic genres like theatre, dance, documentary film, publishing, music and visual arts. Similarly, arts-service organizations share these aspirations. They can make use of similar organizational strategies, coordinate activities collaboratively and find common areas of contention in media and cultural policy. Their levels of professionalization and their advocacy interests can differ. The fundamental difference between all these organizations is their main activity, the activity through and from which the respective organizations allocate the most resources³⁹ and generate value for their audience or members, ultimately the client or primary benefactor of their activities. The extent to which organizations commit themselves to work that provides sustaining infrastructure for artists, rather than on work that represents the main activity of their members, somewhat awkwardly defined by the concept of “cultural production,” is what differentiates cultural industry representative organizations from the art-service organization.

³⁷“The tax treatment of artists, artistic organizations and artists’ associations in Canada is a subject that has been publicly debated for decades.” Ibid.

³⁸“Arts and Culture organizations receive more of their revenues from earned income [fees for goods and services] and less from government than is the case in the sector as a whole.” Imagine Canada, “National Survey of Nonprofit & Voluntary Organizations | Nonprofit Library Commons.”

³⁹Statistics Canada and the OCCQ both use this parameter.

The Canada Council for the Arts defines the art-service organization as “a non-profit organization that furthers the interests of artists, creators, arts organizations and elements of the arts community. The organization’s activities can include policy development, advocacy, provision of professional services, and production of collective projects.”⁴⁰ While arts and culture organizations of all kinds can also do these kinds of activities, arts-service organizations live by this. They support and sustain the production and enjoyment of the arts, but through different activities, a different perspective, and sometimes a different kind of investment in the media system and institutional context. One report by the Boston Foundation defines arts service organizations in the following way:

Arts service organizations are, in many ways, the unacknowledged gems of the cultural ecosystem. They play an important role in supporting the work of artists and nonprofit agencies and in developing the sector’s cohesion and ability to meet its collective needs.⁴¹

They are “an important, but poorly understood segment of the arts sector.”⁴²

In sum, for the Boston Foundation, arts-service organizations are “non-profits that serve and enhance the capacity of arts organizations and/or individual artists, but are not themselves involved in producing or presenting art or artists.” Yet some arts-service organizations, we will see later, in addition to advocacy and trade or labour oriented representation activities, can contribute to the dissemination or “presentation” of art works through other activities – sometimes even as simply as hosting some of their member's work on their website. Organizations have integrated ICTs into their work for several years now and some of their practices, activities and advocacy strategies have changed and expanded because of these.⁴³

⁴⁰Canada Council for the Arts, “Glossary of Canada Council Terms.”

⁴¹June Wang, Susan Nelson, and Ann McQueen, *Arts Service Organizations: A Study of Impact and Capacity*, 2.

⁴²“Arts Service Organizations: A Study of Impact and Capacity,” 4.

⁴³As Steve Anderson from OpenMedia explains to the commission at the *Review of billing practices for wholesale residential high speed access services* hearing : “It’s a network-based organization so I understand that is maybe a different kind of organization than you are used to, but I feel like it’s reflective of the digital age.”Government of Canada, *ARCHIVED - Transcript of Proceeding - Review of Billing Practices for Wholesale Residential High Speed Access Services - Notice of Consultation CRTC 2011-77 - 12 July 2011*, 1. 1604.

Overlapping Types and the Necessity for an Inclusive Definition

One organization that self-defines both as an arts-service organization and a trade association is the Documentary Organization of Canada. In its official comments to the CRTC's hearing on the potential merger of Bell and Astral in December 2012, the DOC writes:

DOC is a national, non-profit, arts-service organization representing over 800 directors, producers and craftspeople who work in all genres of documentary, all over the country. Unlike other trade organizations that represent producers, directors, writers and actors working in ALL genres, DOC represents those occupying those positions working in ONE genre.⁴⁴

In this example, the DOC defines itself as an arts-service organization while comparing itself to other “trade associations.” Its primary activity is not collective bargaining nor does it collect labour dues. DOC organizes and produces a variety of supporting events and activities for its members who make independent films or enjoy them. Membership does not require one to be a professional in the independent film sector.⁴⁵ Another way to describe the DOC is as an “industry lobby group.”⁴⁶

Other arts-service organizations do not primarily organize around representation activities with an advocacy or labour orientation, hence disqualifying them from the designation of “trade association”, yet they are not exclusively focused on the creation of art works. Examples include Artex, an organization whose primary activities are archiving, documenting and research, Vtape, an organization whose primary activities are archiving and access-oriented digitization, and Douteux.org, an organization whose primary activity is live and online streaming of re-contextualized and found video. As categories of

⁴⁴Fitzgibbons and Letourneau, “DOC Oral Presentation Concerning Bell’s Proposed Takeover of Astral.”

⁴⁵If the Documentary Organization of Canada considers itself an arts-service organization, it also contributes to organizing projection events such as festivals (HotDocs) and collaborates with other organizations to build and maintain Docspace.ca, a website where “you can discover new films and filmmakers, read about the latest industry News & Events, find out about upcoming Screenings and Broadcasts and access Professional Resources and Classifieds”.

⁴⁶Urquhart, “Film and Television: A Success?,” 23.

organizations overlap, so does the purview of cultural and media policy and the integration of new ICTs into various levels of cultural production, distribution and enjoyment.⁴⁷

The categorization of arts organizations made in this chapter is meant to recognize the differences and relationships between kinds of associations in the cultural sector. It is clear that many of these organizations share common characteristics. Their identification with a specific category is the result of various influences, from the way they are defined in cultural and communication policy to the kind of work grant-making institutions look for in an application. Some definitions of the “arts-service” organization would locate the presentation and diffusion of cultural works as outside the arts-service domain, while definitions of the cultural industries that focus on the life of the cultural product do not include the work done by their trade and labour associations. The history of these organizations' involvement with media policy as well as the activities they describe and practice through their websites draws a broader picture.

The way in which cultural organizations define themselves and are defined matters, in particular for their position and strategy in the policy advocacy work they may do. It also matters to how an organization interprets and implements technologies like the internet into their practices and to what extent they consider their own capacity to transform ICTs. It is one thing to navigate the complex and interdependent types of arts organizations that constitute the cultural sector. It is another to study their activities, and their relationship to, or use of, technology. Part of the work arts and culture organizations have done and continue to do is communication and cultural policy advocacy, much of it in response to new technological developments.

Throughout Canadian communication and cultural policy history the role or status of the artist and of the arts organization has changed. One constant, however, has been the regularity with which the cultural sector has engaged with

⁴⁷Napoli, “Bridging Cultural Policy and Media Policy,” 318.

communication and media policy that regulates content, a tendency Chapter 2 addresses in more detail. Content policy concerns the messages that are broadcast, their diversity and accessibility, copyright, gatekeeping, freedom of expression and funding the production of this content. As was mentioned in the Introduction, Rabinovich has argued that much cultural and communication policy in Canada was developed in reaction or response to technological developments. He asks, “is technological innovation viewed as a threat or as an opportunity for Canadian culture and identity?”⁴⁸ For instance, new technological developments helped increase the presence of American entertainment and culture on Canadian media platforms. Cultural and communication policy was sensitive to this, attributing to institutions and policies the mandate of holding together a Canadian national identity in the imagination, continually re-affirming the way of life Canadians shared in common or establishing the frames of meaning through which they could interpret the experience of Canada as different from the United States. As a result, arts and culture advocacy strategies have focused primarily on content issues. The question is whether this advocacy tendency can or should withstand the arrival of the newest information and communication technologies in the current context, after a period of “telecommunication liberalization” in the mid-1990s and increased concentration and convergence of the media system.

A History of Communication and Cultural Policy

Advocacy From the Cultural Sector

To better understand what shape the communication policy advocacy of arts and culture organizations is taking today and to set a Canadian context for the development of a media-reform movement in North-America of which arts organizations can be a part of, this next section will give a brief historical survey of some significant events in media and communication technology policy-

⁴⁸Rabinovitch, “Four ‘Constants’ in Canadian Cultural Policy.”

making with which these types of organizations were engaged. As we will see, public interest groups and advocates from the cultural sector have engaged with Canadian communications and media policies prior to the emergence of what has been identified as the “media-reform movement” of the North-Americas and the period of “telecommunications liberalization” that brought forth a new public interest for ICT policy. Hackett and Anderson remind us that the Canadian context of media policy and hence the set of precedents for policy advocacy is different from the American context.⁴⁹

The Canadian Radio League and the Canadian Broadcasting Corporation

Canada's media policy making culture and its participants have come a long way since the Ministry of Marine and Fisheries began granting wireless licences and the *Radio-telegraph Act* (1913) expanded the function of wireless technology beyond telegraphy.⁵⁰ In 1929, the Royal Commission on Radio Broadcasting or Aird Commission was lobbied by two opposing groups that represented private and public radio interests: the Canadian Association of Broadcasters (CAB) and the Canadian Radio League (CRL). Cited by Shade as “one of the most successful public interest lobby pressure groups in Canadian history,” and by Hackett and Anderson as “one of the earliest and most successful communication reform movements in the mass-mediated world,” the convincing case made by the CRL and Graham Spry influenced the government to consider whether the free market could fulfil Canadian needs and desires for cultural

⁴⁹ “Compared to the U.S., Canada has a more strongly institutionalized political Left, labour movement, and social democratic element in the political culture; a stronger though beleaguered public service broadcaster; historical though contested support for “cultural sovereignty” vis-à-vis the powerful pull of the American media industries; a much higher degree of media concentration; a weaker libertarian tradition; far fewer philanthropic funding foundations; and fragmented identities and weaker sense of pan-Canadian nationalism, associated with strong regionalism, cultural and linguistic dualism, and Québec's “distinct society.”” Hackett and Anderson, “Revitalizing a Media Reform Movement in Canada,” 7.

⁵⁰ Lorimer, Gasher, and Skinner, *Mass Communication in Canada*, 158; Jeannotte, *Timeline of Federal Cultural Policy Milestones - : 1849 - 2005*.

sovereignty and national identity. The Aird Report's recommendations led to the first *Broadcasting Act* in 1932, which put in place the Canadian Radio Broadcasting Commission, ancestor of the CRTC and CBC.⁵¹ These debates at the Aird Commission drew the broad strokes of some arguments with which stakeholders in communication policy still negotiate, “between those who preferred that radio be run on the principles of a free market and those who saw the need for state intervention to ensure that Canadian radio was not Americanized.”⁵² With the *Broadcasting Act* of 1936 the CBC was established both as a regulator and a public broadcaster,⁵³ and became one of the most important cultural institutions for Canadian identity and culture.⁵⁴ That cultural identity and national sovereignty were defended as public interests by the state, and that civil society and cultural actors saw these protected and promoted in part through state regulation of communication technologies are distinctive traits of the Canadian media system that have roots in these first policy-making events.⁵⁵

In the 1940s Canadian artists formed the Federation of Canadian Artists (FCA), “Canada's first national artists’ organization that brought artists together as artists.”⁵⁶ The 1941 Kingston Conference and the discussions that followed within the FCA planted seeds for art activism, organization, and engagement with cultural policy-making.⁵⁷ Especially concerned with the role of the artist in the aftermath of WWII, artists discussed the relationship of artists to Canadian

⁵¹ Government of Canada, “CRTC Origins.”

⁵² Although the American “threat” still motivates some cultural and trade policies in Canada, cultural imports flow from all over the world, in part due to technological change and a “globalization” of the economy. Lorimer, Gasher, and Skinner, *Mass Communication in Canada*, 158.

⁵³ Jeannotte, *Timeline of Federal Cultural Policy Milestones - : 1849 - 2005*.

⁵⁴ Fillion, “Radio,” 121.

⁵⁵ Raboy has articulated and demonstrated these historic principles throughout his work, specifically Raboy, “A Challenge for Public Policy”; Raboy, “Public Television”; Raboy, “The Role of Public Consultation in Shaping the Canadian Broadcasting System.”

⁵⁶ Artist organizations existed prior to the FCA. Nurse notes the Royal Canadian Academy, the Ontario Society of Artists, the Maritime Art Association, The Toronto Picture Loan Society, and others. Nurse, “Artists, Society, and Activism: The Federation of Canadian Artists and the Social Organization of Canadian Art,” 1.

⁵⁷ “The best means to realize the potential of socially meaningful art was through a national artistic organization.” Nurse argues that the self-organization of artists in reaction to problems of modernity in the 1930s and 1940s contributed to the establishment of arts activism in Canada for decades to follow. *Ibid.*, 6-15.

citizens, art consumers, and labour.⁵⁸ In 1944 the FCA presented the “Artists’ Brief to the Reconstruction Committee” to the Reconstruction and Re-establishment or Turgeon Committee⁵⁹ and the Canadian Arts Council, predecessor of the Canadian Conference of the Arts, was founded.⁶⁰ The CAC was a “coalition of 16 Canadian artists’ organizations” which “combined the memberships of the coalition organizations and was a voluntary advocacy association, not a federal arm’s-length agency.”⁶¹ The Kingston Conference, the FCA, the Brief, and the ideas and interests that were debated within these forums continued to inspire the CAC's advocacy when it presented to the Massey Commission (or Royal Commission on National Development in the Arts, Letters and Sciences) in 1950.⁶² Nurse notes that it is the view of both Bieler and Tippet that the Kingston Conference set the Canadian artistic and cultural community in motion toward defending their interests at the Massey Commission⁶³ which included organizing arts institutions⁶⁴ and developing more formal, government supported roles for artists in society:

As early as 1951, for example, key conference organizer André Bieler, suggested that the Kingston Conference began the process leading to the Royal Commission on National Development in Arts, Letters, and Sciences. In *Making Culture* Maria Tippet supported this assessment, arguing that the Kingston Conference stood at a key dividing line in the institutional history of Canadian art. It served to draw out the idea that the arts merited state financial support and should not be left on a laissez faire basis.⁶⁵

⁵⁸Ibid., 14,15.

⁵⁹Jeannotte, *Timeline of Federal Cultural Policy Milestones - : 1849 - 2005*.

⁶⁰Upchurch, “Linking Cultural Policy from Great Britain to Canada.”

⁶¹Ibid., 248.

⁶²“History | Canadian Conference of the Arts.”

⁶³“to put a Canadian signature on 20th century electronic media” and “to put policy rationales behind the establishment of publicly funded cultural institutions” were two goals of the Massey commission which “marked an important shift from small-scale, artisanal, community-level cultural production to culture with more national (and international) ambition (Tippet 1990, Druick 2006).” Wagman, Urquhart, and Druick, “Continuity and Change in the Discourse of Canada’s Cultural Industries,” 138.

⁶⁴Jeannotte, *Timeline of Federal Cultural Policy Milestones - : 1849 - 2005*.

⁶⁵Nurse, “Artists, Society, and Activism: The Federation of Canadian Artists and the Social Organization of Canadian Art,” 1.

From early on Canadian artists organizations mobilized to represent their interests and advocate for the place of culture in society directly through government forums.

Technological Developments and the Canadian Magazine Publishers Association

In the 1950 and 1960s television and cable were new distribution platforms the cultural sector had to interact and work with. State policies and the Massey Commission had oriented the beginnings of television in Canada to be “strictly a public affair”⁶⁶ until the 1960s. An interesting argument made by Dorland suggests that in this period a transition from an environment of scarcity to one of quantity or abundance took place, in part thanks to technological developments (television had “voracious” demands for programming content) and government policies. He explains: “enabled by the rhetoric of cultural nationalism, was a relatively smooth transition from the pre-1960s universe of the regulation of media scarcity to the post-1960s management of media abundance.”

⁶⁷

In the film sector, trade associations advocated for “support to the development of private-sector feature film production” in 1963. In 1968, the Association Professionnelle des Cinéastes (Québec) and the Directors Guild of Canada saw their demands answered by the creation of the Canadian Film Development Corporation or CFDC, which continues to exist today as Telefilm.⁶⁸ With the O’Leary Commission of the 1960s, the Canadian Magazine Publishers Association fought to obtain postal subsidies, customs tariffs, taxes on advertising and the regulation of split-run publications as a response to the difficulties both American publications and the large territory over which publications were

⁶⁶Raboy, “Public Television,” 183.

⁶⁷ Ibid., 354–355. The transition from a public-only to a “hybrid system” and the struggles of the CBC as cable and private broadcasting became more important is documented by Raboy and by Jeffrey in Dorland. Community television is also addressed.

⁶⁸ Magder, “Film and Video Production,” 147.

distributed presented for the magazine industry. What makes the CMPA⁶⁹ case special in the context of media policy advocacy on behalf of the cultural sector is that it lobbied for policies on infrastructure essential to a cultural product's distribution activities. As it did so, it underlined the importance of mobilizing the postal infrastructure and trade policies to protect the diversity of Canadian culture:

magazines as a cultural force and industry have been nurtured and promoted by the industry's advocacy organization, the Canadian Magazine Publishers association (CMPA). Its close attention to policy issues, economic trends and technological changes never seems to abate: witness its constant lobbying against split-runs. However the CMPA has been more than a watchdog: it relishes every opportunity to describe and emphasize the vitality and distinctiveness of the industry. This is more than a promotional or lobbying tactic (...) the membership of the CMPA reflects the industry's diversity (...) The CMPA repeatedly claims that the rapid and huge decrease in postal subsidies is threatening the life of magazine publishing. It also continues to call for the removal of the Goods and Services Tax (GST) on magazines.⁷⁰

Before having to deal with satellite transmissions of American magazine *Sports Illustrated* in 1993⁷¹ the CMPA also saw the Canada Council demand more “artistic content” from three publications. There is no detail on whether they advocated against this request, which was eventually dropped.⁷² From 2006 to 2010, the participation of Canada Post in the subsidizing of magazine publishing decreased. Magazine publishers receive support from the Canada Periodical Fund instead.⁷³

⁶⁹ Not to be confused with the Canadian Media Producers' Association or the Canadian Music Publishers Association.

⁷⁰ Dubinsky, “Periodical Publishing,” 42.

⁷¹ Thomas, *Bill C-55: An Act Respecting Advertising Services Supplied by Foreign Periodical Publishers (LS323e)*.

⁷² Dubinsky, “Periodical Publishing,” 47.

⁷³ Dornan, “Newspaper Publishing,” 71.

Quotas and Contributing to Culture: Music Industry Associations and FACTOR

Canadian content regulations, which were set for television in when it was opened to private broadcasters with the *Broadcasting Act* of 1968, and for radio in 1971, are one of the most distinctive characteristics of the Canadian media system. Thanks to the involvement of cultural industry representative groups Canadian-content regulations became an incentive not only for playing and enjoying Canadian music, but also to create. In order to broaden the pool from which to draw Canadian talent, and thus reduce the difficulty for broadcasters to adhere to regulation, a coalition of broadcasters and trade associations formed FACTOR or the Fund to Assist Canadian Talent on Record in 1982.⁷⁴ Cultural industry representative organizations that were part of this coalition include the Canadian Music Publishers Association (CMPA) and the Canadian Independent Record Producers Association (CIRPA).⁷⁵ According to Lorimer et al., CIRPA “have always insisted that the Canadian-content rules on broadcasting (radio and television) are essential to their survival and those of the artists they record.”⁷⁶ Today artists and their representative organizations continue to negotiate for Canadian content policies to ensure their work will be available on major broadcasting platforms.⁷⁷ But FACTOR and the content quotas could only go so far:

The limitations of Canadian content began to emerge even in the early 1980s as the policy was clearly insufficient to guarantee a reasonable market share for Canadian artists. In the late 1990s the concern over the lack of access to the airwaves of emerging and local artists began to cause some to look at restructuring Canadian content regulations as a way to

⁷⁴Straw, “Sound Recording,” 105; Sutherland, “Sound Recording and Radio: Intersections and Overlaps,” 44.

⁷⁵Straw, “Sound Recording,” 106–107.

⁷⁶Lorimer, Gasher, and Skinner, *Mass Communication in Canada*, 176–177.

⁷⁷ In a survey of different groups over the five years that preceded the 1991 Broadcasting Act, Marc Raboy also found that “among the strongest supporters of increased Canadian content were the independent producers and artistic groups, all of whom stood to gain from higher content quotas.” (1995, 463) Raboy, “The Role of Public Consultation in Shaping the Canadian Broadcasting System,” 463.

address the problem. The 1998 regulations, however, did nothing to resolve this, although they did raise the level of Canadian content to 35 per cent.⁷⁸

The need for artists to see their work represented in the range of media available to Canadians continues to be a central tenant of the advocacy of cultural organizations. Broadcasting policies that include Canadian content regulations set a minimum standard of responsibility for private companies toward Canadian artists and the public interest. Other sectors like the newspaper industry and the film industry had to engage differently in order to preserve diversity in the Canadian media system. Although historically Canadian newspapers have been successful independently from the state, Dornan describes a period in the 1980s and 1990s when the potential hazards of cross-ownership and the convergence of media companies into conglomerates that owned multiple media platforms became evident.⁷⁹ Large cable and telephone companies were able to buy newspaper companies, and the Canadian Daily Newspaper Association fought against ownership concentration during the Kent Commission in 1981. This marked a moment where the press was asking for “regulatory protection.”⁸⁰ Another example of arts and culture organizations disagreeing with the ownership structure of their sector and fighting for large media corporations to contribute to Canadian culture is the case of Viacom in the mid-1990s. Organizations like the Directors Guild of Canada lobbied the government when Viacom grew into a powerful gatekeeper:

After Viacom's 1994 takeover of Paramount Communications in the United States, the Directors' Guild of Canada, together with nine other organizations, asked the federal government to instruct Viacom to divest the Famous Players theatre chain to Canadians and to limit itself to distributing only those films that it produced. Viacom responded by establishing Viacom Canada and promised to dole out \$5 million over five years to Canadian arts organizations (...) [and later] invest \$377 million in film and television production by 1999.⁸¹

⁷⁸ Sutherland, “Sound Recording and Radio: Intersections and Overlaps,” 44.

⁷⁹ Dornan, “Newspaper Publishing”; Dornan, “Newspapers and Magazines: Of Crows and Finches,” 59.

⁸⁰ Dornan, “Newspaper Publishing,” 91.

⁸¹ Magder, “Film and Video Production,” 172.

To ensure the survival of their members in the face of increased media consolidation and protect the Canadian film industry, cultural organizations advocated for the establishment of agreements that mediated the relationship between cultural producers and distributors. This ensured that what Tim Wu calls “the economy of ideas and images”⁸² of the Canadian film industry held a fighting chance against the economies of scale of its neighbour.

Media-Reform in North-America, Telecommunication Liberalization, and Arts and Culture Organizations

In the mid-1990s, the combination of the implementation of new technologies with the de-regulatory policy climate in North-America set the stage for a renewal of media and communication policy activism. Several scholars have identified a period of telecommunication deregulation in the 1990s which was followed by the growth of the North-American media-reform movement. Paré explains this context of “telecommunications liberalization”:

A defining feature of this period [the first half of the 1990s] was the notable shift in policy discourse away from viewing communications and information as public goods toward perceiving them as largely technological phenomena that predominantly fell under the auspices of private sector considerations. Accordingly, the regulatory distinction between carriage and content providers was increasingly identified as no longer appropriate to the realities of the emergent global networked economy.⁸³

Paré goes on to explain that this view is apparent in the CRTC's 1994, 1996, and 1999 telecommunication policy and new media decisions. In order to see technological innovation unimpeded to grow into a force for the Canadian economy the CRTC decided that definition and boundary transcending telecommunication technologies should be left to the market. The mobilization of public interest and civil society organizations' advocacy on new information and communication technologies was possibly a result of this deregulatory culture

⁸² Wu, *The Master Switch*, 69.

⁸³ Paré, “Telecommunications: Plus ça Change, Plus C’est La Même Chose?,” 116.

that considered the convergence of content and carriage technology and provision justification for deregulating the sector. In his literature review on media reform as a social movement, Napoli confirms that

in the early 1990s, however, many scholars noted an upsurge in media reform activity, spurred this time by developments in telecommunication technology and infrastructure usage, accessibility, and affordability – particularly in relation to the emergence of the Internet.⁸⁴

While new technological developments and the subsequent policy changes they engendered did inspire media-reform activism, Mueller, Kuerbis and Pagé find that over the years, the orientation or mode of advocacy groups in the United States change, for example when “the rise of Internet-related policy issues in the late 1990s seems to have made a big difference, pushing advocacy away from content and more toward contestation around individual rights and economics.”⁸⁵ They also identify the period of “telecommunication liberalization” as having begun in the United States but continued in many other countries.⁸⁶ Finally, advocacy organizations that rallied around “content” issues were not properly equipped to engage with the political economy lens through which telecommunication policy issues were being discussed:

The theoretical and analytical tools of economists (especially the law and economics analysis associated with Chicago-School economists) provided the primary basis for comprehending the interaction of law, regulation, economics and technology. Economic modes of analysis filled a dire need, as regulators were confronted with complex technological changes and new institutional and legal problems caused by them. Media activists who were focused more on culture and content had a difficult time participating in this dialogue. Instead, the lead public interest role in responding to telecommunications liberalization was assumed by consumer organizations.⁸⁷

Arts and culture organizations in Canada, like media activists in the United States, are confronted to the deregulation of communication technologies that, precisely because of their convergence, are becoming increasingly essential to

⁸⁴Napoli, “Public Interest Media Activism and Advocacy as a Social Movement,” 31.

⁸⁵Mueller, *Reinventing Media Activism*.

⁸⁶Ibid., 56.

⁸⁷Ibid., 57.

their work. For arts and culture organizations, the integration of new ICTs in their work is happening at both the level of the work of the members they represent and in their activities as arts organizations.

The websites of arts organizations, for example, have information on their mandate, membership, their target audience, their events, their organizational structure, news items, publications, policy commentary, and the accomplishments of their members. Here organizations explain how they create, represent, train, or diffuse, be it through advocacy/lobbying, workshops, research, publications, events, mentoring, and networking activities. Not only are these websites a helpful source of information, they are the site of and a complement to a wide range of these organizations' activities: crowd-sourced funding, social media, event publishing and networking, ticketing, membership and list management, video and audio streaming and download, document sharing, discussion forums and email groups, donations, sales, news, petitions, teleconferencing, research, grant and advocacy/ policy hearing submissions and journal publishing.⁸⁸ The emerging, hybrid kind of arts organization is part research laboratory, part art-making studio. In turn government institutions' funding and cultural policy adapt to these new forms.⁸⁹

Furthermore, artist's practices that respond to and integrate new technology can change the work of art and the practice of enjoying and interacting with artworks. The use that artists as artists have made of new media technologies and their inclusion of the agency of technological objects in their artistic practice are certainly valuable contributions that "blur the boundaries" between technology and art.⁹⁰ Artists' interpretations can transform the way

⁸⁸Thomson, Purcell, and Rainie, *Arts Organizations and Digital Technologies*. My own review of these websites and organizations' activities finds arts and culture organizations have more work to do and new activities because they began maintaining websites and that it is possible that the arts and culture organization has changed in part because it is now expected to integrate online activities in its work.

⁸⁹ Fourmentaux, "Governing Artistic Innovation."

⁹⁰Huws, "Nature, Technology and Art"; Fourmentaux, "Faire Œuvre Commune. Dynamiques D'attribution et de Valorisation Des Coproductions En Art Numérique"; Fourmentaux, "Governing Artistic Innovation"; Fourmentaux, "Internet Artworks, Artists and Computer Programmers"; Blais and Ippolito, *At the Edge of Art*.

technology is perceived and used or involved in our lives. Naim June Paik's "information superhighway", a metaphorical concept which was later re-appropriated by Gore and Clinton,⁹¹ illustrates this well. Arts and culture organizations may be more attuned to the contingencies of technological designs, while instrumental accounts are not equipped to be as critical of the agency dynamics between "user" and "tool". We reserve a more in-depth exploration of this problem for the fourth and concluding chapter.

The arrival of new technologies into the market as well as the consolidation of broadcasting and telecommunication service companies that mirrored the converged functions of these ICTs do not merely transform the work of arts organizations and their members. The cultural and communication policies that underpin the cultural sector also change in response to these new practices, technologies and ownership structures. To pursue their arts advocacy work cultural organizations must adapt their strategies when they participate in formal policy-making forums or shape ICTs through their own practices.

To participate more effectively in policy-making these organizations can expand their vocabulary and knowledge to include political economy issues. Typically, telecommunication policy regulates competition, interconnection or the compatibility and line-sharing of various service providers; pricing, foreign ownership, the convergence of markets, spectrum management, accessibility and the building of network infrastructure.⁹² Cultural organizations can also work to expand the way in which telecommunication policy is currently framed by institutions. To demand the inclusion of cultural organizations in telecommunication policy matters reflects Winseck's sentiment in a "Social History of Canadian Telecommunications", where he denounces the regulatory tendency to "collapse all [telecommunication matters] discussions into the

⁹¹Inkinen, "The Internet, 'Data Highways' and the Information Society. A Comment on the Rhetoric of the Electronic Sublime," 252.

⁹²Government of Canada, "Canadian Telecommunications Policy Review - Discussion Paper"; Wagman and Urquhart, *Cultural Industries. Ca*, chap. Telecommunications: Plus ça change, plus c'est la même chose?.

categories of economic growth and technological innovation, and lately, competitiveness, without considering the implications of regulatory policy in terms of equity, public life and democratic practices.”⁹³ While economic growth and technological innovation were central reasons for the deregulation of telecommunication and new media at the CRTC, arts organizations can clarify that telecommunication infrastructure is also a force for the production and promotion of culture, which necessarily generates links between the policies that shape ICTs and culture. de Beer argues for example that Canadian regulators should acknowledge that telecommunication policy has an influence on “creativity and culture”:

Section 7 of the Telecommunications Act already spells out the fact that “telecommunications performs an essential role in the maintenance of Canada’s identity.” Given the dramatic technological convergence, economic developments and social changes we have witnessed recently, it is no stretch at all for the CRTC to begin connecting this telecommunications objective to the principles underpinning the broadcasting system and more generally to the commission’s overall mandate.⁹⁴

Instead of finding convergence to be a reason for the deregulation of telecommunication infrastructure, de Beer gives several specific examples of how telecommunication and broadcasting service companies can impede the function of this infrastructure as a part of Canadian culture. While he is orienting his critique toward the regulator, its interpretation and creation of policy, this project chooses to focus on arts and culture organizations as actors that transform media and communications policy. In the context of the Canadian media-reform movement of the 1990s and beyond, following the period of liberalization, regulatory hearings began hosting new stakeholders who aptly saw that convergence increased their claim to policies with which they had not dealt with before.

⁹³Winseck, “Social History of Canadian Telecommunications.”

⁹⁴de Beer, “Network Neutrality in the Great White North (and Its Impact on Canadian Culture),” 16.

In the Canadian context, Lorimer et. al. identify the 1998 CRTC public hearings on Canadian content as a significant moment of opening for the regulatory process. Shade chooses a slightly earlier CRTC hearing – on convergence, in 1995, along with the Information Highway Advisory Council or IHAC- as “departing from its usual tradition”: “the CRTC embarked upon its week-long hearing with public interest groups interventions – many spontaneously created with volunteer pluck – rather than industry heavy-weights.”⁹⁵ In 1999, the first hearing on New Media was announced as both under both the CRTC's Telecommunications and Broadcasting divisions. The work of Leslie Shade contextualizes the emergence of the Canadian media-reform movement and “provides insight into particular policy moments in the US and Canada, from the mid-1990s to the present, that catalyzed activism around access, equity, ownership, diversity, content, control, and the governance of communication resources.”⁹⁶ Shade notes that “In Canada, various public-interest groups are becoming involved (...) but it remains unclear what particular facet of this issue will rally Canadians to the cause.”⁹⁷ The question of to what extent arts and culture organizations could contribute to the larger media reform movement and bring into focus an aspect of the issue that would rally Canadians can be answered in part by Hackett and Anderson's *Revitalizing Media Reform*.

Their research surveys media policy and media reform, and finds public or civil advocacy organizations that could be said to be part of a media reform movement in Canada: “[t]he data confirm that independent media, arts, and culture groups, and trade unions, particularly those representing media and cultural workers, are core advocates for democratic communications.”⁹⁸ Hackett and Anderson explain that their project focuses “on media reform (defined by its intention to achieve institutional change of existing media) as a subset of the

⁹⁵Shade, “Media Reform in the United States and Canada,” 157.

⁹⁶Ibid., 147

⁹⁷Shade, “States and Canada.”: “the Public Interest Advocacy Centre (PIAC), the Canadian Internet Policy and Public Interest Clinic (CIPPIC), the Electronic Frontier Foundation (EFF), and others”

⁹⁸Anderson and Hackett, *Revitalizing a Media Reform Movement in Canada*, 35.

larger field of media democratization” and “on policy-oriented advocacy groups, not the entire media democracy movement.”⁹⁹ Their project was undertaken in collaboration with OpenMedia.ca, an active internet and communication policy advocacy group that has greatly contributed to informing and mobilizing the Canadian public around net neutrality, usage based billing, and internet privacy. Out of the 57 NGOs that responded to the survey, 8 responses were from the “Arts/culture” sector, coming in second place to self-identified “Media” organizations.¹⁰⁰ 75% of the Arts/Culture sector respondents identified themselves as having participated in media campaigns before, and they answered they were likely to engage in media campaigns in the future with a score of 3.75 on 5 points: “Tables 2 and 3 confirm the importance of independent media and Arts/culture groups for media reform coalitions, but they also suggest that trade unions and human rights advocates are “high percentage” prospects”. Hackett and Anderson’s survey responses from NGOs¹⁰¹ help define and contextualize what is at stake for arts and culture organizations when engaging with communication policy at the level of the government, although it is not appropriate to assume they are adequately represented by the full breadth of the responding NGOs that build the survey’s results. Arts and culture organizations have a lot in common with media policy advocacy organizations, but their fundamental reasons for engaging in policy advocacy are specific to the work of cultural production and practice.¹⁰² This can work in favour of the movement. As has been noted by Shade in her review of media policy reform advocacy in North America, different kinds of organizations have much to gain from coalition-building and collaborating with existing media democratization advocacy organizations, as well as from relating the broader goals of media-reform with various areas of

⁹⁹Ibid., 8.

¹⁰⁰Ibid., 14.

¹⁰¹ The top challenges for the overall NGO pool of respondents constituted in, with a score of 10 NGOs responding with this answer, “changes in the mediascape; communications policy, regulation”. The other two highest mentioned obstacles were “lack of funding” and lack of other resources which included “technology”. “Changes in the mediascape” as a challenge was closely followed by “lack of influence with government” and “lack of visibility”.

¹⁰²Anderson and Hackett, *Revitalizing a Media Reform Movement in Canada*, 23.

public and private life. Shade makes the point that coalition building between different kinds of advocacy groups and locating allies in non-media centred enterprises (such as healthcare organizations) can strengthen the media reform movement as a whole.¹⁰³

As we have seen, cultural organizations, cultural industry representative organizations in particular, have had a strong presence in the history of Canadian cultural and communication policy-making and have established and sustained some important values and principles within the policy culture. The history of different kinds of engagement between cultural organizations and media policy in Canada shows that the struggle for media reform continues, often on similar grounds, despite of or inspired by new technological advances and transformed means. Ownership concentration, Canadian content, diversity, accessibility and quality in local and national media, and the subsidizing of critical carriage infrastructure as well as the funding of Canadian artists have all been issues on the table for decades. Furthermore, there is a good case for defending arts and culture organizations as allies in the broader North-American media reform movement.

Media policy reform from the perspective of arts and culture organizations can strengthen and diversify the movement by locating stakes that are of particular importance to art organizations, cultural institutions and the cultural industries and mobilize their members and audiences in ways that speak to them. These organizations can also broaden communication policy discourse and decision-making processes to better render the complexities of the Canadian communication environment and work past existing framing of communication policy built on economic and innovation goals. While reform at the level of intellectual property, cultural funding, and the protection and promotion of cultural content are valid loci for advocacy resources, certain changes in the Canadian communications environment have motivated organizations of all kinds to also stake their claims to infrastructure policy decisions and to engage with

¹⁰³Shade, "Media Reform in the United States and Canada."

technology and internet governance differently. Most importantly, the transformation in focus that recently occurred within some cultural organizations and that extended their advocacy strategies to telecommunication policy matters can contribute to a bigger project of de-legitimizing the isolation of policy making on technology like the internet as a technical and economic matter with the service industry as its primary stakeholder.

If some recent Canadian research studies on the arts and culture sector focus on “the impact of emerging digital technologies” and “the impact of new technology on the arts” in a way that “seems strangely passive, talking the perspective of a target, rather than that of a proactive partner in shaping and inspiring the form digital technology takes in society,”¹⁰⁴ some arts and culture organizations say the contrary. In a memo to the Industry Canada consultation on Canada's digital economy strategy in 2010, the arts-service organization Réseau des Centres d'Artistes Autogérés du Québec (RCAAQ) argued that cultural organizations have a role in “l'implémentation des technologies numériques au même titre que les entreprises privées ou gouvernementales.”¹⁰⁵ This role is already shaping up through the implementation of internet technologies and applications within their work and the work of the members they represent. Instead of reacting passively to technological innovations these organizations include themselves in the design and implementation process of Canadian ICTs when they take part in public hearings at the Canadian Radio-television and Telecommunications Commission.

In the next two chapters we will show how these arts and culture organizations take up internet governance issues at these hearings and articulate the specific ways in which the practices of their sector are transformed by ICTs and the policies that shape them. While these organizations have been concerned with media policy that regulates broadcasters as well as cultural policies that

¹⁰⁴Stratford Institute for Digital Media and Wilson, *Reflections -The Stratford Report 2012 -Arts and Culture and the Digital Crossroads*, 18.

¹⁰⁵Regroupement des centres d'artistes autogérés du Québec, “Accroître L'avantage Artistique Du Canada Par Le Numérique.”

encourage and sustain the production, dissemination and accessibility of art and cultural products, their focus has largely been on “content” issues. The second chapter looks at the implications of this tendency for arts organizations when they continue to engage with communication policy, as well as to what extent some organizations worked to push past the “content” set of issues.

Chapter 2: Content, Carriage, and Broadcasting in New Media

To establish a relationship with telecommunication infrastructure arts and culture organizations in Canada first had to assert that some internet governance issues were within the scope of their advocacy interests. The tendency in communication policy has been to position arts and culture organizations vis a vis technological infrastructures through a “content” frame. This chapter will explain what is meant by “content” and “carriage” issues, after which it will examine how some new developments in the engagement of arts organizations with the Canadian Radio-television and Telecommunications Commission in 2009 are framed in this context. This division between content and carriage clarifies the extent to which arts and culture organizations have taken up a new set of issues and technologies that are usually delegated to other sectors and actors. In the comments they submitted to the *Broadcasting in New Media* hearing the cultural sector’s associations address “content” whilst simultaneously gaining ground on “carriage” issues. This division also helps define some principles in the broader policy advocacy discourse on “net neutrality”.

First, “content” can be defined as the result of cultural or creative work, independently of whether this work is commodified. “Carriage” refers to the movement of content from a sender to one or more receivers; it is the act of distributing or disseminating a cultural work. The division between content and carriage has traditionally organized the role of various actors as well as their perceived interests in and their relationship to communication technology in Canadian media and cultural policy. In the case of the cultural sector, the role of artists and of their representative organizations has mainly been structured by the production of cultural content, ensuring that this content is available and accessible for Canadians to enjoy, and establishing an environment that sustains a diversity of practices and messages. In other words, what affects the message – copyright, diversity, agenda setting, access and funding for the production of

content – has been the purview of the cultural sector and its organizations. Meanwhile, carriage issues have typically been the domain of the telecommunications industry: the owners and operators of the technologies that carry the content be it via radio, wireless and wireline telephone, internet or television. The technical and regulatory details concerning carriage have consistently been the business of telecommunication service providers, not cultural organizations.

This binary is taken up and subsequently reinforced through communication policy that has effectively separated the domains of content and carriage legislatively into the *Broadcasting Act* (1991) and *Telecommunications Act* (1993). In practice the roles of telecommunication and broadcasting companies have become increasingly converged. Several broadcasters in Canada have merged with telecommunication service providers and become vertically integrated conglomerates. When different communication policies are debated in hearings or addressed by arts organizations the role of content producers continues to be opposed to that of corporations that own broadcasting and telecommunication networks. In reality the internet and ICTs are not media purposed exclusively for making and carrying cultural content: they have multiple capabilities and uses. Telecommunication networks and applications that use the internet can converge the distinct functions of several communication media into one. The owners, operators and users of the internet are converging as well and hold multiple roles depending on what they are doing. The practices of cultural organizations and their members, in turn, begin to expand beyond the mere production of content. For these technological, ownership and practical reasons it is increasingly difficult to maintain a separation between the domain of telecommunication technology and regulation, and the domain of broadcasting and content regulation.

We have seen in the previous chapter's overview of the history of communication and cultural policy advocacy on behalf of Canadian arts and culture organizations that their interest in these policies is often contained to what

may have impacts on the production and distribution of their work as cultural content. These groups give less regard to the characteristics of the technological object and to how the infrastructure carries the content. The cumulated effect of the convergence of carriage and content at the technological and ownership levels on the cultural sector has motivated some organizations to address carriage issues. Organizations find that the funding and “shelf space” they obtain from broadcasters (for television, radio and internet production), issues that fall within their familiar “content” advocacy concerns, are insufficient to contend with the consequences of the technical operations applied by telecommunication service providers on their networks or with the wider range of practices ICTs make possible for them.

While art and culture organizations have often been advocates for access to content distribution media, and continue to do this in their internet and new media broadcasting policy advocacy, the cultural practices and activities of these organizations and their members make use of the internet for a variety of activities other than making and distributing content, and these practices are also impacted by the characteristics of carriage infrastructure. As the debate between the wide range of stakeholders goes on, it is evident that the internet is not a *fixed medium*, closed and stabilized into a set array of purposes, functions and uses. It is also an object that inspires and acts with cultural producers and arts organizations, reconfiguring the meaning of “content”, new media and cultural production, as well as the roles of those who engage with it. While this fundamental contingency of telecommunication technology and hence its potential for innovation constituted part of the rationale for the deregulation of telecommunication services for the CRTC,¹⁰⁶ for arts organizations it justifies their demand to be included in policy decision-making on internet governance issues. While in some respects the division between content and carriage has fallen, in others it has not. Decisions concerning the technical functioning and

¹⁰⁶“Current Publications: Information and Communications: Canadian Broadcasting Policy (2011-39-E).”

possible applications of telecommunication infrastructure still mostly fall within the purview of telecommunication service providers, supporting policy which prioritizes the interests of these stakeholders.

Seeing that they were left out and disadvantaged by this persistent rationalization of technological decision-making that separates content issues from carriage decisions, arts and culture organizations engaged with telecommunication policies when they participated at two CRTC policy hearings in 2009: *Broadcasting in New Media* and the *Review of the Internet Traffic Management Practices of Internet Service Providers*. Many internet governance issues of concern to these organizations were handled as content matters. These groups adhered to this tendency at the New Media proceeding by demanding of the government continued support for Canadian culture through content regulations, television industry license requirements and funding. However, at this hearing carriage issues were added to the usually content-centric advocacy agenda: some organizations argued that what they fight to obtain through cultural policy and new media broadcasting policy may be neutralized by other policies that regulate the function, design and operation of telecommunication infrastructure. They demonstrated how the internet transforms the practices of the cultural sector in a way that makes it impossible for them to continue to consider “carriage” or infrastructure policy separately from, and at the expense of, content production and representation policy. Hence implementation and design, which determine a great deal of the potential array of functions and uses of telecommunication infrastructure and the internet, became a focal point of interest for the cultural sector.

This second chapter argues that these organizations began acknowledging and demonstrating specifically how carriage policies affect their work during the first hearing and proved that there was significant overlap between the content policies at issue in the first hearing and the carriage policies at issue in the second. The third chapter then discusses how they fully articulated this new advocacy issue and directly addressed the technical characteristics of

telecommunication infrastructure during the second hearing. This exciting moment marks a shift when a technological object no longer exists as technical and abstract but is shown to belong squarely in the daily work of this group of stakeholders. This characterizes a change in the way internet issues were framed as related to the cultural sector and justified their being considered as stakeholders of telecommunication policy outcomes.

Beginning in the 1990s, the government has held a series of hearings on “new” media and the internet. In 1999 the CRTC “concluded its public consultation under both the *Broadcasting Act* and the *Telecommunications Act*, regarding the range of communications and information services referred to as “new media”.” As we have seen in the first chapter, the mid to late 1990s were noted by scholars as years when the Commission's proceedings won the attention of stakeholders different from the usual participants - representatives from the telecommunication and broadcasting industry. The first day of the very first hearing on new media, in 1998, Chairperson David Colville welcomed the room with this compelling statement:

I probably should also note before we get started here that we are probably going to see a number of parties -- well, I know we are going to see a number of parties who haven't participated in our proceedings before. I want to assure everybody that what we are trying to do is better understand parties' positions and the issues surrounding this.¹⁰⁷

This was a moment at which the table seemed to be accommodating newcomers. This first New Media hearing saw a number of different arts and culture organizations, as well as new media art associations, participate. Several continued to be advocates at subsequent hearings and CRTC activities. These include the 2009 New Media and ITMP hearings, fact-finding exercises on over-the-top or OTT video services in 2011, hearings on vertical integration and on foreign ownership, a 2012 hearing that considered a merger between Bell and Astral and in gathering data on new media in general, an outcome of the 2009

¹⁰⁷Gouvernement of Canada, *Public Hearing Examining New Media*.

New Media decision.¹⁰⁸ Eleven years after the 1998 hearing, over 20 arts and culture organizations appeared on the agenda at the *Broadcasting in New Media* hearings that took place from February to March 2009, while many more submitted comment documents as early as December 2008. In comparison, at the ITMP consultation, held from January to July of 2009, three cultural organizations gave presentations at the hearing and 10 submitted comments.

Throughout their presentations and comments to both hearings in 2009, arts and culture organizations repeatedly mentioned the unusual or surprising nature of their presence and the somewhat “new” quality of their advocacy concerns. Some organizations declared at the outset that their lack of technical expertise restricted their engagement with specific issues. For example, the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) stated that “[o]n first blush, our interest in traffic-shaping might not be so apparent as our obvious stake in issues such as TV licence renewals or regulating broadcasting in new media.”¹⁰⁹ These groups “are not here to give you technological analysis or detailed solutions. We are not going to talk about the details of deep packet inspection.”¹¹⁰ Many organizations admitted their lack of knowledge on the technical details of ITMPs. Yet, especially at the second hearing, they still argued that as content providers, they had to participate in the orientation of telecommunication policy and hence, telecommunication infrastructure, toward specific ends that the market and the technology alone were not meeting or interested in. The authoritative power invested in experts enable some technological decision-making to be deemed too risky for or out-of-bounds and closed to non-experts. This naturalizes the justification of using ITMPs to avoid compromising the whole network because of congestion, a risk too great to take, and some arts and culture organizations have internalized this discourse.

¹⁰⁸Government of Canada, “Broadcasting Regulatory Policy CRTC 2009-329 (Review of Broadcasting in New Media).”

¹⁰⁹Government of Canada, *Review of the Internet Traffic Management Practices of Internet Service Providers*, l. 2481.

¹¹⁰Association québécoise de l’Industrie du Disque, du Spectacle et de la Vidéo (ADISQ) and Drouin, “Commentaires de l’Adisq - Avis public de télécom CRTC 2008-19, 2008-19-1.”

Nonetheless, the ends to which telecommunication infrastructure could be put and the actions of the owners and operators of these networks drove these organizations to participate in policy-making on carriage issues.

Other government forums for discussing culture and the future of the internet have shown a similar tendency. In 2010 Industry Canada called for comments on Canada's "Digital Economy Strategy". Several arts and culture organizations submitted comments. Some of these organizations had previously engaged with internet policy and had called for a national digital strategy in the context of the 2009 hearings on New Media and ITMPs. Arts organizations, as well as other civil society, public interest, small business and academic groups made it clear that they have stakes in decision-making that pertains to the "direction" a digital economy can take in Canada.¹¹¹ This project chose to analyze the 2009 hearings rather than these other forums or policy moments because of the remarkable shift from content to carriage policy that arts organizations articulate in their advocacy interests at that time. The two 2009 hearings were a particularly interesting moment when "new" stakeholders started to engage with the technical characteristics of the internet at the forum of the regulator which directly decides on these very characteristics. These debates are also a part of the broader discussion on "net neutrality", which we will address in more detail in the third chapter where ITMPs are the central topic.

At both the New Media and ITMP hearings in 2009, three broad types of arts and culture organizations participated. The cultural industry - companies and cultural workers that produce what is commonly called "content", specifically, Canadian content, was represented by industry and trade associations. The

¹¹¹ Another example is when ACTRA, the Canadian Media Production Association, the Writers Guild of Canada and the Directors Guild of Canada under the designation "The Cultural Groups" appealed a 2010 decision by the Federal Court to answer "no" to a CRTC question on whether ISPs were "broadcasting undertakings" and subject to the *Broadcasting Act*. The Supreme Court also answered "no" in 2012. See Ellis, "Open Kimonos, Closed Minds: New Risks for Canada's Internet."

Canadian Film and Television Production Association (CFTPA),¹¹² the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA), the Independent Film and Television Alliance (IFTA), the Association Québécoise de l'Industrie du Disque, du Spectacle et de la Vidéo (ADISQ), the Canadian Independent Record Production Association (CIRPA), and the Canadian Music Publishers Association (CMPA) participated in the ITMP hearing. The Society of Composers, Authors and Music Publishers of Canada (SOCAN), the Canadian Recording Industry Association (CRIA), the Songwriters Association of Canada, the Writers Guild of Canada and the Directors Guild of Canada, in addition to many of the ITMP participants, were among the cultural industry representatives at the New Media hearing. Cultural producers generally were in opposition to major broadcasters and telecommunication service providers or ISPs. Their organizations are distinct from other stakeholders like media organizations, consumer organizations, media advocacy groups and citizen interest groups as well as independent ISPs.

Labour unions and collective performance rights managers like SOCAN, ACTRA, the Union des Artistes (UDA) and the Société du Droit de Reproduction des Auteurs Compositeurs et Éditeurs au Canada (SODRAC) represented the industry more broadly, while representative organizations like the hybrid trade group/art service organization the Documentary Organization of Canada (DOC) and the Alliance Québécoise des Techniciens de l'Image et du Son (AQTIS) spoke on behalf of a certain genre or trade. DOC participated in both hearings and the AQTIS took part in *Broadcasting in New Media*.

¹¹²The CFTPA states that its members are “companies [that are] significant employers of Canadian creative talent” and “engaged in the production and distribution of English-language television programs, feature films, and interactive media productions in all regions of Canada.” The CFTPA changed its name to the Canadian Media Production Association (CMPA) in 2010 in order to reflect the changing formats of the digital world, from “film and television” to “media”, its website says. The CFTPA as a cultural organization worked with the Independent Film and Television Alliance (IFTA) to present a “common message and common concerns”: “that independent producers have a vital role as content creators, innovators and creative entrepreneurs in the digital and online environments.” Canadian Radio-television and Telecommunications Commission (CRTC), *Transcript: Review of the Internet Traffic Management Practices of Internet Service Providers*, l. 2157.

Cultural institutions and art-service organizations were represented as well. As we have seen in the first chapter and will continue to notice throughout the following account of these hearings, the roles of and boundaries between types of media and cultural organizations sometimes blur as a consequence of how these actors - from technological objects to content creators – interact with each other, as well as with their institutional/symbolic and economic contexts, and with their employers or competitors who are themselves transforming into increasingly technologically converged entities. A cultural institution partly founded in reaction to technological developments, the CBC is both a public broadcaster and an employer of Canadian content creators, and it submitted comments to the ITMP hearing. The NFB, another cultural institution, participated in the New Media hearings. In addition to cultural industry representatives and cultural institutions, art-service organization the Canadian Conference of the Arts represented a wide range of cultural workers, artists and interests at both hearings. We can also note that artist's organizations that make and perform dance, theatre, visual art and other forms of artistic expression were not present in the ITMP proceeding,¹¹³ but that art-service organizations like the CCA can advocate for the interests of these domains of artistic practice.

The Broadcasting in New Media Hearing

The first 2009 New Media hearing was close in date and topic to the second ITMP hearing and shared the same institutional context. The hearings also had some participants in common. The CRTC defines new media broadcasting or broadcasting in new media as “the migration of digital broadcasting content to mobile and IP [internet protocol] distribution. New media broadcasting undertakings provide broadcasting services delivered and accessed over the Internet.”¹¹⁴ Yet the “new media” environment, arts and culture organizations

¹¹³ It is possible that individual artists represented themselves instead of through organizations, but this project focuses on organizations. All these documents and transcripts are available via the CRTC website.

¹¹⁴ “CRTC Glossary - Broadcasting in New Media.”

argued, is clearly more complex than broadcasting over the internet, in part due to the blurring of carriage and content boundaries, as was previously discussed, as well as to the resulting transformation of the work of the members of cultural organizations.

The CRTC defined the goals of the hearing as follows: “Defining broadcasting in new media,” “the significance of broadcasting in new media and its impact on the Canadian broadcasting system,” whether “incentives or regulatory measures [are] necessary or desirable for the creation and promotion of Canadian broadcasting content in new media,” if there are “issues concerning access” and “other broadcasting and public policy objectives in this proceeding including: diversity of voices, the role of public broadcasters and community broadcasters, and the accessibility of broadcasting content.”¹¹⁵ The fourth category of goals mentions net neutrality, a set of policy principles related to the division between content and carriage as well as an advocacy issue for media-reform groups, which we will define in the third chapter in the context of the ITMP hearings:

Several parties suggested that issues exist with respect to the distribution of and access to broadcasting content in new media and called on the Commission to explore fully the issue of net neutrality. The commission notes that the issue of net neutrality extends well beyond the distribution of and access to broadcasting content in new media. As such, only access issues relevant to the achievement of the broadcasting policy objectives of the Act will be explored during this proceeding.¹¹⁶

In response to this focus, arts organizations expressed their interests in several ways. They argued that funding for the creation of Canadian content, new media included, was a concern. They also argued that access to the new media or digital broadcasting system, in order for this content to be accessed and enjoyed by Canadians, was at stake. The next section summarizes their advocacy positions

¹¹⁵ Government of Canada, “ARCHIVED - Notice of Consultation and Hearing - 17 February 2009, in the National Capital Region - Canadian Broadcasting in New Media - Deadline for Submission of Comments.”

¹¹⁶ Ibid.

on funding and content access and diversity issues. The section that follows shows that organizations shift their focus to matter which cause the issues of *Broadcasting in New Media* and the ITMP hearings to overlap and hence justify their being considered together or holistically. The internet is more than New Media content and access issues to arts and culture organizations, and the overlap that was argued to exist between the two proceedings pushed the debate past application-level regulation into hardware and network management policies.

Funding

To create cultural works - songs, images, pieces of writing, websites, documentaries or television programs - the members of arts and culture organization must secure some kind of financing. At the New Media in Broadcasting hearings in February 2009, organizations encouraged the CRTC to allocate more funding for the production of culture. This, they argued, would help the regulator ensure the mandate of the Broadcasting Act of 1991 was fulfilled. At this stage, as the Director General of the Canadian Conference of the Arts Alain Pineau made known, little was “new” about new media - the matter at hand was really a discussion on a new distribution platform:

[N]ous croyons fermement qu'il est temps d'appliquer à cette nouvelle plate-forme de distribution la réglementation appropriée qui assurera que, comme les autres qui les ont précédés, les nouveaux médias contribueront pleinement à la poursuite des objectifs sociaux et culturels contenu dans la Loi sur la radiodiffusion dont vous êtes les gardiens.¹¹⁷

Pineau stated that with each new technological development, the CRTC had to establish whether it was to be regulated and how.¹¹⁸ The rationale for funding culture remained similar to previous broadcasting technologies. He defended that “undertakings established to benefit from the broadcasting system – on or off line – should contribute to that system”. Essentially, the CCA's position

¹¹⁷Canadian Conference of the Arts (CCA) and Pineau, “New Media? Same Challenges. - Broadcasting Public Notice CRTC (Notice of Consultation and Hearing) 2008-11.”

¹¹⁸ Ibid.

was that, modelled on the existing Canadian Television Fund, those who benefit from online broadcasting would contribute 3% to sustain the production of online broadcasting content. In its pre-hearing comments, the ACTRA expressed concurring views: that “the Broadcasting Act covers the delivery of programming content through the Internet and to mobile receiving devices.”¹¹⁹ As such, a possible outcome of considering Internet Service Providers (ISPs) and Wireless Service Providers as broadcast distribution undertakings includes paying a levy to a “new media production fund”. The Canadian Music Publishers Association or CMPA, like many cultural organizations at the New Media hearing, backed the levy model and rationale presented by Peter Grant, the CFTPA and ACTRA.¹²⁰ ACTRA adds that if Canada wants to compete with different kinds of professional new media, productions must be funded, and so must its public broadcaster – the CBC – so that it too may contribute to new media online. FACTOR helped broadcasters fulfil new content quotas by funding the production of Canadian music, making more music available to choose from. In the 1980s, the CMPA participated in FACTOR, and in 2009, it argued that “a new fund must be new money; not funds diverted from existing support. We would propose that the Commission consider the history of FACTOR when developing a model for a new fund.”¹²¹ By arguing for the establishment of a new fund, arts and culture organizations ask for the recognition that the work they do that integrates ICTs is often new and their additional labour must be adequately funded. This strengthens the position that new media are more than re-purposed broadcasting programming or content production distributed through digital means.

¹¹⁹Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) and Waddell, “Submission of the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) in the Matter of Notice of Public Hearing CRTC 2008-11 on Canadian Broadcasting in New Media,” para. 8.

¹²⁰ Organizations that were in favour of Peter Grant's *Reinventing the Cultural Tool Kit: Canadian Content on New Media* include the CCA (par. 27), the DOC (par.34), the CMPA (par.18) and Actra (par. 11).

¹²¹Canadian Music Publishers Association (CMPA) and Saxberg, “RE: Broadcasting Notice of Public Hearing CRTC 2008-11,” l. 18.

Beyond the question of funding or incentives, which require considering the roles and responsibilities of ISPs and new media broadcasters toward Canadian cultural producers and the *Broadcasting Act*, lies the question of content regulation. The SOCAN argues that “both incentives and regulatory measures are required to achieve the content and access objectives of the *Broadcasting Act*”, but that in the case of music, there is “ample Canadian Content music available for broadcast by New Media.”¹²² Less concerned about increasing the production of Canadian music with incentives than with “meaningful access to Canadian Content”, the SOCAN explains that “meaningful access” requires regulations: the Commission should apply “Canadian content measures” and definitions to different New Media platforms, “so that New Media broadcasting meets the objectives of the *Broadcasting Act*.” Incentive *and* regulatory measures are necessary if the CRTC wants internet technology – or at least the part of it that is labelled “New Media” - to be mobilized toward the ends of the Act.

Access to Cultural Content and Diversity

After securing funding and making work, the members of arts and culture organizations want to see their work in the Canadian media system in a way that is both accessible and competitive as it stands alongside a wide array of content available on the internet. In addition to government initiatives and programs, funding the production of cultural content depends on making profits from these works. Arts and culture organizations, and cultural industry representatives in particular, explain the impacts of the internet and new media on their ability to generate such revenue and ultimately sustain the cultural sector. The members of arts and culture organizations as content producers can make money through three activities: they can sell the rights to their productions to distributors; they

¹²²Society of Composers, Authors and Music Publishers of Canada (SOCAN) and Spurgeon, “Re: Broadcasting Public Notice CRTC PN 2008-11 SOCAN Submission on Canadian Broadcasting in New Media,” para. 20–23.

can obtain royalties when their works are broadcast, used or reproduced or they can obtain payment directly from audiences when they sell their work or otherwise find innovative means to monetize it through cultural activities. The *Broadcasting in New Media* hearing and the *Fact-Finding Exercise on Over-the-top or OTT Programming Services* (2011)¹²³ that emerged out of the 2009 New Media decision saw arts and culture organizations articulate how internet governance policies, both as they mirrored broadcasting or differed from it, had an impact on their capacity to obtain “shelf space” - space to show their work that is accessible to Canadians.

Exempt or Extend

The major rift that divided arts and culture organizations at the New Media hearing was whether to continue to exempt new media from regulation or extend broadcasting regulations like licensing requirements and Canadian content provisions to the internet. While many organizations agreed that the *Broadcasting Act's* objectives were technologically neutral, they disagreed on whether the means used to attain those objectives were technologically neutral as well.

As the CCA's document title “New Media? Same Challenges.” asserts, new media are beset with the “same challenges” as old media, and the same vigilance and protections, as well as the same desire for cultural sovereignty and quality Canadian programming, should apply. The CCA explains that throughout history the CRTC has had to decide whether a new technology was a broadcast undertaking and distributed “broadcast programming” but that the 1991 *Broadcasting Act* was “technologically neutral.” It asked the CRTC to “implement a framework for regulating undertakings that receive subscription,

¹²³“The Commission considers that Internet access to programming independent of a facility or network dedicated to its delivery (via, for example, cable or satellite) is the defining feature of what have been termed “over-the-top” services.” Government of Canada, “Results of the Fact-finding Exercise on the Over-the-top Programming Services.”

advertising and/or public funding from broadcast content, regardless of the transmission conduit that carries that content to audiences.” “Legacy broadcasting groups” are not the sole beneficiaries to consider: ISPs also benefit from broadcasting content online as it is an incentive for customers to purchase and use their internet services. As these private companies and broadcasters had different interests than that of the public good the only way to ensure the objectives of the Act were met is to regulate “CTV, Rogers, Shaw or Bell” so that they “contribute” to the Canadian broadcasting system not only by paying into a levy but also through programming decisions.¹²⁴

User-generated Content and Technologically Neutral Policy

The CCA advises against regulating small new media broadcasters and user-generated content.¹²⁵ ACTRA feels differently. ACTRA counsels the CRTC to regulate user-generated content and “leading-edge, interactive content”¹²⁶ because this falls within the definitions of broadcasting and program.¹²⁷ ACTRA goes on to discuss specific measures like putting Canadian content and Canadian services first on internet broadcasting platforms and explains the impacts and future developments of the internet as a broadcasting platform for the television industry.¹²⁸ ACTRA and others, like SOCAN and the CIRPA, argue that the definitions of “program” and “broadcasting” are “technologically neutral”¹²⁹ and

¹²⁴Canadian Conference of the Arts (CCA) and Pineau, “New Media? Same Challenges. - Broadcasting Public Notice CRTC (Notice of Consultation and Hearing) 2008-11,” para. 8–20.

¹²⁵ Ibid., para. 16, 20.

¹²⁶Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) and Waddell, “Submission of the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) in the Matter of Notice of Public Hearing CRTC 2008-11 on Canadian Broadcasting in New Media,” para. 17.

¹²⁷ Ibid., para. 12–21.

¹²⁸Waddell, Alliance of Canadian Cinema, Television and Radio, and Artists (ACTRA), “Telecom Public Notice CRTC 2008-19 Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 39–42.

¹²⁹ Ibid., para. 9.

cite the CRTC and its commissioners¹³⁰ to insist that “...future technological developments were taken into consideration when drafting our *Broadcasting Act*. It does not refer to any specific technologies. As such, all types of broadcasting fall within the Commission's mandate.”¹³¹ The SOCAN uses the *Broadcasting Act's* own principle of “technological neutrality” as one ground to not exempt new media from regulation.¹³²

Shelf-space and New Media Rights

Another argument pointed to the problems engendered by having regulated broadcasting compete with unregulated broadcasting in new media. Traditional broadcasters being under no obligation to showcase Canadian cultural content on their websites, cultural organizations expressed concern that their work would be “lost” in a sea of international, commercial and re-purposed content. The cultural industry groups also underlined the fact that terms of trade between artists and broadcasters had to be adapted to the cross-platform environment. While ACTRA noted the importance of “rights in new media”¹³³ the CMPA added that “[w]e believe that the issues surrounding new media are triangular, with three points of equal value, representing the creator, the consumer (or more accurately, the citizen) and the distributor.”¹³⁴ Explaining the interdependence of each actor in the triangle, it reminded the Commission that

¹³⁰Society of Composers, Authors and Music Publishers of Canada (SOCAN) and Spurgeon, “Re: Broadcasting Public Notice CRTC PN 2008-11 SOCAN Submission on Canadian Broadcasting in New Media,” para. 43.

¹³¹CIMA, the Canadian Independent Record Production Association (CIRPA), and Brian Chater, “Re: Broadcasting Notice of Public Hearing 2008-11 : Canadian Broadcasting in New Media,” para. 10.

¹³²Society of Composers, Authors and Music Publishers of Canada (SOCAN) and Spurgeon, “Re: Broadcasting Public Notice CRTC PN 2008-11 SOCAN Submission on Canadian Broadcasting in New Media,” para. 47.

¹³³Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) and Waddel, “Submission of the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) in the Matter of Notice of Public Hearing CRTC 2008-11 on Canadian Broadcasting in New Media,” para. 83.

¹³⁴Canadian Music Publishers Association (CMPA) and Saxberg, “RE: Broadcasting Notice of Public Hearing CRTC 2008-11,” para. 7.

“we have seen tangible evidence of the importance of creators' voices in this debate, as new media rights were big issues in the 2007 ACTRA strike and the US Writers Guild strike in 2007/2008. Broadcasters were attempting to acquire new media rights for no money or below actual value.” The suggestion seems to be that if new media broadcasting content is left unregulated, and terms of trade not adequately adapted to the digital environment, the work of Canadian actors, musicians and filmmakers will be taken for granted as a source of broadcasting revenue on online platforms. The work in turn would not be compensated in the same way as it is on traditional broadcasting platforms which are regulated. This appears doubly unjust when one considers that the work of these cultural producers has constituted an incentive for Canadians to purchase internet services and pay for bandwidth in the first place.

A Fundamentally Different Digital Environment

On the other side of the exempt or extend debate, organizations like the Documentary Organization of Canada (DOC) and the National Film Board (NFB) argued against extending broadcasting content regulation to the web, citing the need for a certain kind of innovation and an open-ended regulatory strategy rather than a translation of the traditional broadcasting system's regulations and its problems. The NFB recognizes the benefit of broadcasting content regulations and quotas, but it also believes that broadcasting regulations should not be transported to a digital environment that is fundamentally different:

For example, the regulated play lists of radio broadcasters created a world-renowned Canadian music industry. Such policy mechanisms will not be workable for the Internet.¹³⁵

The NFB has a solid foundation for feeling confident in the new media environment. In its submission the organization calls itself an innovator, a “pioneer” developer of “creation and delivery applications” as well as a “creative

¹³⁵ Perlmutter, “COMMENTS ON CANADIAN BROADCASTING IN NEW MEDIA,” para. 8.

laboratory”. Instead of modelling internet regulations after the broadcasting system, the NFB sees that niche markets and the “long tail” effect of the internet will be a new way to reach audiences. It prefers adapted incentive measures over regulation and asks for a “conducive environment”, an environment that enables and encourages this expanded role for the cultural organization and a new breadth of cultural practices for content producers that integrate ICTs. The “digitization of existing content”, a practice undertaken in large quantities by the NFB and several cultural organizations demands investment.¹³⁶ Government Film Commissioner and NFB Chairperson Tom Perlmutter adds that

Digital media collapse the former distinct moments of creation, marketing and distribution. Any new fund created for the production and promotion of Canadian content for digital media should be sufficiently forward-looking to allow for a range of content to be developed in sync with marketplace and technological development.¹³⁷

As we have seen earlier the role, name and activities of many arts organizations are changing to reflect the extent to which technology is permeating their activities. The NFB is a great example: “While NFB-produced work still gets nominated for Academy Awards, it now also wins Webbys for the NFB's foray into interactive work.”¹³⁸ It appears the NFB perceives more complex use-practices and activities online that would not benefit from being subjected to regulation designed for broadcasting content and for the network hierarchy of actors of the Canadian media system. For the agency cultural content and cultural practices can “be developed in sync” with technology and the market, a potential interdependence of culture and ICTs and a kind of innovation that is co-productive.

The DOC completes this view with the argument that while it believes new media should generally continue to be exempt from regulation, some amendments to the exemption are necessary:

¹³⁶ Ibid., para. 11.

¹³⁷ Ibid., para. 24.

¹³⁸ Urquhart, “Film and Television: A Success?,” 31.

DOC does not support the notion of licensing “new media undertakings” and we believe the exemption order of 1999 should stand. That said, DOC believes 2 key conditions should be added to the exemption order. 1) ISPs, as the main beneficiaries of increased bandwidth usage need to be levied so that they contribute financially to the creation of Canadian Content. 2) Limits need to be imposed on ISPs so that the practice of bandwidth throttling is abolished and the Internet remains a competitive environment for new entrants to the Canadian market.¹³⁹

In this statement the DOC makes it clear that ISPs and carriage technologies as digital infrastructure have a direct relationship with Canadian cultural productions and hence must not continue to be exempt from giving back to the cultural industries and wider artistic sector they benefit from. It is possible that organizations that faced each other in the exempt-or-extend debate were expressing their position vis-a-vis what the DOC called the “old” and “new” media regimes.¹⁴⁰

Old and New Regimes and the Roles of Cultural Organizations

Cultural organizations have varied levels of investment or dependence on the traditional broadcasting system or what some organizations called the “old regime”:

we urge the commission not to enact any new policies which would protect this old regime of content creation to the detriment of the new regime which is emerging online. We urge the commission to maintain and protect the ease of entry of content creators allowing them to be the broadcasters of their own content if they so desire.¹⁴¹

Organizations that were uninterested, for example, in distributing their work independently, whose members relied on the existing set of roles and relationships between themselves as content or creative professionals and broadcasters, and who were not allocating many resources to alternative cultural

¹³⁹ Christou and Documentary Organization of Canada, “Re: Broadcasting Notice of Public Hearing CRTC2008-11 Call for Comments on Canadian Broadcasting in New Media,” para. 7.

¹⁴⁰ Ibid., para. 6.

¹⁴¹ Ibid.

practices other than “content production” were generally at one end of the spectrum of arts organizations. While dependent on the “old regime”, they saw that this model could be better applied and adapted to online platforms. The group of organizations that typically held this opinion were professional trade unions.¹⁴² The overwhelming majority of cultural industry representative organizations that participated in the CRTC's New Media and ITMP hearings referred to themselves as “content producers”. Because of their self-referenced limited technical expertise and their strong identification with the role of content producer, the members of arts and culture organizations may not be in a position to imagine working in a decentralized or alternative media and communications system.

For example, the APFTQ notices that “broadcasters often become content aggregators”:

Par exemple, il peut agir autant comme diffuseur de contenu sur son propre site Web, comme intermédiaire entre le producteur de contenu et le fournisseur de services de téléphonie mobile, ou distributeur de contenu en offrant de la VSD par le biais de l'Internet.¹⁴³

Similarly, the DOC stated that “there are now only content creators (...), content enablers (those who fund the creation of content, aggregate content on websites, sell advertising for creators etc.) and consumers. And all these categories can often be interchangeable.”¹⁴⁴ As we have seen the NFB underlined its own role as an application creator and innovator, further antiquating the

¹⁴² Cultural institutions may operate at arm's length of this regime and have collaborated with alternative service providers and practice models: “The Canada Science and Technology Museums Corporation is offering high-definition access to its collection of close to a million 3D and 2D objects (...) Denise Amyot, the CEO of the CSTC, says that “using the Canarie network, experts across Canada and around the world will share interactive, 3D and high-definition video, and computer-aided designs in real time (...) this is simply not possible over the regular Internet.”” Verhaeghe, “Canarie’s Fibre Optic Cable Network Is 60,000 Times Faster Than Average Household Broadband - Techvibes.com.”

¹⁴³ Samson and Doucet, “Présentation Verbale de l’Association Des Producteurs de Films et de Télévision Du Québec (APFTQ),” 7.

¹⁴⁴ Documentary Organization of Canada and Christou, “Re: Broadcasting Notice of Public Hearing CRTC2008-11 Call for Comments on Canadian Broadcasting in New Media,” para. 18.

division between cultural creation or expression practices and diffusion, promotion, and educational activities.

New Media, Part of the Broadcasting System as a Whole

In addition to deliberating on content regulations that would apply to new media, the regulator has to measure whether extending the definition of “broadcasting” and “programs” across technological objects is the best way to uphold the objectives of the Broadcasting Act. The CRTC also has to consider whether the owners and operators of telecommunication infrastructure are “broadcast distribution undertakings” that have financial responsibilities toward the production of the content that they carry, hence recognizing that ISPs need Canadian content. Organizations like the CCA used an “empty pipes” analogy to describe this interdependence in 2006, submitted to the CRTC’s preparation of a “factual report on the future environment facing the Canadian broadcasting system,”¹⁴⁵ arguing that “The content provided by the cultural sector is critical to the development of Canada’s communications infrastructure. Without content, there would be no need for a communications infrastructure.”¹⁴⁶ The CCA reiterated this reality in its 2009 submission to the New Media hearing. The CMPA’s triangular network argument shows that network owners and broadcasters have an interdependent relationship with the cultural sector: “[w]e believe that the issues surrounding new media are triangular, with three points of equal value, representing the creator, the consumer (or more accurately, the citizen) and the distributor.”¹⁴⁷ In 1999 the CRTC had decided that “some new media services did constitute “broadcasting”” within the meaning of the Act. However, the Commission argued that “regulation of these services would not contribute in a material manner to the broadcasting policy objectives set out in

¹⁴⁵ *Broadcasting Public Notice CRTC 2006-72*

¹⁴⁶ Canadian Conference of the Arts (CCA) and Pineau, “The Future Environment of Canada’s Broadcasting System: Empty Pipes?,” para. 2.

¹⁴⁷ Canadian Music Publishers Association (CMPA) and Saxberg, “RE: Broadcasting Notice of Public Hearing CRTC 2008-11,” para. 7.

subsection 3(1) of the Act”¹⁴⁸ as internet content was complementary to traditional broadcasting – hence the exemption from regulation. The argument from cultural organizations here seems to be that ten years later the digital media environment is a considerable participant in the broadcasting system as a whole and thus has impacts on whether the cultural, linguistic, ownership, Canadian content, diversity and accessibility goals of subsection 3(1) are being met across all platforms that Canadians increasingly use to access cultural material.¹⁴⁹

Of the spectrum of opinions that were held by cultural organizations at the New Media proceeding, the DOC, the NFB, the CMPA and CRIA's positions are slightly different from most other cultural industry or trade associations. The joint presentation by Québec organizations AQTIS, ARRQ, GMMQ, SARTEC, SODRAC, SPACQ and the UDA¹⁵⁰ summarizes what they perceive as the main positions:

De leur côté, la quasi-totalité des associations représentant les diverses catégories de professionnels des secteurs de la télévision, de la radio et de la musique – auteurs, réalisateurs, interprètes, musiciens, techniciens et producteurs – font valoir des positions diamétralement opposées [to the télécommunication and broadcasting industry].¹⁵¹

This position is “diametrically opposed” because it upholds that the definitions of broadcasting and programs do apply to internet content and that New Media must not be exempted but regulated. Generally, cultural organizations have more of a consensus in favour of policy that mandates a financial contribution from online broadcasters, as well as ISPs, to the “creation et à la

¹⁴⁸ Government of Canada, “Broadcasting Regulatory Policy CRTC 2009-329.”

¹⁴⁹ Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) and Waddell, “Submission of the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) in the Matter of Notice of Public Hearing CRTC 2008-11 on Canadian Broadcasting in New Media,” para. 7.

¹⁵⁰ Alliance québécoise des Techniciens de l'Image et du Son, Association des Réalisateurs et des Réalisatrices du Québec, Guilde des Musiciens et des Musiciennes du Québec, Société des Auteurs de Radio, Télévision et Cinéma, Société du Droit de Reproduction des Auteurs Compositeurs et Éditeurs au Canada, Société professionnelle des auteurs et des compositeurs du Québec, Union des Artistes.

¹⁵¹ My translation : On their side, the near majority of the associations representing the diverse categories of television, radio and music professionals (...) hold positions that are diametrically opposed. Legault et al., “Intervention Conjointe de l’AQTIS, l’ARRQ, La GMMQ, La SARTEC, La SODRAC, La SPACQ et de l’UDA Aux Audiences Du CRTC 2008-11,” 11.

présentation de programmation canadienne, tout comme c'est le cas pour les radiodiffuseurs traditionnels.”¹⁵²

Like the NFB, the CMPA recognizes that while the values that ground broadcasting regulations are still necessary, “quotas for Canadian Content, for example, are not possible” and so “the usual approaches to regulation would have to be modified for new media.”¹⁵³ The CMPA lists some of the characteristics of the internet as a platform that make it different from broadcasting, for instance online “shelf space” being “infinite”, with “porous” borders. Lastly, the CRIA comments that

Since the issuance of the exemption orders for new media broadcasting undertaking and mobile television broadcasting undertakings, there has been exponential growth in the creation and acceptance of multi-media and digital technologies. The shift to a digital Internet Protocol environment has revolutionized the way CRIA's membership creates and distributes music.¹⁵⁴

The organization does feel the CRTC must “explore appropriate mechanisms, incentives and/or regulatory measures to ensure the prosperity of the new media industry in Canada”¹⁵⁵ but does not mention extending current Canadian content regulations or other Broadcasting measures to New Media. In this comment, there is a sense that both creation and distribution practices for the members of the Canadian Recording Industry Association have benefited from, been inspired and changed by integrating digital technologies in their work process.

Some organizations brought forth the idea that the Canadian cultural and communications environment was an “ecosystem”: in the case of Québec organizations that presented in the New Media hearings, organizations in their

¹⁵² My translation: “the creation and presentation of Canadian programming, like it is already the case for traditional broadcasters.” Ibid.

¹⁵³ Saxberg and Canadian Music Publishers Association, “RE: Broadcasting Notice of Public Hearing CRTC 2008-11,” para. 14.

¹⁵⁴ Henderson and Canadian Recording Industry Association (CRIA), “Submission Re: Broadcasting Notice of Public Hearing CRTC 2008-11 - Notice of Consultation and Hearing to Consider the Issues Pertaining to Canadian Broadcasting in New Media,” para. 7.

¹⁵⁵ Ibid., para. 11.

joint comments argued that the “proximity to the public” so vital to the Québec cultural sector was the result of an “ecology” of actors participating and intervening across platforms. Cultural actors need more than funding to sustain themselves: they need a comprehensive or holistic strategy that will ensure that what they make, in all its diversity, be seen and heard, and thus contribute to Canadian culture – so that their talents may “spill over” and “interpenetrate” across cultural platforms and practices.¹⁵⁶ Perhaps that is why the NFB argued that

Canada needs a national digital strategy that takes a coherent, integrated long-term view; a strategy that combines technology, communications, digital asset management, content production and content distribution into a whole; a strategy that aligns all the critical players (...) Broadcasting will be an essential piece of it but insufficient on its own (...) The old value chains of traditional broadcasting do not apply. Content production cannot be thought of independently of management of the distribution pipeline and demand.¹⁵⁷

As many arts and culture organizations have argued, digital media complicates the relationship between cultural producers and broadcasters to a point where a combination of telecommunication and broadcasting policies could forge new practices, new models, new relationships to technology and new freedoms for cultural producers, or risk reproducing the issues of the already fraught [point to multi-point] system (or both). The new media environment could insulate the profit made by ISPs from the work of cultural producers when Canadians use the internet to access culture, and it could create a difficult competitive environment for Canadian culture in the form of unregulated content platforms. While acknowledging the properties and functions of the internet as a representation and distribution medium, this chapter agrees with organizations that add other functions and goals for telecommunication infrastructure. These positions appear to recognize the creative impact ICTs have when integrated in their work. To maintain the agency of arts and culture organizations vis-a-vis the

¹⁵⁶ Legault et al., “Intervention Conjointe de l’AQTIS, l’ARRQ, La GMMQ, La SARTEC, La SODRAC, La SPACQ et de l’UDA Aux Audiences Du CRTC 2008-11,” 8.

¹⁵⁷Perlmutter, “COMMENTS ON CANADIAN BROADCASTING IN NEW MEDIA,” para. 4.

media for cultural practice that are ICTs, the stakeholders choose to stand for a certain independence or at the very least desire independence through alternative distribution and revenue models which require a holistic regulatory strategy that no longer separates carriage from content and recognizes the place of the digital environment as more than a complement to traditional broadcasting.

Before reviewing some of the arguments that arts and culture organizations made in favour of considering *Broadcasting in New Media* as necessarily linked to the traffic management practices of internet service providers, the next section summarizes the Commission's decision and see how it drew the line in the exemption versus extension debate and whether it preferred content regulations or incentives and funding programs.

Decision

The CRTC's conclusion on New Media and Broadcasting and the funding arts and culture – stakeholders the regulator designates as “creators” and “artist organizations” in the 2009-329 decision – was to decide against the establishment of a new or additional fund for broadcasting in new media. This was justified by the existing availability of funding from the Canadian Media Fund (CMF), and because “viable business models for broadcasting in new media” had not been demonstrated yet. The *Broadcasting Act* is the guide of the CRTC and the regulator saw no proof that new media was endangering the objectives of the Act.

On the second set of concerns for arts and culture organizations - the visibility, accessibility and diversity of Canadian creators' work on the internet - the CRTC decided to continue to exempt new media from regulation and not mandate ISPs and broadcasters to promote Canadian content online. It held the opinion that such regulations could hinder innovation. It stated that although new media were exempt from regulation, undertakings now had to “report details of their new media broadcasting activities”, which the commission hoped would

inform future decisions. Some organizations or “creator groups” like the Writers Guild of Canada (WGC) would participate in working groups on “affiliated” new media Broadcast Distribution Undertakings (BDUs). “Affiliated” new media BDUs are services of a Canadian communications company that broadcast and provide access to programming through digital media. According to the WGC, the CRTC wanted to collect information on the “revenues, programming, traffic and expenses”¹⁵⁸ of new media BDUs owned and operated by traditional broadcasters like cable and satellite companies. This aspect of the decision answered to the call by certain arts and culture organizations for better measurement of new media. Finally, the commission opted to amend the New Media Exemption Order and “prohibit new media broadcasting undertakings from conferring an undue preference on themselves or another person, of subjecting any person to undue advantage”. It also recognized that “the ownership structure within Canada's wireless industry suggests that the potential for unduly preferential treatment needs to be addressed.”¹⁵⁹ As the next chapter will show, a potential for “undue preference” exists both on the application layer of the internet between broadcasters and their platforms, as well as on the infrastructure layer between telecommunication service companies and their broadcasting content homologues. Even so, the CRTC's decisions are less significant for our purposes than the opening of the cultural sector's advocacy concerns to carriage infrastructure policies and its increased sensitivity to the importance of infrastructure for the work of cultural producers.

New Media and ITMPs: Overlap and Change

When arguing that the New Media and ITMP hearings both dealt with access issues and when bringing telecommunication specific matters to the New Media hearings, organizations like the NFB, the CBC, the CCA, the CFTPA and

¹⁵⁸Writers Guild of Canada (WGC), “Policy Matters - Current Priorities,” *Writer's Guild of Canada*.

¹⁵⁹ Government of Canada, “Broadcasting Regulatory Policy CRTC 2009-329.”

the DOC were showing awareness that the characteristics and limits of telecommunication infrastructure mattered to the cultural sector. Their vision for the internet could not be contained in or limited to the New Media hearing. Their funding and content-focused demands, they argued, could be undermined by the configuration of technology on which their communication, distribution and participatory activities depended.

In their comments to the New Media proceeding, some arts and culture organizations agreed with this characterization in their answers to Question 14. The Commission asked whether there were “practices that restrict or enhance the distribution of and access to Canadian broadcasting content delivered and accessed over the internet and through mobile devices”, to which the DOC answered, “Yes. Traffic shaping and bandwidth throttling is the greatest threat.”¹⁶⁰ CRIA answered that “unauthorized file swapping and downloading” was a practice that endangered the sustainability of the work of cultural producers. Other organizations said that traffic management and media concentration were two factors that justified their scepticism toward the “abundance” and limitless shelf-space alluded to by the CRTC in its presentation of the New Media hearing. The CCA explained: “We expect the Commission to be dealing with the limitations on New Media shelf space in the upcoming telecom traffic management hearing this June (...) If gate keepers can restrict online accessibility to New Media broadcasting content in the name of traffic management, the assumption of abundance becomes invalid.”¹⁶¹ ACTRA answers that it is

concerned about Net Neutrality and urges the Commission to take actions to ensure that all content on the Internet is treated equally (...) In an environment in which ever larger vertically integrated companies are involved in the production and distribution of content, as well as being ISPs, without rules there is a potential for a serious conflict of interest.¹⁶²

¹⁶⁰Documentary Organization of Canada and Christou, “Re: Broadcasting Notice of Public Hearing CRTC2008-11 Call for Comments on Canadian Broadcasting in New Media,” para. 51.

¹⁶¹Canadian Conference of the Arts (CCA) and Pineau, “New Media? Same Challenges. - Broadcasting Public Notice CRTC (Notice of Consultation and Hearing) 2008-11,” para. 13.

Furthermore, the CFTPA understands that some facets of ITMPs fall under the *Broadcasting Act*: their effect on the “distribution of and access to Canadian content” is the subject matter of the New Media proceeding, while other aspects of ITMPs that fall under the Telecommunication Act are discussed in the ITMP proceeding. But the CFTPA has a lot to say on convergence and even suggests that the separate *Broadcasting* and *Telecommunications* Acts are not adapted to the converged media environment:

In fact, it is perhaps no longer appropriate to speak of broadcast distribution and telecommunications as if they are separate technologies, with different functions rooted in their distinct historical backgrounds. Overlapping interest and functions suggest that what is emerging is a communications infrastructure, a multi-purpose, inter-connected information technology backbone. Moreover, the CFTPA would contend, as recently highlighted by the CRTC Chairman, that the day is quickly approaching when Canada will need one “Communications Act” that merges the Broadcasting Act and Telecommunications Act.¹⁶³

CRTC commissioner Denton's concurring opinion in the New Media decision also critiqued using the *Broadcasting Act* in the internet age. The CCA's comments in the ITMP hearing re-iterate that the division of internet governance issues into content and carriage domains no longer holds:

We believe the New Media broadcasting and traffic management hearings are directly related, because while the broadcasting hearing relates to the availability of online broadcasting content, the traffic management hearing relates to access rules governing the availability of online broadcasting content.¹⁶⁴

Finally, the DOC adds that currently “in Canada there is a virtual monopoly on the “last mile” of connectivity to the Internet. This virtual monopoly has created a severely lopsided competitive imbalance.”¹⁶⁵ As we will see, the

¹⁶²Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) and Waddell, “Submission of the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) in the Matter of Notice of Public Hearing CRTC 2008-11 on Canadian Broadcasting in New Media.”

¹⁶³The Canadian Film and Television Production Association (CFTPA), “CFTPA Submission to Broadcasting Notice of Public Hearing 2008-11: Canadian Broadcasting in New Media,” para. 23.

¹⁶⁴Canadian Conference of the Arts (CCA) and Pineau, “New Media? Same Challenges. - Broadcasting Public Notice CRTC (Notice of Consultation and Hearing) 2008-11,” para. 3.

¹⁶⁵Documentary Organization of Canada and Christou, “Re: Broadcasting Notice of Public Hearing CRTC2008-11 Call for Comments on Canadian Broadcasting in New Media,” para. 51.

ownership structure of the Canadian communication landscape is an important part of the context in which telecommunication technologies are deployed.

In this chapter, we have shown that at the New Media hearing arts organizations, in addition to defending their longstanding concerns about content production and distribution, content accessibility and a diversity of voices, began concerning themselves with new advocacy issues that pertain to carriage and the characteristics of digital infrastructure. The role and importance of telecommunication infrastructure has grown to justify a holistic approach for some organizations. For many their roles and practices, like those of traditional broadcasters, were changing. This justified the consideration of both conventional content issues and new concerns about the characteristics of carriage infrastructure and demonstrated their awareness of the possibility for a certain kind of innovation that would be taken up by the cultural sector as it increasingly integrates ICTs in its work. In the hearing that followed, on the internet traffic management practices of internet service providers, some arts organizations continued to broaden their advocacy terrain in internet governance. They found that the consequences of the convergence of “content” and “carriage” issues had to be dealt with in ways that went beyond framing the internet as a mode of distribution for cultural content. The next chapter gives an overview of this different strategy and of the new concerns of the cultural sector that took place in the second hearing, the *Review of the Internet Traffic Management of Internet Service Providers*, in 2009.

Chapter Three - Arts Organizations and the Review of the Internet Traffic

Management Practices (ITMPs) of Internet Service Providers

As content producers, arts organizations in their comments to the ITMP hearing clearly established how their work and the work of their members was directly affected by some traffic management practices and the broader principles of net neutrality. This chapter explains these principles and argues that to begin discerning the contingencies of digital infrastructure arts organizations had to appropriate a new set of issues that belong to a different “layer” of the internet, one that is fundamentally more technical and physical. Organizations had to come to grips with what ITMPs are and how they work before arguing that certain ITMPs are unacceptable for the work of the cultural sector. Technological developments have provided a rationale for the convergence of the functions of technological objects but for the merger of the companies that own and operate them as well. Traffic management technology transforms copyright issues for these stakeholders and exacerbates the fact that the separation between carriage and content does not reflect the new media and telecommunications environment. These factors combine to motivate arts and culture organizations to advocate for “net neutrality”.

Net Neutrality, Digital Infrastructure and the ITMP

Proceeding

Net neutrality is a goal, the desired result of a set of principles that are applied to the regulation and operation of telecommunication networks. Shade defines net neutrality first as the sustaining of the “end-to-end principle” or the absence of any “centralized control mechanism”¹⁶⁶ that discriminates between sources or types of content transmitted via the internet. This principle ensures that

¹⁶⁶ Barratt and Shade, “Net Neutrality,” 296.

“intelligence” or the ability to innovate is held by the end-user rather than determined by the telecommunication service provider and networking hardware. Second, based on Tim Wu's “electricity grid” metaphor, content and carriage should remain separate: “the people who own the networks do not control the content that runs over them.”¹⁶⁷ Often, the role of telecommunication service providers as “common carriers” has been brought forth by net neutrality advocates to argue for carriage providers to have a “neutral” role with regard to the content that they distribute, routing data from and to their clients as unobtrusively as possible. In return, the “neutrality” of internet service providers and their function as “common carriers” has repeatedly served to protect ISPs from the responsibility of paying royalties to music industry associations and from liability for the content contained in the packets that they carry. Not all arts organizations believe that the “neutrality” of telecommunication networks and carriers is the best strategy for the cultural sector. In fact, the Society of Composers, Authors and Music Publishers of Canada (SOCAN) was one of two opposing parties in the “highest-level judicial consideration of principles related to network neutrality in Canada.”¹⁶⁸ In the cases of SOCAN in 2004 and of the Société du Droit de Reproduction des Auteurs Compositeurs et éditeurs du Canada (SODRAC) in 2012, the Canadian courts ruled against the demands of some cultural organizations to consider ISPs as broadcasters and make them liable for the carriage of royalty-protected content.

Net neutrality has been the subject of much academic and political debate. The Documentary Organization of Canada at the New Media proceeding recognizes that net neutrality's meaning and ends are not neutral themselves: “we

¹⁶⁷ Barratt and Shade, “Net Neutrality.” In a 2011 speech following the CRTC's decision on Usage Based Billing practices, Chairman Konrad Von Finckenstein repeated that internet services “are now sold like other public utilities, such as water, gas and electricity” and that “We are convinced that Internet services are no different than other public utilities, and the vast majority of Internet users should not be asked to subsidize a small minority of heavy users.” The electricity and public utility metaphor then can be taken up as a reason to enforce controls on heavy usage that puts stress on the system as a whole, or it can be taken up to not enforce controls to ensure that all users are treated equally regardless of their activities.

¹⁶⁸ de Beer, “Network Neutrality in the Great White North (and Its Impact on Canadian Culture),” 3.

understand that this term of Net Neutrality is steeped in Libertarian notions.” They articulate their own definition of net neutrality: “content producers, whether professional or non-professional, should have fair and equal access to the Internet.”¹⁶⁹ At the ITMP hearing, ACTRA also explains that the enforcing of net neutrality principles ensures “all content transmitted through the Internet should be treated equally” and “equal access to the Internet.”¹⁷⁰ As different stakeholders appropriate them differently, no set of technical characteristics or net neutrality principles will completely reflect the cultural, democratic, or egalitarian hopes of some of these cultural organizations. Net neutrality as a result is shaped by the institutional and cultural contexts in which it is taken up as well as on what technical characteristics of digital infrastructure it transforms when it is implemented.

Part of the reason the content/carriage divide is so essential to understanding the drive for engaging with telecommunication policy from the cultural sector is that it is a major characteristic of the wider principle of “net neutrality”.¹⁷¹ While the effects of ITMPs on the work of cultural organizations were major triggers for arts organizations to begin engaging with telecommunication policies, ITMPs are also on the agenda of net neutrality advocates and public interest groups within the North-American media-reform movement. The problem of the content/carriage divide then continues to push arts organizations like the CCA to link net neutrality to the desired form the internet would take for cultural organizations. The CCA for instance finds that cultural policy and funding packages that seek to enrich Canadian cultural life may be neutralized by those operating the very network through which these organizations work:

¹⁶⁹Documentary Organization of Canada and Christou, “Re: Broadcasting Notice of Public Hearing CRTC2008-11 Call for Comments on Canadian Broadcasting in New Media,” para. 5.

¹⁷⁰Waddell, Alliance of Canadian Cinema, Television and Radio, and Artists (ACTRA), “Telecom Public Notice CRTC 2008-19 Review of the Internet Traffic Management Practices of Internet Service Providers.”

¹⁷¹ Barratt and Shade, “Net Neutrality,” 296.

We believe network neutrality rules will eliminate the risk that Canadian content providers finally receive new funding to support new, New Media broadcasting content, only to find the money disappearing into the pockets of ISPs to ensure that this new content is readily available to as many users as possible and not throttled, chocked, hindered or impaired.¹⁷²

Rather than using funding for New Media to counteract the problems and inequalities of telecommunication infrastructure for cultural content carried and accessed through online broadcasting platforms organizations bring it onto themselves to halt these problems at the source. Rather than using ICTs as they are, as if they were fixed tools with a pre-defined function, arts organizations recognize that the functions and properties of telecommunication infrastructure which have impacts on their work are themselves partly the result of decisions made at the level of telecommunication policy. In this sense, decisions on the technological object or “pipes” become relevant for these cultural organizations.

When Pipes Begin to Matter

There is a difference between advocating for access to broadcasting infrastructure and content distribution platforms at the application level of the internet and advocating for a certain kind of infrastructure with certain characteristics at the transport and hardware layers. While it is fairly easy to forget, the act we commonly refer to when we say we are “going online” most often describes engaging with and making use of a very specific set of protocols and applications that communicate on the “network of networks”¹⁷³ or internet. To access the World Wide Web, browsers like Mozilla Firefox, Google Chrome and Internet Explorer utilize different kinds of application level protocols (in this case, HTTP) than do email applications (which use SMTP) and peer-to-peer file sharing applications like BitTorrent (which have their own protocols). Before reaching the transport layer and being routed along the “pipes”, content is divided

¹⁷²Canadian Conference of the Arts (CCA) and Pineau, “Re: Review of the Internet Traffic Management Practices of Internet Service Providers, Telecom Public Notices CRTC 2008-19, -19-1, -19-2 (Ottawa, 20 November 2008) Notice of Consultation and Hearing,” para. 28.

¹⁷³ Barratt and Shade, “Net Neutrality.”

into identified envelopes called packets. The OSI (Open Systems Interconnection) model of the internet separates the networking process into 7 layers that correspond to the different functions and operations of technological objects at different points in the path of communication. The TCP/IP (Transmission Control Protocol / Internet Protocol) model has 4 layers. When trying to build a framework to determine whether traffic management techniques or practices are reasonable, for example, Jordan and Ghosh argue for the setting of a framework that starts by identifying at what layer(s) the technique operates. Their framework can be vulgarized into the following questions: “where is the technique applied?”, “who decides whether to apply it?”, and “what does it consist in - blocking or QoS (Quality of Service)?” This evaluation of what is “reasonable” is part of a broader discussion on the ends and characteristics the internet should have that has been taking place between government regulators and different interests groups, public interest groups in particular, when discussing “net neutrality”.

Review of the Internet Traffic Management Practices of Internet Service Providers

The CRTC's hearing on internet traffic management practices was held on July 6 to 13th, 2009. The CRTC listed the objectives of the public consultation process (which included an online forum) as follows:

The Commission is initiating a proceeding under the Telecommunications Act (the Act) to: (i) examine the Internet traffic management practices which have been, or may be, adopted by ISPs; and (ii) pronounce on whether such practices are consistent with the Act, and whether any measures are required to ensure that such practices are in accordance with the Act.¹⁷⁴

¹⁷⁴Government of Canada and Stoddart, “Submission of the Office of the Privacy Commissioner of Canada to the Canadian Radio-television and Telecommunication Commission (CRTC): Re: Telecom Public Notice CRTC 2008-19 - Review of the Internet Traffic Management Practices of Internet Service Providers; CRTC Reference: 8646-C12-200815400.”

Canadians increasingly use the internet, and the resulting “growth in Internet traffic” causes ISPs to “adopt” ITMPs to “address possible congestion.”¹⁷⁵ Some kinds of ITMPs have “raised concerns”, the CRTC stated, meaning that, for example in the United States and in Canada over the preceding two years, the kinds of control that carriers can impose through ITMPs on the data that flows through their networks has worried different categories of users for many reasons.¹⁷⁶

Since this was a hearing held under the *Telecommunications Act*, cultural organizations often referred back to sections 7, 27 and 36 of this Act and compared the objectives of the Act with the effects of ITMPs. Section 7 states the objectives of Canadian telecommunication policy and the purposes to which the telecommunication system should be held. Section 27 explains the different characteristics of a “just and reasonable” telecommunication service, meaning that carriers cannot exercise undue preference or unjust discrimination over the kind of or provenance of the content data that they carry. Section 36 determines that “a Canadian carrier shall not control the content or influence the meaning or purpose of telecommunications carried by it for the public.”¹⁷⁷ To better understand these provisions of the Act, this next section briefly draws out how one cultural industry representative organization - the CFTPA - explains how the traffic management practices of ISPs go against portions of the Act.

Section 7's objectives the CFTPA argued become ever more important now that the internet serves as a means to distribute content. Section 7 states “It is

¹⁷⁵ “...2. The growth in Internet traffic is being cited as a main reason why some Internet service providers (ISPs) are adopting Internet traffic management practices to address possible congestion in their networks. Traffic management practices may take many forms and approaches including using technologies to alter the flow of traffic or new business models. ISPs use many different technologies to offer high-speed Internet services, including digital subscriber lines (DSL), wireless, cable, and satellite, which may affect which traffic management practices are used. 3. The use of certain Internet traffic management practices has raised concerns in Canada and in other jurisdictions.”

¹⁷⁶ “In 2007, Comcast started using reset packets to terminate selected peer-to-peer connections (Comcast Corporation, 2008).” Scott Jordan and Arijit Ghosh, “A Framework for Classification of Traffic Management Practices as Reasonable or Unreasonable,” *ACM Transactions on Internet Technology (TOIT)* 10, no. 3 (2010): 2.

¹⁷⁷ Branch, “Consolidated Federal Laws of Canada, Telecommunications Act.”

hereby affirmed that telecommunications performs an essential role in the maintenance of Canada's identity and sovereignty [.]” For the CFTPA, these goals are served by quality access to the internet and the availability of Canadian content on the internet. The CFTPA explains, as many other organizations do, that if specific applications are targeted by ITMPs, this deters technological innovation and the development of telecommunication services.¹⁷⁸ If ISPs continue to adopt a strategy of managing traffic instead of deploying and building infrastructure, which would be conducive to new and innovative internet services, Canada will lag behind other countries and hence not observe Section 7 (a) which stipulates telecommunication services should “facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions.”¹⁷⁹

On the other two sections, the CFTPA added that “discriminatory throttling targeting certain applications or protocols and not others threatens the internet as an open-access platform for innovation and distribution, and may be inconsistent with sections 36 and 27 of the Telecommunications Act.” Regarding Section 27(2), the CFTPA submits that application-specific throttling “unjustly discriminates against content and application providers that rely on P2P” and “confers an undue preference” on non P2P content distribution methods, regardless of whether they are placing more stress on the network. Video streaming for instance is “very bandwidth intensive.”¹⁸⁰ “Packet forging” (and dropping) does change the meaning of content distributed, if we consider that data is being replaced or omitted during its transmission. This alteration of the message directly contravenes Section 36 which states that “[e]xcept where the Commission approves otherwise, a Canadian carrier shall not control the content

¹⁷⁸ Ibid., para. 59.

¹⁷⁹ Government of Canada, *Telecommunications Act* (S.C. 1993, c. 38).

¹⁸⁰ Canadian Film and Television Production Association (CFTPA) and Mayson, “Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 39–40.

or influence the meaning or purpose of telecommunications carried by it for the public”, the CFTPA argues.¹⁸¹

The CFTPA, IFTA and ACTRA gave oral comments at this hearing. The arts and culture organizations that participated either by presenting at the hearing or submitting comments represented companies and individuals in the “cultural industries” including the music industry, the music recording, performance and video industry (ADISQ) and the film and television industry.¹⁸² Within “the broader film production industry”, the Documentary Organization of Canada represents “directors, producers and craftspeople” as individuals or as companies in the independent documentary sector.¹⁸³ The CCA continues to be an “umbrella organization” that represented a wide array of cultural professionals and practices.

The Context of Media Concentration

Arts and culture organizations, as they were at the New Media proceeding, were concerned with access to telecommunication infrastructure and the internet as a distribution and dissemination medium. ITMPs are an issue for these organizations partly because of the context in which they emerged and in which actors in the Canadian media environment implemented them. Cultural organizations have often been concerned with telecommunication and

¹⁸¹Canadian Film and Television Production Association and Bolen, “Final Comments - Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 70–71, 108. Bolen and the CFTPA's final comments explain in more detail: “In our initial comments regarding section 36 of the Act, the CFTPA specifically focussed on the practice of “packet forging”, whereby an ISP creates data packets that interfere with communication between peers in a P2P network. While these packets are actually being generated by an ISP, they are configured to appear as if they are coming from another peer in the network.” For more on how ISPs can alter and drop packets, see Koumartzis and Veglis, “Internet Regulation.”

¹⁸²CMPA is a music industry association, representing publishers, as is CIRPA, which has member companies across “every aspect of the music business”, and CFTPA and IFTA also represent companies which “employ creative talent”.

¹⁸³Documentary Organization of Canada and Christou, “Telecom Notice of Public Consultation and Hearing CRTC 2008-19 Call for Comments on Internet Traffic Management Practices of Internet Service Providers.”

broadcasting ownership issues like mergers, media consolidation, vertical integration and convergence. In this case, whether cultural organizations are advocating on broadcasting or telecommunication policy issues they are often faced with the same players: corporations which have one hand in content production and distribution across platforms and the other in telecommunication service provision. The high level of concentration of the Canadian communication and media system is part of the reason many content producers argue they want to distribute their work themselves by online means.

Telecommunication and broadcasting conglomerates being few and very powerful in Canada, the cultural sector saw the potential for an increase in gatekeeping practices and hence a reduction in the diversity of cultural content. Simply put, with a limited range of broadcasters available (many of them adhering to the minimum possible amount of required Canadian content) cultural producers have “less doors to knock on”¹⁸⁴when trying to sell their television or film programming. For instance, the CFTPA notes that the increased appetite for content caused by new ICTs that emerged in the 1990s did not necessarily add up to more diversity or opportunities for Canadian cultural producers:

In the early 1990s, a combination of digital compression technology and the provision of fibre optic cable lead to an explosion of new Canadian programming services, and a concordant increase in the amount and range of Canadian programming. However, as the CFTPA has advised the Commission in numerous Broadcasting Act proceedings, the broadcaster consolidation of recent years has dramatically reduced the number of doors that independent producers can knock on to develop new projects (...) One of the unavoidable results of consolidation has therefore been that large corporate broadcast groups have once again become powerful gatekeepers that exercise enormous influence over who gets to create, and who gets to watch, Canadian programming.¹⁸⁵

¹⁸⁴Independent Film & Television Alliance (IFTA) and Cleary, “Re: Public Notice 2008-19 - Review of the Internet Traffic Management Practices of Internet Service Providers. Reference No. 8646-C12-200815400,” para. 14; Canadian Film and Television Production Association (CFTPA) and Mayson, “Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 47.

¹⁸⁵Canadian Film and Television Production Association (CFTPA) and Mayson, “Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 46.

Hence despite or thanks to new technological developments concentration continues to have impacts on the cultural sector. Canadian arts and culture organizations have advocated for ownership diversity and mandatory Canadian content regulations for decades in order to defend against agenda setting and gatekeeping by broadcasters in the media system. Internet Service Providers, especially ISPs that are vertically integrated with one of Canada's large media conglomerates, are feasibly a new gatekeeper.¹⁸⁶ As Hintz remarks, “the transition from analogue to digital broadcasting may introduce a new set of private sector gatekeepers that may be able to make decisions over inclusion and exclusion of broadcasters on a digital broadcast platform.”¹⁸⁷ While the majority of arts and culture organizations at the New Media hearing did express concern about the possibility of new gatekeeping practices on the part of new media broadcasters, some of them also saw the potential for gatekeeping extended to telecommunication service providers because of their ability to implement network management practices and favour their affiliated broadcasters and content producers.

Empirical research by Winseck on the state of the Canadian media system has found that “concentration is no less relevant in the “digital media” age of the twenty-first century than it was during the industrial media era of centuries past.”¹⁸⁸ Paré also shows that concentration in the telecommunication sector is as strong as ever.¹⁸⁹ IFTA argues it is the diversity of culture that is at stake in such an environment: “Gatekeeping practices are facilitated by vertical integration, and vertical integration is one of the reasons why the Internet is such a viable alternative distribution platform in the first place.”¹⁹⁰ ACTRA also holds the

¹⁸⁶Canadian Film and Television Production Association and Bolen, “Final Comments - Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 20.

¹⁸⁷ Hintz and Milan, “Struggling for Open Information Environments.”

¹⁸⁸ Winseck, “Critical Media Research Methods: Media Ownership and Concentration,” 163.

¹⁸⁹ Paré, “Telecommunications: Plus ça Change, Plus C’est La Même Chose?”

¹⁹⁰Independent Film & Television Alliance (IFTA) and Cleary, “Re: Public Notice 2008-19 - Review of the Internet Traffic Management Practices of Internet Service Providers. Reference No. 8646-C12-200815400,” para. 5.

opinion that the threat to diversity caused by vertical integration includes the integration of ISPs.¹⁹¹

This concentration and gatekeeping problem affects cultural producers that distribute their work online both independently and through broadcasters. This is important because it underlines how both ISPs and broadcasters can apply ITMPs to make this issue worse for the cultural sector, as well as explains why some cultural producers have opted to distribute their work independently and not rely on traditional broadcasters. Wu has argued that “in an information industry the cost of monopoly must not be measured in dollars alone, but also in its effect on the economy of ideas and images, the restraint of which can ultimately amount to censorship.”¹⁹² It appears that it is exactly that kind of danger, a kind of economic and technological rationalization of the economy of ideas and images, which arts and culture organizations are seeking to circumvent when they stake their right to distribute and work independently from and without interference from telecommunication and broadcasting conglomerates.

Internet Traffic Management Practices (ITMPs) come in two forms: economic and physical. Economic ITMPs include usage based billing and data caps. These techniques manage congestion by offering service plans with different bandwidth or throughput capacities (measured in Mbits/s) and different “caps” or limits for the amount of total data downloaded (in gigabytes or GB) per month. Additional gigabytes downloaded will usually be added to a customer's bill. Some ISPs offer plans that include “free” or unaccounted downloading at off-peak hours. Similarly, the CFTPA adds that “[s]ome of these ISPs limit discriminatory traffic throttling to certain defined periods where network traffic volume is estimated to be at its peak, while others engage in discriminatory traffic throttling 24 hours a day.”¹⁹³ This creates an incentive for users to plan the time

¹⁹¹Waddell, Alliance of Canadian Cinema, Television and Radio, and Artists (ACTRA), “Telecom Public Notice CRTC 2008-19 Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 12–13.

¹⁹² Wu, *The Master Switch*, 69.

¹⁹³Canadian Film and Television Production Association (CFTPA) and Mayson, “Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of

they spend online accordingly and encourages them to displace “heavy” downloading activities, activities that stress the telecommunication network's limited capacity, to times of the day where the service provider's infrastructure is less sought out and hence can more readily accommodate them. While economic ITMPs do not exercise direct control on the data and are considered more “transparent” to the user by the CRTC because they are set within the service contract advertised and sold to consumers, they do raise the cost of use and of different kinds of use, or encourage moderation and bandwidth-rationing.¹⁹⁴

Physical ITMPs are also not “transparent” because they are hard to understand and verify by the average user. Consumers are not educated about them in a way that makes the quality of their internet services an accessible and empowered choice.¹⁹⁵ In their written and oral comments CFTPA members call for transparency and “having an informed consumer.”¹⁹⁶ IFTA's written comments repeatedly ask for ITMPs to be “transparent.”¹⁹⁷ Instead of trying to keep up with users that find ways to circumvent ITMPs through encryption and the deployment of alternative applications, the CFTPA hopes that ISPs will focus

Internet Service Providers,” para. 37.

¹⁹⁴ “Similarly, the economic Internet traffic-management practices of ISPs may influence the abilities of users to adopt new services and of content providers to create new services. It is critical that the regulatory environment allow for those innovations to take place, while balancing the needs of network operators to manage their networks and experiment with their own innovative new services.” Government of Canada, “Navigating Convergence,” 59.

¹⁹⁵ Scholars Becky Lentz and David Ellis have argued the average internet user does not possess the necessary technical knowledge to understand the internet plans they purchase nor how to verify whether they are being throttled, partly because of the language that surrounds telecommunication policy. Lentz argues that ITMP assisting technology like DPI for example is “camouflaged as a thing” in telecommunication policy discourse. Ellis, “Life on the Broadband Internet”; Lentz, “Does ‘Deep Packet Inspection’ Turn You On?”.

¹⁹⁶ Canadian Film and Television Production Association and Bolen, “Final Comments - Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 45; Canadian Radio-television and Telecommunications Commission (CRTC), *Transcript: Review of the Internet Traffic Management Practices of Internet Service Providers*, 1. 2199.

¹⁹⁷ Independent Film & Television Alliance (IFTA) and Cleary, “Re: Public Notice 2008-19 - Review of the Internet Traffic Management Practices of Internet Service Providers. Reference No. 8646-C12-200815400,” para. 4–7.

on “creating high-value services” which would “provide enormous incentives to ISPs to upgrade their infrastructure.”¹⁹⁸

It is possible that converged broadcasting and telecommunication service providers will not count the bandwidth consumed by clients viewing programming through their own platforms and hence not add it to a client’s tab, a situation Winseck argued, in the context of the CRTC’s broadcasting decision on vertical integration in 2011, was the “Netflix choke-hold” “elephant in the room.”¹⁹⁹ Supporting this idea, the CFTPA notes there is motive for telcos to unjustly discriminate against some internet applications or services. Primary ISPs like Bell consider that unregulated video over the internet services compete with their own traditional broadcasts, which the CFTPA finds is a reason to pay attention to ITMPs: “[t]he CFTPA considers it telling that the three of the largest ISPs in Canada consider the threat of online video to their traditional broadcast distribution and programming services significant enough that it warrants disclosure to investors.”²⁰⁰ It goes on to make the exact point Winseck makes when he names the Netflix choke-hold: “For example, an ISP might throttle P2P traffic carrying an online movie from a third-party streaming service, so that it can provide higher quality access to downloads from its own online video service, or higher download speeds to its own customers.”²⁰¹ David Ellis also notes that bandwidth caps and tiered service quality compromise the quality of alternative television distribution services based on the internet, such as Netflix.²⁰² If Netflix cannot be watched in high-definition by Canadians, for example, it is possible that it is at a competitive disadvantage.

¹⁹⁸Canadian Film and Television Production Association (CFTPA) and Mayson, “Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 78.

¹⁹⁹Winseck, “CRTC’s New Telecom-Media-Internet Vertical Integration Rules and Elephants in the Room.”

²⁰⁰Canadian Film and Television Production Association (CFTPA) and Mayson, “Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 65.

²⁰¹ Ibid., para. 67.

²⁰² Ellis, “Must-carry TV (4): Ottawa Disconnects from the Video Revolution | Life on the Broadband Internet.”

The CCA also questioned the CRTC's assumption that the internet is a space of "abundance" rather than of scarcity and limits. We have seen that the particular characteristics of the converged content and carriage ICTs constitute an ambivalent environment of both abundance and scarcity.²⁰³ For some cultural organizations they fear their work will be lost or under-represented alongside a sea of international content. "Scarcity" has on the other hand been a driving factor for several cultural and communication policies in Canada ever since radio was broadcast over the airwaves, the CCA continues. To claim that the internet provides "unlimited shelf-space" for cultural producers and thus solves the age-old scarcity problem is to "ignore the intermediaries who guard, limit and shape user's access to content" and "ignores their profit motives."²⁰⁴ Despite the validity of qualifying the internet as a space of "abundance" in the content sense, as there is no doubt that the internet is brimming with content and that until recently it faced a potential shortage of IP addresses, access to bandwidth has continually been qualified by service providers as limited or scarce, to the point where "heavy users" are considered bandwidth "hogs".²⁰⁵ The problem of "congestion" and scarcity was thoroughly deconstructed by arts and culture organizations like the CCA, IFTA and CFTPA, demonstrating its contingency as a concept that has justified network management practices and influenced the broader culture of regulating telecommunication infrastructure. Some cultural organizations moved on to argue that Canadian telecommunication service providers were taking the wrong strategy in the face of increased demand. Instead, ISPs should provide a

²⁰³ The fundamental "ambivalence" or uncertainty of technological objects is one aspect of an STS and ANT oriented understanding of technology. We will unfold this aspect in more detail in the concluding chapter.

²⁰⁴ Canadian Conference of the Arts (CCA) and Pineau, "Re: Review of the Internet Traffic Management Practices of Internet Service Providers, Telecom Public Notices CRTC 2008-19, -19-1, -19-2 (Ottawa, 20 November 2008) Notice of Consultation and Hearing," para. 8.

²⁰⁵ Of course, the term "hogs" is a kind of industry jargon not used exclusively by the CRTC and the industry. A Chairperson, in conversation with Fewer of the CIPPIC on July 6th during the ITMP hearing: "Secondly, one of the principles that you are advocating to us is that there shouldn't be any application-based throttling. If you do throttling, you throttle the capacity, or use other means, but don't single out a particular application because, if I understand you correctly, you may punish innocent users of that application, as well as the bandwidth hogs." Government of Canada, *Review of the Internet Traffic Management Practices of Internet Service Providers*, l. 3445.

minimum “world standard” before attempting to “drive down use” with ITMPs. CIRPA explains:

it seems to us odd that a “protected” industry such as telecommunications in Canada and their ISP business would be allowed to engaged in discriminatory pricing without guaranteeing at least an acceptable minimum level of service that is world standard, and with respect to the second issue [using the availability of illegal content to promote their services], it seems that ISP’s should at least be asked to develop compensatory funds for content creators before they are allowed to engage in price discrimination that may not disfavour a whole class of small content providers.²⁰⁶

Instead, arts and culture organizations promote the following two strategies for dealing with network congestion: ISPs should create more capacity by building onto the physical infrastructure, instead of allotting bandwidth as a scarce resource, and second, ISPs should use non-discriminatory or “protocol agnostic” traffic management practices. Partly as a result of the cost of usage-based billing and hence the cost of obtaining quality bandwidth and competitive carriage, the members of art organizations have opted to distribute, share and create engagement for their work with the help of certain applications like peer-to-peer file sharing applications, which re-distribute bandwidth use to a wide pool of users. This practice is made more difficult because of ITMPs that slow down, block or “throttle” these specific applications.

Many groups express that distributing material by online means is not only better for independent producers already working with small budgets, it can dramatically increase their audience reach and numbers. It is also a very viable option in the context of media concentration and gatekeeping taking place within the traditional broadcasting system. The power of this alternative is severely cut short by a number of factors, one of which being the undercutting of the accessibility of telecommunication infrastructure by internet traffic management practices. Part of the reason cultural organizations are in a difficult position is

²⁰⁶Canadian Independent Record Production Association (CIRPA) and McKie, “Re: Telecom Public Notice 2008-19 Review of the Internet Traffic Management Practices of Internet Service Providers.,” para. 14.

because cultural producers and independent distributors or publishers often do not have the same capacity as larger broadcasting and media corporations. For instance, consider how the ability to deploy servers is not within the reach of arts and culture organizations:

Traditional broadcasters and content distributors have access to broadband technology and can afford to set-up their own dedicated server for distributing and downloading digital content. Independent documentary filmmakers, on the other hand, tend not to possess the financial resources or technical expertise of establishing their own dedicated server for downloading.²⁰⁷

This is why indie filmmakers, such as those represented by the DOC, choose BitTorrent. The CFTPA also argues that cultural producers use BitTorrent because it lowers bandwidth costs.²⁰⁸ Advocating for an “ex-ante” rather than “ex-post” enforcement of telecommunication policy regulations makes sense in the face of this financial and material inequality. Many arts organizations contended that dealing with ITMPs through a complaint system disadvantaged organizations that had neither the time, budget nor human resources to properly defend themselves. They argued that the danger of some ITMPs for their work was so great they may not be able to recuperate their losses after having followed through with a complaint and the ISP correcting its practice. During the ITMP hearing, the Chairman said that it was already against the law to give undue preference, and wondered why additional measures like a condition of contract were going to be more effective than the law itself. The CFTPA's Dan Hawes answered that the complaint procedure, their only recourse, was costly and time-consuming for independent producers who were “just trying to survive.”²⁰⁹

²⁰⁷Documentary Organization of Canada and Christou, “Telecom Notice of Public Consultation and Hearing CRTC 2008-19 Call for Comments on Internet Traffic Management Practices of Internet Service Providers,” para. 3.

²⁰⁸Canadian Film and Television Production Association (CFTPA) and Mayson, “Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 45.

²⁰⁹Canadian Film and Television Production Association and Bolen, “Final Comments - Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 19; Government of Canada, *Review of the Internet Traffic Management Practices of Internet Service Providers*, l. 2131, 2132. At the hearing, CFTPA staff member Reynolds Mastin also explained “given the exigencies that are involved in actually filing a complaint under 27(2), particularly if, for example, you are an independent producer, and

Consequently these associations are better protected by preventative or “ex-ante” approaches. Commissioner Denton summarized this argument coming from the IFTA and the CFTPA well: it is “the problem of the disparity of resources between those who want to put stuff on the Net and the carriers who transport it and that a complaints-driven process is maybe necessary but that in engages powers of unequal weight.”²¹⁰ Therefore it is not only because of the technical practices of ISPs that arts and culture organizations are disadvantaged, but also by the way in which these practices are regulated and enforced.

In addition to the effects of the ITMPs and the complaint system through which organizations must react to these, cultural organizations argued that some ITMPs are more discriminatory against independent cultural producers than others. The physical traffic management practices listed in Heavy Reading's report “The State of the Art” are: controls that exist within the transport protocol that constitutes the base of the internet, “over-provisioning”, deep packet inspection or DPI, and “policy management” or “policy control”. Some of these techniques, such as DPI, were singled out by arts and culture organizations because in their view, their use contravened to sections 27 and 36 of the Telecommunication Act. Organizations also argued that techniques that used certain means to control and manage traffic were unacceptable in general. For instance, the CFTPA held the view that

application and protocol-specific ITMPs are inherently harmful, given that they do, in fact, “materially degrade” the ability of application and content providers, as well as end-users, to “use the Internet”. These practices are

getting that complaint resolved, that a great deal of time could elapse in the meantime, and for a number of our members, particularly emerging producers, this could have a very, very damaging impact in terms of giving them the ability to get their product to market with the speed at which they need to do so. Which is one of the reasons why we were suggesting that given the potential for reparable harm for certain kinds of content providers that are not the large Rogers of this world, that a simple right line rule imposed via a condition of service would provide that protection for those of us who are perhaps not as deep-pocketed as others in adjudicating complaints of that nature that would fall under section 27(2).”

²¹⁰ Government of Canada, *Review of the Internet Traffic Management Practices of Internet Service Providers*.

also *inherently* discriminatory, for the self-evident reason that they degrade certain protocols and applications while leaving others untouched.²¹¹

The way DPI works is indeed by identifying to which application a packet of data is destined. The number one target of DPI is peer-to-peer file sharing. The CBC understands that this kind of identification is arbitrary and harmful:

In the Corporation's view, the case of P2P demonstrates very clearly that no one can know how a new technology may be used in the long run. No one can predict the innovative ways in which a new technology may be adapted, modified, bent, twisted or origamied into something new and exciting which (almost) everyone agrees is a benefit to society. Consequently, no one should be in a position to say - "this is just a nuisance technology, it should be constrained or killed."²¹²

Discriminating against specific protocols and applications is also discriminating against certain kinds of content producers because "traditional distribution methods for documentary film are shifting, and the Internet has already become an integral component of the way documentary and independent film is distributed."²¹³ Hence those who choose or need to practice file sharing are disadvantaged and do not benefit from the same internet experience as those who do not. The next section explains how copyright infringement has emerged in both hearings as an issue that provides justification for the cultural sector's net neutrality advocacy, while also being a problem that could be handled through

²¹¹Canadian Film and Television Production Association and Bolen, "Final Comments - Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers," para. 26.

²¹²Canadian Broadcasting Corporation/Radio-Canada and Kirshenblatt, "Reply Comments Re: Review of the Internet Traffic Management Practices of Internet Service Providers, Telecom Public Notice CRTC 2008-19, Reply Comments of CBC/Radio-Canada," para. 18. Winseck has many examples: "...p2p serves many other purposes than just facilitating traffic in ill-gotten media content. To take just a few examples, the band Nine Inch Nails uses p2p to offer free downloads of their music. Akamai uses it to create 'content distribution networks' for entities like Netflix, Facebook and Amazon that run parallel to the Internet so as to relieve congestion on the telecoms carriers and ISPs networks. The CBC used it in 2008 to deliver an episode of Canada's Next Great Prime Minister via BitTorrent; the BBC still uses it for its iPlayer service. P2P also underpins ancient pre-web 1.0 Internet functions such as Internet Relay Chat, the nasty bits of 4chan, and the privacy enhancing, authoritarian-fighting Tor protocol that has been used in the "Arab Uprising" and by the hacktivist group, Anonymous, alike." Winseck, "The Anatomy of Internet Service Provider Responsibility."

²¹³Documentary Organization of Canada and Christou, "Telecom Notice of Public Consultation and Hearing CRTC 2008-19 Call for Comments on Internet Traffic Management Practices of Internet Service Providers," 1.

increased controls at the ISP end, complicating the application of net neutrality principles.

Content creators, ISPs and Copyright: a Delicate Balance

In their December 8th, 2008 comments to the New Media in Broadcasting public notice, the CMPA stated that the CRTC had no right (“no jurisdiction in either [Broadcasters rights at the Copyright Board and copyright legislation consultations]”) to regulate copyright. While the CTRC cannot regulate how rights over content are allocated some of the Commissions’ decisions have direct effects on the ability of Canadian content producers to have their intellectual property rights respected. The regulation and funding of new media content and the regulation of the management of internet traffic by ISPs can shape how ISPs handle carrying what is often copyrighted content. Consequently, the allocation of new funds for new media content production that could come from a levy on ISPs is a measure that should be considered as completely separate from the right of content producers to be paid royalties for their work:

It is of critical importance that the creation of a new fund, most likely underwritten by isp's and mobile distributors, should by no means blur or mitigate those companies' responsibilities for proper licensing and payment for content rights used. Obligations to fund Canadian content by distributors of content, and copyright payments made for the use of rights are two entirely separate issues, and should never be considered in the context of the other.²¹⁴

The argument here is that broadcasters and ISPs have two distinct sets of responsibilities towards content producers. The contribution of telecommunication service providers to a New Media fund that supports the creation of Canadian content for example does not exempt these ISPs and mobile distributors from paying royalties to content producers. Broadcasters and telecommunication service providers should contribute to funding the production

²¹⁴Canadian Music Publishers Association (CMPA) and Saxberg, “Re: Broadcasting Notice of Public Hearing CRTC 2008-19,” para. 19–20.

of Canadian content while also respecting the intellectual property rights of content creators, regardless of whether these productions were created in part thanks to the contribution of these often vertically-integrated conglomerates to existing and new funds like the Canadian Media Fund or the Bell Fund put in place by the CRTC.

Incentives for cultural production and the respect of intellectual property rights are two distinct items. Together, the ACTRA and the CMPA argued that if the CRTC decided to regulate new media, internet service providers would have to be responsible for ensuring that those who make programs available through the internet pay for the rights to those programs: “Those who provide programs through the Internet must respect and pay for program rights, and the practical arrangements will take some time to negotiate between rights-holders, programmers and ISPs.”²¹⁵

As we have seen, the new media landscape has put content creators in a position in which they have arguably much less control over their work. Some organizations stated that the rights to productions bought by broadcasters for one platform have been extended to online platforms and thereby re-purpose or recycle the work without properly honouring additional royalties to the content creators. The DOC describes its members' case in particular:

Documentary producers are increasingly required to licence new media rights to broadcasters for negligible licence fees. Broadcasters are able to use their power to license a documentary and have the producer “throw in” streaming, downloading and other new media rights as part of their license. Yet there is a direct cost to producers in giving up these rights as Internet-based distribution erodes non-theatrical and home video sales.²¹⁶

The very fact that copyright is so difficult to enforce online and that control over the content once it has been put on the internet is limited should

²¹⁵Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) and Waddell, “Submission of the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) in the Matter of Notice of Public Hearing CRTC 2008-11 on Canadian Broadcasting in New Media,,” para. 97.

²¹⁶Christou and Documentary Organization of Canada, “Re: Broadcasting Notice of Public Hearing CRTC2008-11 Call for Comments on Canadian Broadcasting in New Media,,” para. 47.

reinforce the necessity to compensate content producers for their work, as should the terms of trade between broadcasters and cultural producers adequately reflect the realities of the internet environment.

In their comments to 2008-19 on February 10th, 2009 the CMPA, representing the music industry, brings in another point that increases the complexity of the existing and potential relationship between ISPs and music publishers. While ITMPs do contravene Section 36 of the Telecommunication Act, the cause of traffic congestion and thus a reason for traffic management is also a problem for their organization: “without the huge amount of illegal content being traded, streamed and downloading, the traffic shaping problem is minimalised.”²¹⁷

On the other hand, ISPs have advertised their services in order to woo users to purchase more bandwidth and higher data caps for better downloading and streaming experiences. This means “they have built their business on the backs of content creators who have neither been compensated for the value of their work, nor protected from its unauthorized use.”²¹⁸ The CMPA adds that content creators would then have to “pay for priority service and access”²¹⁹ to be able to distribute their work. Whether this means the members of arts and culture organization's would have to ask the ISPs directly for better service or purchase a more expensive data plan²²⁰ or that filmmakers and music publishers will need to stop using cloud storage is uncertain.²²¹

²¹⁷Canadian Music Publishers Association (CMPA) and Saxberg, “Re: Broadcasting Notice of Public Hearing CRTC 2008-19,” para. 6.

²¹⁸ Ibid., para. 7.

²¹⁹ Ibid., para. 8.

²²⁰ OpenMedia.ca also defended cultural producers at CRTC. At the UBB hearing in 2011 it presented a comment by a musician who explained how economic internet traffic management practices affected him and his work: “Dear CRTC, I am an independent music producer and I depend on the internet for my livelihood. The arts, media and technology is one of the new ways for Canadian culture to thrive.(...)The focus should not be on finding ways to make the internet cost more but on finding ways to make it faster and more accessible. (...) I believe the CRTC should reverse its previous UBB rulings and allow independent ISPs to choose their own customer billing solutions.” Government of Canada, *ARCHIVED - Transcript of Proceeding - Review of Billing Practices for Wholesale Residential High Speed Access Services - Notice of Consultation CRTC 2011-77 - 12 July 2011*, l. 1501.

²²¹Mehta, “Data Caps Could Cut Artists Off from the Cloud | NAMAC.”

Precisely because they are able to apply ITMPs like DPI, the CMPA argues that ISPs are not simply carriers that provide “dumb pipes.”²²² According to the CMPA, ISPs have shown they can find out what kind of content internet users are consuming, using DPI technology to “monitor all kinds of illegal and unauthorized content”. By juxtaposing an ISP's ability to monitor the content of the traffic it carries with the fact that illegal downloading of music at a high speed poses no problem for ISPs, this organization is not far from noticing that the technologies that insert intelligence into the network could also be used to assist in either tracking down or blocking illegal downloading activities. The CIRPA clarifies this balancing act by explaining that ITMPs that need the information DPI gathers on a user's activities and a packet's content and destined application

will be used in ways which are not supportive of the domestic content producers nor even-handed in their application (...) policies that limit the consumers access to P2P sites that distribute large volumes of unauthorized content would be controversial, but we believe that it is in the interest of both ISPs and content producers to examine such alternatives carefully and act to the degree it can be determined that such content is not authorized for redistribution.²²³

ACTRA stated in its presentation at the ITMP hearing that ISPs should *not* be the ones determining whether content is legal to download:

ACTRA is not endorsing illegal file-sharing. We need fair copyright laws that ensure that creators have control and are compensated for their work. And there need to be complaint-based mechanisms for rights-holders who feel that their work is being shared without compensation. However it is not the job of ISPs to determine the legality of material being transmitted through their networks.²²⁴

Indeed, not only is it not within the purview of the regulator, it is currently difficult to determine the legality of data transmitted over the network. For instance, IFTA underlines the example of Comcast blocking file sharing of legal

²²² Saxberg and Canadian Music Publishers Association, “Re: Broadcasting Notice of Public Hearing CRTC 2008-19,” para. 7.

²²³ Canadian Independent Record Production Association (CIRPA) and McKie, “Re: Telecom Public Notice 2008-19 Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 6–7.

²²⁴ Government of Canada, *Review of the Internet Traffic Management Practices of Internet Service Providers*.

material such as the King James Bible in the United States through “packet forging”.²²⁵ Arguably the most often cited case for Canada is when Bell slowed down the distribution of an episode of *Canada's Next Great Prime Minister* over BitTorrent, which the CFTPA mentions.²²⁶ DeBeer has argued that this practice had thoroughly come between the Canadian cultural institution and its objective to fulfil its mandate according to the *Broadcasting Act*.²²⁷

This is a problem that continues in part because of the legal consideration of telecommunication companies as neutral carriers.²²⁸ It is possible that in an environment conducive for their development, ITMPs and DPI could work in a way that does not single out applications but can still enforce copyright and hence be applied for the benefit of the cultural sector. The DOC suggests an alternative business model that could

make available a potential revenue stream to independent documentary filmmakers in the near future. If BitTorrent users can be identified by ISPs, perhaps ISPs should be put in charge of collecting additional fees on behalf of copyright holders. This would involve a licensing/tariff scheme whereby BitTorrent users will pay a global fee in exchange for the right to download copyrighted material, including material produced by many Canadian filmmakers (...) to endorse application-based throttling is to impede this revenue stream in support of the production of Canadian content before it has a chance to emerge.²²⁹

²²⁵Independent Film & Television Alliance (IFTA) and Cleary, “Re: Public Notice 2008-19 - Review of the Internet Traffic Management Practices of Internet Service Providers. Reference No. 8646-C12-200815400.”

²²⁶Canadian Film and Television Production Association (CFTPA) and Mayson, “Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers,” para. 7.

²²⁷de Beer, “Network Neutrality in the Great White North (and Its Impact on Canadian Culture).” “The program was subject to discriminatory traffic throttling by Bell Canada, inspiring numerous complaints by customers and one of the factors leading to CAIP’s complaint against Bell Canada for its discriminatory traffic throttling practices (...) the CBC’s most significant online move was to distribute its prime-time 2008 finale via the peer-to-peer file-sharing protocol Bit-Torrent. Doing so was in part a response by the CBC to its statutory obligation under the Broadcasting Act (1991, s.3(m)(vii)) to make its programming “available throughout Canada by the most appropriate and efficient means.””

²²⁸After the SOCAN case in 2004 and the SODRAC case in 2012, in March 2013, ISP Teksavvy was asked by an American film production company (Voltage) to provide the IP addresses of clients who had illegally downloaded films that production company made. It has since been represented by CIPPIC in court. See Ellis, “CIPPIC Posts 2 Damning Affidavits in Voltage ‘Piracy’ Fight.”

It is one policy choice to use ISP-based filters to accomplish what the DOC is suggesting.²³⁰ Encouraging website developers and content producers to use digital rights management technologies that insert controls in the cultural product itself rather than in the network management processes is another.²³¹

Decision

On October 21st, 2009 the CRTC released Telecom Regulatory Policy 2009-657. The Commission organized its decision by establishing four orienting “considerations”: transparency, innovation, clarity, and competitive neutrality.²³² It underlined the fact that it must respect the “policy direction from the Governor in Council”, set in 2006, which stipulates that the CRTC should “rely on market forces to the maximum extent feasible” and ensure that “any technical regulatory measures are implemented in a symmetrical and competitively neutral manner to the greatest extent possible.” The regulator established that “investment in network capacity is a fundamental tool for dealing with network congestion and should continue to be the primary solution that ISPs employ.”²³³

When building the network is not enough, the CRTC acknowledged that ITMPs might be necessary, and that these, like the other technologies that are a part of telecommunication infrastructure, are evolving. For innovation and a

²²⁹Documentary Organization of Canada and Christou, “Telecom Notice of Public Consultation and Hearing CRTC 2008-19 Call for Comments on Internet Traffic Management Practices of Internet Service Providers,” 3.

²³⁰ The capacity for ISPs to identify users is also debatable, as was thoroughly argued in the 2013 court case between Voltage Pictures and Teksavvy represented by the CIPPIC. IP addresses associated to certain kinds of use are hardly traceable back to precise identities. Ellis cites Lethbridge's affidavit for CIPPIC: “If something wrongful is alleged to have happened through an IP address it would be impossible to conclude that any one individual was responsible without additional evidence obtained by examining the actual computers involved.” Ellis, “CIPPIC Posts 2 Damning Affidavits in Voltage ‘Piracy’ Fight | Life on the Broadband Internet.”

²³¹Currently product-level protections like Digital Rights Management technologies are used on digital cultural products by certain companies and knowingly shunned by others. Some music fans for example prefer to buy open and “transmutable” music tracks. See Heller, “Bleep.com’s DRM Free Digital Music Store Wins ‘BEST MUSIC STORE’ at Digital Music Awards”; Hughes and Lang, “Transmutability.”

²³²Government of Canada, “Telecom Regulatory Policy CRTC 2009-657.”

²³³ Ibid., para. 36.

complex array of services to be encouraged to develop then the regulator chooses to handle ITMP through a “framework” rather than through “bright line rules” that determine which ITMPs are unacceptable.²³⁴ Following this, the CRTC explained the “Framework for determining acceptable ITMPs”: this provides the questions that an ISP must answer when it either wants Commission approval for the use of an ITMP or when it replies to “a complaint regarding an ITMP it has implemented”. This framework is split into two steps: first ISPs must describe, define and justify the ITMP. This consists in explaining the reason for using the ITMP, what the ITMP does and how it functions (the “how” and the “what”, if we remember Jordan & Ghosh's framework.) ISPs must “identify whether or not the ITMP results in discrimination or preference”. If that is the “result”, ISPs in a second step explain and evaluate the level of discrimination or preference and justify why such an ITMP is still necessary after considering the practices preferred by the CRTC, meaning “network investment or economic approaches.”²³⁵ This kind of framework would generally, the Commission states, not apply to economic ITMPs because of their “transparency” for the customer.

The decision also determined how ITMPs, economic and physical, would be applied by primary ISPs to wholesale retailers/secondary ISPs. The CRTC decided that in the case of primary ISPs applying ITMPs to wholesalers or secondary ISPs, if these ITMPs are “more restrictive than those that they apply to their own retail internet services”, the approach for the approval of the ITMP(s) is “ex-ante” or before-the-fact. Furthermore, the CRTC asks ISPs to seek approval before deploying ITMPs that “block”, slow or “noticeably degrade” “time-sensitive traffic” as well as non time-sensitive traffic requires “prior Commission approval under Section 36 of the Act.”²³⁶ On transparency, the Commission decided that physical ITMPs should be disclosed to customers as well as retail wholesalers and that in the case of economic ITMPs, “real time usage monitoring

²³⁴ Ibid., para. 37.

²³⁵ Ibid., para. 43.

²³⁶ Ibid., para. 125–127.

tools” should be made available to the client.²³⁷ On privacy, the Commission forbids ISPs to use any personal information gathered on the client through technologies like DPI for any purpose other than managing the network. ITMPs used for “the purposes of network security and integrity” are not addressed in the 2009-657 decision.

More important than the decision of the regulator in this case, and of the regulator's interpretation of the comments presented to it at these hearings, is that arts and culture organizations have formally engaged with telecommunication policy and technical or “carriage” internet governance issues that have precise impacts on their work. Beyond the work of the policy regulator, a combination of environmental factors, from media concentration, to existing cultural policy, to the relationship between content producers and broadcasters, and technological factors, from convergence and congestion to economic and physical Internet traffic management practices and illegal downloading, contributed to building a case for arts organizations to fight against certain telecommunication infrastructure characteristics. They made their claim to participate in Internet governance forums and occupied a seat at the table to orient ICTs towards some ends rather than others. Arts and culture organizations have demonstrated how application specific ITMPs could affect their work, such as through gate keeping, undue preference and discrimination against applications that in turn disadvantage certain practices of the cultural sector. They also explained the necessity of network neutrality principles when working with a telecommunication service whose quality, namely its speed and downloading/uploading capacity, comes at a price.

The concurring opinion of Timothy Denton in the New Media decision as well as the alternative revenue models imagined by the cultural sector suggest that at the very least, the “old regime” of broadcasting applied to the internet is not the best model for consumers and cultural producers, and even less

²³⁷ Ibid., para. 58.

welcoming to a diversity of cultural practice and arts organizations in general who integrate ICTs into their work. In his review of the New Media hearing Michael Geist argued that it is time to “assist Canadians to become part of the creative and participative process. The divide of users and creators has blurred and we need networks that facilitate participation, not just consumption.”²³⁸ As we have seen, the roles of users, broadcasters, cultural organizations and content creators have changed, as some organizations also found, partly in response to the integration of new ICTs into cultural practices and the consolidation of communication companies. In consequence, it is possible that cultural labour or work is less distinctly differentiated from “user-generated content”. One thing cultural practices at the professional or user-generated and participatory level have in common is that their access to telecommunication infrastructure is bought from an internet service provider. The following concluding chapter gives a brief suggestion of how an alternative definition of technology can contribute to re-framing decision-making on digital infrastructure as a worthy concern with high stakes for arts and culture organizations.

²³⁸“Michael Geist - CRTC New Media Hearings - Day One: CCA, ACTRA, DGC, APFTQ, APFC.”

**Conclusion: Science and Technology Studies (STS), Actor- Network Theory
(ANT), and Alternative Modes of Interacting with Telecommunication
Infrastructure**

Canadian arts and culture organizations have formally engaged with telecommunication policy by advocating on behalf of their members at the Canadian Radio-television and Telecommunications Commission. In the first chapter we argued that how arts and culture organizations in Canada are defined matters. We also showed that they have a history of communication and cultural policy advocacy that has mostly been mobilized toward “content” issues and that they could be worthy allies in the North-American media-reform movement. For our purposes, the position these organizations hold in the communication environment sets up their own conceptualization of the relationship they have or could have with the internet. Not only does this relationship exist at a symbolic level, guiding their role, responsibilities and rights to engage in formal policy decisions on telecommunication infrastructure, it exists at the material level of interaction with the technological objects that constitute telecommunication infrastructure as well.

In the second and third chapters we saw that in 2009 these groups added “carriage” policy to their advocacy issues. This marks a shift in their advocacy from a tendency to address technology through “content” issues to becoming involved in the regulation of the “pipes” or material dimension of telecommunication infrastructure. They argued that not only was the division between “content” and “carriage” in the Canadian communications environment untenable, it permitted the application of internet traffic management practices that were detrimental to their members as cultural producers and to their activities which did not strictly fall within “content production.” By negotiating against being too closely defined through the cultural object and hence “content production”, arts and culture organizations showed that their relationship to ICTs

and telecommunication infrastructure implied a more complex array of cultural practices.

While their formal internet activism provided plenty of reasons for policy makers to take their and their members' needs into account and helped stake a place for the cultural sector at one table where decisions on the technical characteristics of telecommunication infrastructure are made, this concluding chapter suggests that a revised conceptualization of telecommunication infrastructure and ICTs as technological objects in general could help arts and culture organizations further advance their interests. A Science and Technology Studies (STS) and Actor-network Theory (ANT) informed definition of technology and telecommunication infrastructure can help identify another mode of engagement different from formal policy advocacy with ICTs that is also productive.

This concluding chapter will first describe some ideas from STS and ANT that provide insight for the study of the relationship between culture and technology. The second section demonstrates how, thanks to these understandings, some of the work Canadian cultural organizations already do can be understood as producing and transforming the internet. This is an especially encouraging alternative to formal policy advocacy when we consider to the extent to which Canadian telecommunication policy and the institutional context in which technologies like ITMPs are deployed have limited impacts on their development.

An STS and ANT Account of Technology

An STS and ANT oriented definition of technology useful for understanding the relationship between cultural organizations and technology first questions the nature of the material artefacts themselves, as inorganic non-

human objects. The second aspect concerns the relationship between the technological object and human beings.

Technological objects have often been instrumentalized and seen as discrete tools. There are several problems with instrumental accounts of technology. If the definition of a technological object consists of what the object is used for, what it has been built to do, or what its functions and capabilities are, this enables both over and under-evaluating the importance of the social in relation to the object. A technologically deterministic view for instance would find the object carries inherent framing or organizing capabilities that explain why it has impacts and consequences on the world. A social-constructionist view would on the contrary locate power over the object's possible uses and results within the hands of those who own, design, operate or use them. STS and ANT define the technological object in a third way that balances both of these views. One of the ways it does this is by viewing technology as an “assemblage” or a network of actors, rather than positing a human/nonhuman binary.

One of Bruno Latour's key arguments in *Reassembling the Social* is that the “social science of sociology” has given “ontological priority” to the human and the social, somehow upholding a vision of society and collectivity that excludes or forgets nonhuman objects and matter. Yet the “non-human” is a formidable part of what “holds society together”. Their consistency as “matter” enables objects to be, Latour argues, “engaged in making interactions longer lasting and further reaching.”²³⁹ When objects are accounted for in this sustaining and supporting role, they manifest as “intermediaries” rather than mere “mediators”. These objects or nonhuman elements are just as much a part, a participating actor, in organizing and giving meaning to interaction. For this definition to hold it is important to clarify that the “agency” of the technological object does not require intentionality. In ANT agency is found in all forms of intermediation and nonhuman matter participates by having effects on whatever process or

²³⁹Latour, *Reassembling the Social*, 76.

relationship they are a part of. This is especially profound when we consider how much nonhumans intermediate all kinds of practices in our daily lives.²⁴⁰

Identifying some problems with instrumentalization, STS scholars would for example say that “focusing on the ‘impacts’ or ‘uses’ of technology masks ‘the constitutive intertwining and reciprocal interdefinition of human and material agency’ (Pickering, 1995, p. 26).”²⁴¹ Orlikowski frames the “role of technology in terms of a mutual interaction between human agents and technology, and hence as both structural and socially constructed.”²⁴² Technological artefacts are “intrinsically social”²⁴³ rather than intrinsically political. Their politics come from the symbolic context in which they are developed and used, when meaning is invested or “translated” into objects by other people, which is repeated and perpetuated over time. “Translation” means the delegation of action to matter.

While it is correct to promote users and designers, such as arts and cultural organizations, as “agents of technological change”²⁴⁴ the technological object also exercises its own autonomous agency independent of human will, because it consists of material with physical characteristics, limits and properties. This is where the idea of a fundamental “uncertainty” or “ambivalence” as an essential characteristic of technology comes in, as does its agency.

The role and function of technology is indeterminate: its role and function includes and folds in humans.²⁴⁵ Stiegler frequently used Simondon's example of

²⁴⁰Ibid., 141. Latour is especially talented at using a rich vocabulary to express this kind of participation and interaction, probably a pre-requisite for understanding the concept. From page 72: “things might authorize, allow, afford, encourage, permit, suggest, influence, block, render possible, forbid, and so on.” That's how objects as actors can explain “the contrasting landscape we started with, the overarching powers of society, the huge asymmetries, the crushing exercise of power”, and how it is possible to not limit one's interpretation of a speed bump as a material incentive to slow down when driving, a “cause” of slowing down, but rather the “result” of multiple processes of translation.

²⁴¹Orlikowski, “The Sociomateriality of Organisational Life.”

²⁴²Orlikowski, “The Duality of Technology,” 403.

²⁴³Orlikowski, “The Duality of Technology.”

²⁴⁴Wajcman, “Addressing Technological Change”; Wajcman, “Feminist Theories of Technology”; Faulkner and Runde, “On the Identity of Technological Objects and User Innovations in Function.”

²⁴⁵Latour, *Pandora's Hope*, 185; Riis, “The Symmetry Between Bruno Latour and Martin Heidegger The Technique of Turning a Police Officer into a Speed Bump,” 287, 296.

the Guimbal turbine to illustrate a similar understanding of the relationship between the object and humans, where “human geography is made to participate in the process of technical associated milieus.”²⁴⁶ At the same time as the technological object integrates humans into its functioning (as it tends toward what Stiegler calls “concretization”)²⁴⁷ it also gathers the meaning of this interaction thanks to the social context in which it is implemented. This view contends that the object is not neutral nor is its politics derived from its built-in characteristics: its politics come from its ambivalence, the balancing act as it teeters between exercising its agency as material and integrating the agency of other elements in its environment.

Latour's attention to “uncertainty” assumes that objects and technological artefacts are uncertain, ambivalent and open, and the place where power is conferred comes into view. Consequently the way the machine works is not a “cause” or origin of something (like the origin of power) but the “result” of a set of interactions between actors. Indeed the way an object is typically defined is by the functions or role attributed to it by those who design, implement and use the object. To define a technology in this way prioritizes a kind of “mode of interaction”²⁴⁸ or practice thereby organizing the ecology of actors that surround it and making a relationship between nonhuman and human a norm. Regarding agency and the location of politics, Bijker, for instance, argues for the consideration of technological objects as ensembles: “artifacts do not have politics- at least not in any context-independent and intrinsic way. They have politics only when they are discursively regulated by symbolic media that mystify and therefore constitute the political aims; in other words-only if they are considered as technological ensembles.”²⁴⁹ This “discursive regulation by symbolic media” which emerges for the researcher when the technological object

²⁴⁶Stiegler, “Teleologies of the Snail The Errant Self Wired to a WiMax Network,” 43.

²⁴⁷Stiegler, Bernard. *Technics and Time, 1: The Fault of Epimetheus*. Stanford University Press, 1998, 83.

²⁴⁸Bendrath and Mueller, “The End of the Net as We Know It?”; Mueller and Asghari, *Deep Packet Inspection and Bandwidth Management*.

²⁴⁹Bijker, “Do Not Despair,” 127.

is considered as an ensemble may be commensurate with what Langdon Winner calls the “meaning of the designs and arrangements of our artifacts”:

In our accustomed way of thinking technologies are seen as neutral tools that can be used well or poorly (...) If our moral and political language for evaluating technology includes only categories having to do with tools and uses, if it does not include attention to the meaning of the designs and arrangements of our artifacts, then we will be blinded to much that is intellectually and practically crucial.²⁵⁰

An instrumentalized definition of technological objects blinds us to their political contingency, and thus to our capability to make decisions about them or identify when decisions regarding them are being made.

When integrated into daily life or work, technological objects “matter”, their combined physical and symbolic properties organizing and inspiring practices. Latour would ask about the “network” of actors or “assemblage” that sustains the internet in Canada and include human and nonhuman actors symmetrically. The internet is not an object that stands alone or a set of technological artefacts networked together: it exists because people have invested meaning into it, but also it exists as it is because of its physical characteristics and the properties of its material elements. Indeed, “the deep insight of recent social studies of technology is to show that signification and materiality always form an interactive process (Bijker et al., 1987; Latour, 1987; MacKenzie, 1993).”²⁵¹ What is important to acknowledge as a consequence of an application of this kind of definition to the work and advocacy of Canadian arts organizations is that culture or how meaning is made when considering telecommunication networks is also a material process.

Focusing on the representational or “content” aspect of the internet, for instance, means channelling advocacy or productive energy into the fact that cultural content appears on the browser interface and that cultural material is accessible via applications. Yet the carriage technology itself, hidden under the interface, inside and in between computers, is a participant in culture about which

²⁵⁰Winner, *The Whale and the Reactor*, 25.

²⁵¹Pinch, “On Making Infrastructure Visible,” 80.

we think too rarely. Instead of imagining a division between the material and the symbolic scholars like Latour, Petersen and Haraway speak of “material semiotics.”²⁵² As we saw in chapter three, part of the shift from “content” advocacy to combined content and carriage advocacy on the part of arts organizations required them to interact with a fundamentally more technical and material “layer”, the “pipes” of telecommunication infrastructure. This shift demonstrates the strong link between the representational capabilities of the internet, or more clearly, what is seen and heard through various application interfaces, and what works behind the interface, ultimately holding the networks together and grounding the transfer of data from one physical location to another. To isolate one from the other is to obstruct half the story from view. Petersen explains that Grossberg finds cultural studies,

has reduced popular culture to communicative processes, thereby reducing culture to text and human reality to one place of meaning, which is text with subsequent epistemologies of cognition and semantics (...) to take further Grossberg's analysis, I will show some of the material and structural effects of the use of broadband internet in the home and will focus on how representations on the computer screen and the use of the internet in everyday life produce different forms of materiality and structural changes (time).²⁵³

Copper wires, internet protocol and application code, satellites, modems, routers, spectrum, fibre optic cables, servers - these are not merely useful as matter that carries data or routes information or content which then are the source of meaning. These are things that “hold”, as Latour would say, the internet together. They “hold” people and their practices together. They are there when cultural trends come and go, from where and how music and film are enjoyed to what kind of monetary relationship exists between the artist and the audience to who uses them and how.

²⁵²Wajcman, “Feminist Theories of Technology,” 145; Petersen, “Mundane Cyborg Practice Material Aspects of Broadband Internet Use”; Haraway, “The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others”; Law, “Actor Network Theory and Material Semiotics.”

²⁵³Petersen, “Mundane Cyborg Practice Material Aspects of Broadband Internet Use,” 79.

Part of the struggle for arts and culture organizations when working with ICTs has been the cost of integrating the internet into their practices. Economic and physical ITMPs cost money, time and space - “shelf-space”, to use art's organizations own vocabulary in the Broadcasting and New Media hearing.²⁵⁴ As we have seen, rather than remain obscure, neutral and unattainable, ITMPs, by putting stress on the work of arts and culture organizations, reveal their potentials and capabilities. ITMPs exercise their agency and appear as intermediary participants when implemented to manage congestion, itself a phenomenon that reveals the physical limits and capacities of the telecommunication network. Thus these technological objects, because of their limits and their capacities, their characteristics, come into a relationship with human actors - cultural producers in particular. In addition, these arts and culture organizations argue that “congestion” is not exclusively the result of the physical limits of telecommunication infrastructure technologies; it is also caused by the choices of those who own, operate and build these networks.

Perhaps when Latour said that “matter is a highly politicized interpretation of causality”, he meant that is it possible not to limit one's interpretation of telecommunication infrastructure to casting it as a threat to the traditional broadcast distribution undertaking and service industry or as the “cause” of a reorganized relationship between audiences and cultural producers. Rather it is the “result” of multiple processes of translation dependent on the appropriate institutional, industrial and cultural contexts, processes which continue to produce what telecommunication infrastructure is through both formal advocacy

²⁵⁴ The consequences of these ITMPs, organizations argued, can be so dramatic on the cultural producer's livelihood that a complaint system is less reassuring than a preventative, hard or “bright line” measure that would secure ICTs as a viable and dependable medium. “New” media, we have also seen, and the work of arts and culture organizations and their members online, requires “new” and additional work as well as knowledge and resources. This must be recognized, but often work, when it is digitized, is conceptualized as “immaterial”, free, and equalizing. This is a consequence of a certain kind of technological innovation invested with meaning, with assumptions that some technologies have inherently democratizing or equalizing properties. For more on the aesthetics of “open-source culture” and the precarity of labour in free-culture see Voyce, “Toward an Open Source Poetics.”; Ceraso and Pruchnic, “Introduction.”

and other modes of engagement. People and objects at all stages of the development, design, implementation and use/integration of the telecommunication infrastructure establish and stabilize how and why an array of actors, including the infrastructure itself, can be related.

An STS informed definition of technology points to space for engagement, concern and thinking in three ways. First, at the level of implementation and gathering of functions into the object by policy-makers and engineers. Second, in the consideration of the agency and action of the objects and their physical properties themselves into the environment which includes humans. Third, the interdependence and co-production of these elements comes into view, no longer heterogeneous and divisible but mutually constitutive and continually exchanging.

Its Own Terms: ITMPs and the Canadian Internet Today

The STS approach informed Mueller and Asghari's research into how DPI influenced Canadian and American regulatory decisions prior the 2009 hearing on the internet traffic management practices of internet service providers, concentrating on the Canadian Association of Internet Providers (CAIP) cease-and-desist filing against Bell Canada for its use of DPI and their throttling of P2P file-sharing.²⁵⁵ Their research questions are “rooted in problems of science, technology and society studies (STS).” Mueller explains that, instead of technological determinism or social constructivism as mentioned above, he and Asghari take a “third view”:

A third view tries to bridge this divide by focusing on the co-production of technology and governance. Its adherents believe that “artifacts and their properties should be analyzed neither as objective facts nor as mere social constructions, but as both real and constructed (Brey, 2005, p. 62).”²⁵⁶

²⁵⁵Mueller and Asghari, *Deep Packet Inspection and Bandwidth Management*, 467.

²⁵⁶*Ibid.*, 463.

Technical ensembles, assemblages, networks, or ecosystems come into view and replace the technological object as a discrete tool abstract from or completely dependent on its environment. Mueller and Aghsari find that technological developments like deep packet inspection, a topic of contention in the ITMP hearings for arts organizations, can be “disruptive” and “redistribute control” over internet infrastructure. Technologies can change other technologies.²⁵⁷ The authors find that “superficially, it appears that Canada’s regulator entered into the controversy over network management techniques with a clear legal mandate to act and imposed rules on DPI that would ensure its neutral and nondiscriminatory use. But the data tell a slightly different story.”²⁵⁸ In fact, comparing Canada and the United States after these moments, “Canada’s system left DPI use unchanged, while the U.S. intervention dramatically changed it. Ironically, the country with no applicable law or regulation ended up having the stronger impact on the technology’s deployment!”²⁵⁹

Recent research continues to find that throttling and DPI use by Canadian ISPs is common practice, further highlighting the importance of alternative modes of producing the internet. David Ellis has called out this deeply-rooted pattern with the help of Mueller’s on-going Glasnost-assisted research. Glasnost is a software program that internet users can use to detect to what extent their internet connections are being managed and collects the results of these tests to compile research data on the “blocking and throttling of BitTorrent” and other applications.²⁶⁰ Canadian ISPs continue to use ITMPs and DPI despite public support and advocacy for “net neutrality”, the concerns expressed by stakeholders such as arts and culture organizations about what is at stake for their members and Canadians when internet technology is operated in this way, and the regulator’s 2009 decision on ITMPs.

²⁵⁷Ibid.

²⁵⁸Ibid., 469.

²⁵⁹Ibid., 463.

²⁶⁰Measurement Lab (MLab), “Using Network Data to Detect Dpi.”

Peter Nowak and Michael Geist have also heavily criticized the outcome of the *Review of the Internet Traffic Management Practices of Internet Service Providers* or “net neutrality” hearing, finding that “not much changed” in both the practices of ISPs and in how the CRTC handled throttling.²⁶¹

Bandwidth scarcity and the physical limits of telecommunication networks can influence how the regulation of technological infrastructure will unfold. It is in this sense that we can say the infrastructure is an agent. However, this agency is not completely independent of institutional context and the interactions of different stakeholders with these technical characteristics. As Mueller and Ashgari put it: “In this shaping, the characteristics and capabilities of the technology matter, but so does the institutional setting and the interaction between those capabilities and the interests of specific actors.”²⁶² In light of this, the question becomes what assemblage of actors - technological, institutional and practical - will be best suited to produce outcomes in the interest of arts and culture organizations and the people they represent?

While viewing technological objects as “tools” appears inoffensive it orients their development and functions towards efficiency, or the drive for things to work. The dominant policy view continues to frame technical objects or technologies in terms of “solutions that transcend ideological differences”²⁶³

²⁶¹ Ellis writes: “Bell and Rogers have been world-class throttlers, setting records compared to ISPs in many other countries. In the chart below, data from years 2009, 2010, 2011, and the first quarter of 2012, have been accumulated, and show for each ISP the proportion of end-user tests (in percent) that revealed DPI was in use to manipulate BitTorrent during the transmission being tested. Rogers Cable holds 4th place, at 80%, while its frenemy Bell Canada is right on its heels at about 78%”. In addition, Peter Nowak calls Rogers “the worst ISP in the world when it comes down to slowing down customers.” Michael Geist is a Canadian lawyer who has closely followed and critiqued the failures of the CRTC in regards to enforcing ITMPs and receiving complaints by consumers about their service providers throttling their connection. In March 2012, Geist posted to his blog and column in the *Ottawa Citizen* that “not much changed during the first two years of the net neutrality policy. The [CRTC] received dozens of complaints, but there were few, if any, consequences for the providers”. Geist built a compelling case against the CRTC when it was found that the regulator had been sitting on hundreds of complaints pertaining to net neutrality. See Ellis, “Et Tu, Brute?... Aka Julius Genachowski, Data Cap Booster (2)”; Geist, “Canada’s Net Neutrality Enforcement Failure”; Nowak, “Tests Show CRTC’s Anti-throttling Rules Are Useless.”

²⁶² Mueller and Asghari, *Deep Packet Inspection and Bandwidth Management*, 467.

²⁶³ Barry, *Political Machines*, 7.

which ultimately exist “outside of politics.”²⁶⁴ When discussing communication technology's democratic potential, Barney writes: “these technologies are not just political instruments: they are also political objects, which is to say that citizens ought to be able to participate in making political decisions about them.”²⁶⁵ For citizens to participate in this kind of decision-making, however, they must move beyond the naturalized instrumental accounts of telecommunication technologies and the limited roles of consumer or content producer. A non-instrumental understanding of digital infrastructure re-positions what were once the “user” and “consumer” as co-producers of the technology itself. Reconfiguring their role, agency and relationship to telecommunication infrastructure then, arts and culture organizations can begin to circumvent the limited frames and outcomes of formal policy-making forums that have so far not provided an environment that adequately reflects the nature of their relationship to these technologies. Part of the answer lies in the work these arts and culture organizations already do.

ICT Activism Through Doing and Making

Alternatives to formal policy-making participation have been taken up by other stakeholders with interests in the characteristics and capabilities of telecommunication infrastructure. Grassroots tech groups and alternative ISPs interviewed by Hintz and Milan express more interest in “doing” and shaping communication infrastructure by building or creating than in participating in formal policy-making forums like the World Summit on the Information Society and the Internet Governance Forum: “Our job, as activists, is to create self-managed infrastructures that work regardless of “their” regulations, laws or any other form of governance.”²⁶⁶ It is unreasonable to expect that art organizations can exercise as much productive influence as a group that is centred on the technological object and educated to that effect.

²⁶⁴Ibid.

²⁶⁵Barney, *Communication Technology*, 208.

²⁶⁶Hintz and Milan, “At the Margins of Internet Governance,” 31.

Still arts and culture organizations can be considered active participants in the shaping of ICTs that transform their own practice in a kind of co-productive relationship. Cultural organizations and their members do this first by putting stress on the telecommunication network through demanding bandwidth for a wide range of cultural practices and organization work. Encouraging users and organizations to be economical or bandwidth savvy about these activities can discourage sharing and effective communication not to mention stunt innovation in cultural practice. It is self-evident for these stakeholders that encouraging, rather than curtailing, *this kind* of innovative practice is necessary and starts by increasing network capacity. Cultural organizations and their members also build applications and websites as well as carry out practices like installations, events and workshops which integrate fast, quality broadband. They would hope that their members and audiences also have access to this technology in order to take part in these activities and feel the frustration of disconnection when the apparatus doesn't meet them halfway.

Arts and culture organizations are becoming increasingly recognized for their role as technological innovators. In 2011 the Canadian Internet Registration Authority (CIRA) awarded ArtsAlive.ca an Impact Award.²⁶⁷ The NFB's work has also grown beyond producing and promoting cultural content. It is fitting then that Tom Perlmutter and the NFB articulate higher demands from telecommunication infrastructure and policy that recognize the contingency or ambivalence of ICTs. This even includes the topic of how society must make choices about orienting technology toward certain ends:

Tom Perlmutter, our Government Film Commissioner and Chairperson of the National Film Board, has previously forewarned "...is it time to stop and reconsider the social and cultural effect of this enormous change on our children and grandchildren, and to ascertain if this digital transformation is helping us in our daily lives as people, deepening our cultural sensitivities,

²⁶⁷ Austin, "CIRA Announces.CA Impact Award Winners at Mesh Conference.": "ArtsAlive.CA, an educational performing arts website produced by the National Arts Centre, is the pre-eminent resource for performing arts education in Canada, engaging Canadians through information, multimedia and activities."

or is it pushing us further into a more stress filled era of economic “paucity” and the “dumbing down” of cultural expression?²⁶⁸

The NFB, a participant in the 2009 New Media hearing, is definitely taking up its potential as a practitioner that produces the internet and goes beyond the work of “content production” that integrates ICTs. Not only has it developed media players and mobile applications but has designed its own solution to labour-intensive digitization. It developed a file format:

The NFB’s solution, a just-in-time system that turns each celluloid treasure into a relatively small “mezzanine” file from which other formats can be generated, is innovative enough that the board hopes to license it. It also has an educational media player on the website (which lets teachers assemble clips from multiple films) that it hopes to sell to users outside Canada.²⁶⁹

In this *Globe and Mail* article the NFB's work is framed as if it were a cultural entrepreneur and an actor in the new “transmedia” form of cinema. While this is certainly fascinating, the pressure and influence the NFB exerts on telecommunication infrastructure and its policies with these developments is what is most relevant for our purposes.²⁷⁰ Perlmutter and the NFB are orienting the cultural institution to create ICTs and in turn, direct their integration of telecommunication technology into cultural practice. The act of making one’s own technology so that telecommunication infrastructure may better participate in attaining certain goals acknowledges a mutually constitutive relationship. This is also found in the following statement made by the Réseau Art Actuel in the context of the call for comments by Industry Canada for a digital economy strategy in 2010. Although their focus does work within Industry Canada's vision of a technology-enabled information economy, they state:

D'entrée de jeu, nous sommes convaincus que si l'art a besoin des nouvelles technologies, les nouvelles technologies ont besoin de l'art et des artistes, autant pour qu'elles puissent en développer de nouveaux aspects que pour

²⁶⁸Stratford Institute for Digital Media, Wilson, and Cowan, *A Personal Perspective - “To Be Or Not to Be” in The Stratford Report 2012 -Arts and Culture and the Digital Crossroads*, 36.

²⁶⁹Taylor, “How Tom Perlmutter Turned the NFB into a Global New-media Player.”

²⁷⁰ Ibid.: “At home and abroad, the organization is fusing Canada’s traditional strengths in documentary and communications technology with its newer reputation as a new-media leader to build a uniquely accessible cultural institution dedicated to storytelling and democratic dialogue.”

pérenniser la place de l'art et des artistes dans nos vies et dans celles de nos contemporains.²⁷¹

A Holistic Strategy and a Co-Productive Relationship

For these practices to work they need support from the technological ensemble. In this case telecommunication policy, cultural organizations and the infrastructure itself must tend toward commensurable goals. This brings us back to the “holistic strategy” advocated by the NFB in 2009, one that recognizes the intermingling and complexity of the cultural communications environment. In “The Sociomateriality of organizational life”, for example, Orlikowski mentions that “Kling and his colleagues developed what they termed a ‘web model of computing’, focusing on the broader ecology of people, infrastructures, resources, policy decisions and social relations that affected the development, adoption, appropriation and adaptation of information technology (Kling and Dutton, 1982; Kling and Scaachi, 1982; Kling and Iacono 1984; Gasser, 1986).”²⁷² Other accounts of philosophy of technology achieve this “ecology” by radically including technology as a constituent part in human evolution.

The project of viewing the work of arts and culture organizations through this lens then is commensurate with Stiegler's account of technicity as being originary to the human. His work explains namely how communication technology and media then are “an environment for life: by giving concrete form to 'epiphilogenesis' (the exteriorization of human evolution), concrete media find their most 'originary' function not as artifacts but via their participation in human technogenesis (our co-evolution with technics).”²⁷³ As we have alluded to earlier, it is inappropriate to separate human action, thought and work from the matter

²⁷¹My translation: “From the start, we are convinced that if art needs new technologies, new technologies need art and artists, equally for technologies to develop new aspects of art and to ensure the continued existence of the place of art and artists in our lives and the lives of our contemporaries”. Réseau Art Actuel du Québec (RAAQ) and Réseau des Centres d'Artistes Autogérés du Québec (RCAAQ), “Accroître L'avantage Artistique Du Canada Par Le Numérique.”

²⁷²Orlikowski, “The Sociomateriality of Organisational Life.”

²⁷³Hansen, “Media Theory.”

that receives, inspires, organizes and sustains human action, thought and work. Effectively, the endless network of associations that makes the world and hence is essential to an ontology of the human is thoroughly populated and sustained by non-human objects or “organized inorganic beings”.

In the Canadian context, Canadian national and cultural identity and sovereignty as well as desires of technological innovation and economic prosperity have been vested into the telecommunication object, thereby orienting it as it intermediates cultural and communicative processes. The place of the arts and culture organization, and of the cultural sector in general, within the institutional context at the CRTC ITMP hearings is an interesting one. Although much of the concerns of these cultural organizations have remained stable through their advocacy work, the Canadian internet has not only exacerbated long-standing issues but, as is the case with many communication technologies, brought forth the problem of centralizing control of telecommunication through the service industry.

This decreases the possibility of alternative yet vital meanings and desires to be first imagined and second, translated into technological matter at the policy level and implementation levels. On December 2nd, 2008, the CMPA wrote that “in this changing world”, they need an “activist CRTC” :

The digital revolution is redefining the use of media by consumers, and the business models of these industries, from scratch, and also, how they relate to each other. As the representative of an important sector of the music industry, we are concerned about the health and future of the entire media and culture ecosystem. In this changing world, CMPA believes in the need for an activist CRTC, driven by thoughtful analysis and clearly considered decisions. Radical change in the industries the CRTC regulates requires radical new ways of thinking at the CRTC, and actions that reflect that.²⁷⁴

This call for an “activist CRTC” recognizes that the relationship between different actors in the “media and culture ecosystem” is changing. Still, it must be re-iterated that one of the actors involved and interacting is the

²⁷⁴Canadian Film and Television Production Association (CFTPA) and Mayson, “CFTPA Submission to Broadcasting Notice of Public Hearing 2008-11: Canadian Broadcasting in New Media.”

telecommunication infrastructure itself, and that because of the mutually constitutive relationship that exists between people and the technologies they integrate into their practices, what is needed goes beyond what is done at the policy and regulatory level. Definitions of technology that instrumentalize our relationship to these objects while simultaneously investing many resources into reacting, responding and adapting to the unstoppable force that is technological innovation must be discarded and replaced with a definition that is closer to what is actually unfolding - a co-productive relationship that has existed for a long time.

It is one thing to take the account of STS and ANT and to radically include nonhuman objects in our concept of collectivity, as actors with agency who participate and effectively co-produce the world. It is another to consider technology as more than a participant in human evolution but a fundamental part of what it means to be human. The study of the “impacts” of technologies and digital infrastructure on people now appears extremely short-sighted, even euphemistic. This technological co-productivity is not a contemporary phenomenon nor is it a consequence of “new” revolutionary technologies, but has been the reality from the start, subject to the extent to which different actors in the ensemble recognize their own responsibility and agency in technological innovation. This organized inorganic matter's unique talent - its “steely quality” and ability to hold, glue, gather, stabilize and collect meaning so well and over time which Latour identified - is precisely that talent we and arts and culture organizations must focus on if we are to become more empowered in our relationship to technology. Simply put, much like a wooden table can, the internet must naturally appear to us as material and as constitutive of human life and relations.

Bibliography

- “À Propos.” *Mouvement Pour Les Arts et Les Lettres (MAL)*. Accessed September 28, 2012. <http://mal.qc.ca/apropos.php>.
- “À Propos de Nous.” *Artengine*. Accessed September 28, 2012. <http://www.artengine.ca/aboutus-fr.php>.
- “Article.” accessed June 14, 2013, http://www.article.org/web/menu02/mandat_fr.html.
- “About Us.” *Art Threat*. Accessed September 28, 2012. <http://artthreat.net/about/>.
- Abramson, Bram Dov, and Marc Raboy. “Policy Globalization and the ‘information Society’: a View from Canada.” *Telecommunications Policy* 23, no. 10 (1999): 775–791.
- “ACTRA National.” Accessed September 28, 2012. <http://www.actra.ca/main/>. Alliance of Canadian Cinema, Television and Radio Artists (ACTRA), and Stephen A. Waddel. “Submission of the Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) in the Matter of Notice of Public Hearing CRTC 2008-11 on Canadian Broadcasting in New Media.” May 12, 2008.
- Anderson, Steve, and Robert A. Hackett. *Revitalizing a Media Reform Movement in Canada*. OpenMedia.ca, 2010. [http://openmedia.ca/sites/openmedia.ca/files/SSRC%20Report\(2\).pdf](http://openmedia.ca/sites/openmedia.ca/files/SSRC%20Report(2).pdf).
- Andrew, Caroline, Monica Gattinger, M. Sharon Jeannotte, and Will Straw. *Accounting for Culture: Thinking Through Cultural Citizenship*. University of Ottawa Press, 2005.
- “ARTIST RUN MACHINES, OPEN SOURCE CULTURE.” *Media Arts Network of Ontario*. Accessed September 28, 2012. <http://manoramo.ca/artist-run-machines-open-source-culture/>.
- Association des Producteurs de films et de télévision du Québec (APFTQ), Claire Samson, and Brigitte Doucet. “Présentation Verbale de l’Association Des Producteurs de Films et de Télévision Du Québec (APFTQ),” February 17, 2009.
- Association Québécoise de l’Industrie du Disque, du Spectacle et de la Vidéo (ADISQ). “Mémoire de l’ADISQ - L’Économie Numérique Au Canada,” July 13, 2010. <http://www.ic.gc.ca/eic/site/028.nsf/fra/00298.html>.
- Association Québécoise de l’Industrie du Disque, du Spectacle et de la Vidéo (ADISQ), and Solange Drouin. “Commentaires de l’Adisq - Avis public de télécom CRTC 2008-19, 2008-19-1,” February 23, 2009.
- Association Resource Centre, and Charity Village. *2011 Canadian Nonprofit Sector Compensation and Benefits Study*, August 2011. http://www.gvconsult.ca/wp-content/uploads/2011/09/2011-CV-Salary-Survey_Exec-Summ-FINAL.pdf.
- Austin, Jennifer. “CIRA Announces .CA Impact Award Winners at Mesh Conference.” *Canadian Internet Registration Authority*, May 26, 2011. <http://www.cira.ca/news/news-releases/impact-award-winners/>.

- Bakhshi, Hasan, and David Throsby. *Innovation in Arts and Cultural Organisations*. NESTA Interim Research Report1, 2009.
<http://www.nesta.org.uk/library/documents/Innovation-in-arts-and-cultural-interim.pdf>.
- Barney, D., P. Little, and R. Hink. "Living up to the Code: Engineering as Political Judgment." *International Journal of Engineering Education* 24, no. 2 (2008): 314.
- Barney, Darin. "Communication Technology." In *Auditing Canadian Democracy*, 197–222. Vancouver: UBC Press, 2010.
- . "COMS 612 – Philosophy of Technology." Graduate Seminar, McGill University, Fall 2012.
- . "Politics and Emerging Media: The Revenge of Publicity." *Global Media Journal—Canadian Edition* 1, no. 1 (2008): 89–106.
- . "The Culture of Technology in Canada." In *Canadian Issues/ Thèmes Canadiens*. Vol. Winter 2007. Hotel Pur/ Québec City, 2008.
- . *One Nation Under Google: Citizenship in the Technological Republic*. Toronto: Hart House Lecture Committee, 2007.
- . *Prometheus Wired: The Hope for Democracy in the Age of Network Technology*. Chicago, Ill.: University of Chicago Press, 2000.
- Barratt, Neil, and Leslie Regan Shade. "Net Neutrality: Telecom Policy and the Public Interest." *Canadian Journal of Communication* 32, no. 2 (June 21, 2007). <http://www.cjc-online.ca/index.php/journal/article/view/1921>.
- Barry, Andrew. *Political Machines: Governing a Technological Society*. Continuum, 2001.
- Ben Roberts. "Beyond the 'Networked Public Sphere': Politics, Participation and Technics in Web 2.0." *The Fibreculture Journal* no. 14 (2009).
<http://fourteen.fibreculturejournal.org/fcj-093-beyond-the-networked-public-sphere-politics-participation-and-technics-in-web-2-0/>.
- Bendrath, Ralf, and Milton Mueller. "The End of the Net as We Know It? Deep Packet Inspection and Internet Governance." *New Media & Society* 13, no. 7 (November 1, 2011): 1142–1160. doi:10.1177/1461444811398031.
- Benkler, Yochai. "Communications Infrastructure Regulation and the Distribution of Control over Content." *Telecommunications Policy* 22, no. 3 (1998): 183–196.
- . *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. Yale University Press, 2007.
- Bertelsen, O. W., and S. Pold. "Criticism as an Approach to Interface Aesthetics." In *Proceedings of the Third Nordic Conference on Human-computer Interaction*, 23–32, 2004.
- Bijker, Wiebe E. "Do Not Despair: There Is Life after Constructivism." *Science, Technology, & Human Values* 18, no. 1 (January 1, 1993): 113–138. doi:10.2307/689703.
- Blais, Joline, and J. Ippolito. *At the Edge of Art*. London: Thames & Hudson, 2006.

- Blevins, Jeffrey Layne, and Leslie Regan Shade. "International Perspectives on Network Neutrality— Exploring the Politics of Internet Traffic Management and Policy Implications for Canada and the U.S." *Global Media Journal -- Canadian Edition* 3, no. 1 (n.d.): 1–8. Accessed July 4, 2013.
- Boateng, Boatema. "Whose Democracy? Rights-Based Discourse and Global Intellectual Property Rights Activism." In *The Handbook of Global Media and Communication Policy*, edited by Robinnsell and rc Raboy, 261–275. Wiley-Blackwell, 2011.
<http://onlinelibrary.wiley.com/doi/10.1002/9781444395433.ch16/summary>.
- Brison, J. D. "The Kingston Conference, the Carnegie Corporation and a New Deal for the Arts in Canada." *American Review of Canadian Studies* 23, no. 4 (1993): 503–522.
- Canada Council for the Arts. "Glossary of Canada Council Terms." Corporate Information. Accessed April 23, 2013.
<http://www.canadacouncil.ca/help/lj127228791697343750.htm>.
- Canadian Broadcasting Corporation/Radio-Canada (CBC), and Bev Kirshenblatt. "Re: Review of the Internet Traffic Management Practices of Internet Service Providers, Telecom Public Notice CRTC 2008-19, 20 November 2008 - Initial Comments of CBC/Radio-Canada," February 23, 2009.
- Canadian Broadcasting Corporation/Radio-Canada, and Bev Kirshenblatt. "Reply Comments Re: Review of the Internet Traffic Management Practices of Internet Service Providers, Telecom Public Notice CRTC 2008-19, Reply Comments of CBC/Radio-Canada," April 30, 2009.
- Canadian Centre for Policy Alternatives., and Marita Moll. *For Sale to the Highest Bidder : Telecom Policy in Canada*. Ottawa: Canadian Centre for Policy Alternatives, 2008.
- Canadian Conference of the Arts (CCA). "The ABC's of Advocacy," 2012.
- Canadian Conference of the Arts (CCA), and Alain Pineau. "New Media? Same Challenges. - Broadcasting Public Notice CRTC (Notice of Consultation and Hearing) 2008-11," February 17, 2009.
- . "Re: Review of the Internet Traffic Management Practices of Internet Service Providers, Telecom Public Notices CRTC 2008-19, -19-1, -19-2 (Ottawa, 20 November 2008) Notice of Consultation and Hearing," February 23, 2009.
- . "The Future Environment of Canada's Broadcasting System: Empty Pipes?," September 1, 2006. http://ccarts.ca/wp-content/uploads/2006/12/CCA_CRTC2006_72_010906.pdf.
- "Canadian Conference of the Arts | Shaping a Vibrant Future for Canada's Arts and Culture." Accessed May 23, 2013. <http://ccarts.ca/>.
- Canadian Film and Television Production Association (CFTPA). "CFTPA Opening Remarks - Net Neutrality Hearing - July 8 2009." Place du Portage Conference Centre, Gatineau, July 8, 2009.

- Canadian Film and Television Production Association (CFTPA), and John Barrack. "Re: Broadcasting Notice of Public Hearing CRTC 2008-11-1: Review of Canadian Broadcasting in New Media – Final Reply Comments," March 27, 2009.
- Canadian Film and Television Production Association (CFTPA), and Guy Mayson. "CFTPA Submission to Broadcasting Notice of Public Hearing 2008-11: Canadian Broadcasting in New Media," December 5, 2008.
- . "Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers," February 23, 2009.
- Canadian Film and Television Production Association, and Norm Bolen. "Final Comments - Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers," July 28, 2009.
- . "Reply Comments - Re: Telecom Public Notice CRTC 2008-19 – Review of the Internet Traffic Management Practices of Internet Service Providers," April 30, 2009.
- Canadian Independent Record Production Association (CIRPA), and Duncan McKie. "Re: Telecom Public Notice 2008-19 Review of the Internet Traffic Management Practices of Internet Service Providers.," February 23, 2009.
- Canadian Music Publishers Association (CMPA), and Catherine Saxberg. "RE: Broadcasting Notice of Public Hearing CRTC 2008-11," February 12, 2008.
- . "Re: Broadcasting Notice of Public Hearing CRTC 2008-19," October 2, 2009.
- Canadian Radio-television and Telecommunications Commission (CRTC). *Transcript: Review of the Internet Traffic Management Practices of Internet Service Providers*, 2009.
<http://www.crtc.gc.ca/eng/transcripts/2009/tt0708.htm>.
- Canadian Radio-television and Telecommunications Commission (CRTC), and Gouvernement du Canada. *Transcript: Public Hearing Examining New Media*. Place du Portage Conference Centre, Gatineau, 1998.
<http://crtc.gc.ca/fra/transcripts/1998/tb1204.htm>.
- Canadian Radio-television and Telecommunications Commission (CRTC), and Government of Canada. "Canadian Telecommunications Policy Review - Discussion Paper," August 17, 2005.
http://www.crtc.gc.ca/eng/publications/reports/t_review05.htm.
- Canadian Radio-television and Telecommunications Commission (CRTC)., and Government of Canada. *Transcript of Proceedings Before the Canadian Radio-television and Telecommunications Commission: Canadian Broadcasting in New Media*, 2009.
<http://www.crtc.gc.ca/eng/transcripts/2009/tb0224.html>.
- Canadian Recording Industry Association (CRIA), and Graham Henderson. "Submission Re: Broadcasting Notice of Public Hearing CRTC 2008-11 -

- Notice of Consultation and Hearing to Consider the Issues Pertaining to Canadian Broadcasting in New Media,” May 12, 2008.
- Center for Arts Management and Technology. *Arts & I.T. : Technology Adoption and Implementation in Arts Organizations*. Technology in the Arts. Carnegie Mellon University, 2011.
- Centre for Creative Community Development, Kay Oehler, Stephen C. Sheppard, Blair Benjamin, and Laurence K. Dworkin. *Network Analysis and the Social Impact of Cultural Arts Organizations*, 2007.
- Ceraso, Antonio, and Jeff Pruchnic. “Introduction: Open Source Culture and Aesthetics.” *Criticism* 53, no. 3 (2011): 337–375.
doi:10.1353/crt.2011.0026.
- Cerf, Vint. “The Open Internet.” *Telecommunications Journal of Australia* 59, no. 2 (July 2009): 18.1–18.10. doi:10.2104/tja09018.
- “Cftpa.ca.” Accessed September 28, 2012. <http://www.cftpa.ca/guide/>.
- Chandler, Annmarie, and Norie Neumark. *At a Distance: Precursors to Art and Activism on the Internet*. MIT Press, 2005.
- Cheng, A. S., K. R. Fleischmann, P. Wang, E. Ishita, and D. W. Oard. “The Role of Innovation and Wealth in the Net Neutrality Debate: A Content Analysis of Human Values in Congressional and FCC Hearings.” *Journal of the American Society for Information Science and Technology* (2012).
<http://onlinelibrary.wiley.com/doi/10.1002/asi.22646/full>.
- “CIMA: CIRPA Becomes CIMA - Name Change Reflects the New Music Business Model.” Accessed April 24, 2013. <http://www.cirpa.ca/Page.asp?PageID=122&ContentID=1716&SiteNodeID=69>.
- Clement, Andrew, Marita Moll, and Leslie Regan Shade. “Debating Universal Access in the Canadian Context: The Role of Public Interest Organizations.” *E-commerce Vs. E-Commons: Communications in the Public Interest, Ottawa: Canadian Centre for Policy Alternatives* (2001): 23–48.
- Coleman, Gabriella. “CODE IS SPEECH: Legal Tinkering, Expertise, and Protest Among Free and Open Source Software Developers.” *Cultural Anthropology* 24, no. 3 (August 2009): 420–454. doi:10.1111/j.1548-1360.2009.01036.x.
- Coles PhD, Amanda L. “Counting Canucks: Cultural Labour and Canadian Cultural Policy” (2012).
http://digitalcommons.mcmaster.ca/opensdissertations/7453/?utm_source=rss&utm_medium=rss&utm_campaign=counting-canucks-cultural-labour-and-canadian-cultural-policy.
- Conseil des arts de l’Ontario, Conseil des arts du Canada, and Hill stratégies recherche inc. *Les donateurs aux organismes artistiques et culturels au Canada*. [Ottawa]: Conseil des arts du Canada, 2004. http://epe.lac-bac.gc.ca/100/200/301/canada_council_arts/donors_arts-f/donateurs_rapport.pdf.
- “Court File No. 33884 - Factum of the Appellants.” Accessed May 21, 2013. <http://www.davidellis.ca/wp->

- content/uploads/2011/12/FM010_Appellants_Alliance-of-Canadian-Cinema-et-al.pdf.
- Cramer, F. "Digital Code and Literary Text." *Netzliteratur. Web.* (2001).
http://www.dvara.net/Hk/digital_code_and_literary_text.pdf.
- Crandall, Robert, Jeffrey Eisenach, and Allan Ingraham. "The Long-run Effects of Copper Unbundling and the Implications for Fiber." *Available at SSRN* (2012). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2018929.
- Crary, Jonathan. *Suspensions of Perception Attention, Spectacle, and Modern Culture*. Cambridge Mass.: MIT Press, 1999.
- Crawford, Kate. "Following You: Disciplines of Listening in Social Media." *Continuum* 23 (August 2009): 525–535.
 doi:10.1080/10304310903003270.
- Cray, David, and Loretta Inglis. "Strategic Decision Making in Arts Organizations." *The Journal of Arts Management, Law, and Society* 41, no. 2 (2011): 84–102.
- Cross, Edited by William. *Auditing Canadian Democracy*. UBC Press, n.d.
- "CRTC Glossary - Broadcasting in New Media." Accessed May 21, 2013.
<http://www.crtc.gc.ca/multites/mtwdk.exe?k=glossary-glossaire&l=60&w=96&n=1&s=5&t=2>.
- Cunningham, Stuart, Terry Cutler, Mark David Ryan, Greg Hearn, and Michael Keane. "From 'Culture' to 'Knowledge': An Innovation Systems Approach to the Content Industries." In *Accounting for Culture: Thinking Through Cultural Citizenship*, 104–123. University of Ottawa Press, 2005.
- "Current Publications: Information and Communications: Canadian Broadcasting Policy (2011-39-E)." Accessed June 23, 2013.
<http://www.parl.gc.ca/content/lop/researchpublications/2011-39-e.htm#ftn8>.
- De Beer, J. "Network Neutrality in the Great White North (and Its Impact on Canadian Culture)." *Telecommunications Journal of Australia* 59, no. 2 (2010). <http://www.tja.org.au/tja/index.php/tja/article/view/110>.
- DeNardis, Laura. *Protocol Politics: The Globalization of Internet Governance*. MIT Press, 2009.
- Documentary Organization of Canada, and John Christou. "Re: Broadcasting Notice of Public Hearing CRTC2008-11 Call for Comments on Canadian Broadcasting in New Media," May 12, 2008.
- . "Telecom Notice of Public Consultation and Hearing CRTC 2008-19 Call for Comments on Internet Traffic Management Practices of Internet Service Providers," February 23, 2009.
- Dorland, Michael. "Cultural Industries and the Canadian Experience: Reflections on the Emergence of a Field." In *The Cultural Industries in Canada: Problems, Policies and Prospects*. James Lorimer & Company, 1996.
- . *The Cultural Industries in Canada: Problems, Policies and Prospects*. James Lorimer & Company, 1996.

- Dornan, Christopher. "Newspaper Publishing." In *The Cultural Industries in Canada: Problems, Policies and Prospects*. James Lorimer & Company, 1996.
- . "Newspapers and Magazines: Of Crows and Finches." In *Cultural Industries. Ca: Making Sense of Canadian Media in the Digital Age*. James Lorimer Limited., Publishers, 2012.
- "DOUTEUX.TV - La Télé Des Délaissés." Accessed September 28, 2012. <http://douteux.tv/>.
- Dowler, Kevin. "The Cultural Industries Policy Apparatus." In *The Cultural Industries in Canada: Problems, Policies and Prospects*. James Lorimer & Company, 1996.
- Dubinsky, Lon. "Periodical Publishing." In *The Cultural Industries in Canada: Problems, Policies and Prospects*. James Lorimer & Company, 1996.
- Durham, Meenakshi. *Media and Cultural Studies Keywords*. Rev. ed. Malden MA: Blackwell, 2006.
- Duxbury, Nancy, Christina Johnson, Kelsey Johnson, and Erin Schultz. "Cultural Infrastructure: A Chronology of Key Developments and Contexts" (2008). <http://www.cultureandcommunities.ca/downloads/Under-construction/AppG-Chronology.pdf>.
- Ellis, David. "CIPPIC Posts 2 Damning Affidavits in Voltage 'Piracy' Fight." Blog. *Life on the Broadband Internet*, April 3, 2013. <http://www.davidellis.ca/cippic-posts-2-damning-affidavits-in-voltage-piracy-fight/#more-11390>.
- . "Com 4320 - THE ELECTRONIC INFORMATION NETWORK MARKETPLACE." Seminar, York University, Fall/Winter 2010.
- . "Et Tu, Brute? ... Aka Julius Genachowski, Data Cap Booster (2)." *Life on the Broadband Internet*, May 24, 2012. <http://www.davidellis.ca/et-tu-brute-aka-julius-genachowski-data-cap-booster-2/>.
- . "Life on the Broadband Internet." Blog. Accessed May 22, 2013. <http://www.davidellis.ca/>.
- . "Misguided Assumptions Behind the CRTC's Broadband Target (2)." *Life on the Broadband Internet*. Accessed May 22, 2013. <http://www.davidellis.ca/misguided-assumptions-behind-the-crtc-broadband-target-2/>.
- . "Must-carry TV (4): Ottawa Disconnects from the Video Revolution." *Life on the Broadband Internet*, April 20, 2013. <http://www.davidellis.ca/must-carry-tv-4-ottawa-disconnects-from-the-video-revolution/>.
- . "Open Kimonos, Closed Minds: New Risks for Canada's Internet." *Life on the Broadband Internet*, December 10, 2011. <http://www.davidellis.ca/open-kimonos-closed-minds-new-risks-for-canada%E2%80%99s-internet/>.
- Faulkner, Philip, and Jochen Runde. "On the Identity of Technological Objects and User Innovations in Function." *Academy of Management Review* 34, no. 3 (juillet 2009): 442–462.

- Feenberg, Andrew. "Critical Theory of Technology." Northeast China University, Shenyang,, 2004.
- . "Technology, Philosophy, Politics." In *Questioning Technology*, 1–17. London; New York: Routledge, 1999.
<http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=60639>.
- Filion, Michel. "Radio." In *The Cultural Industries in Canada: Problems, Policies and Prospects*. James Lorimer & Company, 1996.
- Finckenstein, Konrad von, and Canadian Radio-television and Telecommunications Commission (CRTC) Government of Canada. "Speech by Konrad von Finckenstein Q.C., to the Standing Committee on Industry, Science and Technology, Ottawa, Ontario, February 3, 2011." Speeches, February 3, 2011.
<http://www.crtc.gc.ca/eng/com200/2011/s110203.htm>.
- Finnie, Graham, Canadian Radio-television and Telecommunications Commission (CRTC) Government of Canada, and Heavy Reading. *Report: ISP Traffic Management Technologies: The State of the Art*. Reports, January 2009. <http://www.crtc.gc.ca/PartVII/eng/2008/8646/isp-fsi.htm>.
- Fitzgibbons, Lisa, and Yannick Letourneau. "DOC Oral Presentation Concerning Bell's Proposed Takeover of Astral (CRTC 2012-370)." presented at the CRTC 2012-370 - BCEpurchase of Astral, September 11, 2012.
http://docorg.ca/sites/default/files/documents/DOC_Bell_Astral_oral_presentation_Final.pdf.
- Foote, John A. "The Changing Environments of Cultural Policy and Citizenship in Canada." In *Accounting for Culture: Thinking Through Cultural Citizenship*, 91–103. University of Ottawa Press, 2005.
- Fourmentraux, J. P. "Governing Artistic Innovation: An Interface Among Art, Science and Industry." *Leonardo* 40, no. 5 (2007): 489–492.
- Fourmentraux, Jean-Paul. "Faire Œuvre Commune. Dynamiques D'attribution et de Valorisation Des Coproductions En Art Numérique." *Sociologie Du Travail* 49, no. 2 (avril 2007): 162–179. doi:10.1016/j.soctra.2007.03.006.
- . "Internet Artworks, Artists and Computer Programmers: Sharing the Creative Process." *Leonardo* 39, no. 1 (January 1, 2006): 44–34. doi:10.2307/20206149.
- Fraser, Naomi. "Creating Model Citizens for the Information Age: Canadian Internet as Civilizing Discourse Policy." *Canadian Journal of Communication* 32, no. 2 (2007). <http://cjc-online.ca/index.php/journal/article/viewArticle/1849>.
- Frau-Meigs, Divina. *From NWICO to WSIS: 30 Years of Communication Geopolitics: Actors and Flows, Structures and Divides*. Bristol, UK; Chicago, USA: Intellect, 2012.
- Galloway, Susan, and Stewart Dunlop. "A Critique of Definitions of the Cultural and Creative Industries in Public Policy." *International Journal of Cultural Policy* 13, no. 1 (2007): 17–31.

- Garnham, Nicholas. "From Cultural to Creative Industries: An Analysis of the Implications of the 'creative Industries' Approach to Arts and Media Policy Making in the United Kingdom." *International Journal of Cultural Policy* 11, no. 1 (2005): 15–29.
- Geist, Michael. "Canada's Net Neutrality Enforcement Failure." *Michael Geist*, August 7, 2011.
- Gidney, Eric. "Art and Telecommunications: 10 Years On." *Leonardo* 24, no. 2 (January 1, 1991): 147–152. doi:10.2307/1575285.
- Gielen, Pascal. "The Art Institution in a Globalizing World." *The Journal of Arts Management, Law, and Society* 40, no. 4 (November 30, 2010): 279–296. doi:10.1080/10632921.2010.525065.
- Gillespie, Tarleton. "The Politics of 'platforms'." *New Media & Society* 12, no. 3 (2010): 347–364.
- Gitelman, Lisa. *Always Already New : Media, History and the Data of Culture*. Cambridge Mass.: MIT Press, 2006.
- Goldsmith, Jack L., and Tim Wu. *Who Controls the Internet?: Illusions of a Borderless World*. Oxford University Press, 2006.
- Government of Canada. *Broadcasting Act (S.C. 1991, c. 11)*, 2012. <http://laws-lois.justice.gc.ca/eng/acts/B-9.01/page-2.html#h-4>.
- . *Broadcasting Act - Broadcasting Distribution Regulations. SOR/97-555*, 2012. <http://laws-lois.justice.gc.ca/eng/regulations/sor-97-555/page-1.html>.
- . *Telecommunications Act (S.C. 1993, c. 38)*, 2012. <http://laws-lois.justice.gc.ca/eng/acts/T-3.4/page-1.html>.
- Government of Canada, Canadian Radio-television and Telecommunications Commission (CRTC). "ARCHIVED - Call for Comments on a Request by the Governor in Council Pursuant to Section 15 of the Broadcasting Act to Prepare a Report Examining the Future Environment Facing the Canadian Broadcasting System." Notices of consultation, September 20, 2007. <http://www.crtc.gc.ca/eng/archive/2006/pb2006-72.htm>.
- . "ARCHIVED - Notice of Consultation and Hearing - 17 February 2009, in the National Capital Region - Canadian Broadcasting in New Media - Deadline for Submission of Comments: 5 December 2008." Notices of consultation, October 15, 2008. <http://www.crtc.gc.ca/eng/archive/2008/n2008-11.htm>.
- . *ARCHIVED - Transcript of Proceeding - Review of Billing Practices for Wholesale Residential High Speed Access Services - Notice of Consultation CRTC 2011-77 - 12 July 2011*, 2011. <http://www.crtc.gc.ca/eng/transcripts/2011/tt0712.html>.
- . "Broadcasting Regulatory Policy CRTC 2009-329 (Review of Broadcasting in New Media)." Regulatory policies, June 4, 2009. <http://www.crtc.gc.ca/eng/archive/2009/2009-329.htm>.
- . "CRTC Communications Monitoring Report 2012." Reports, September 4, 2012.

- http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2012/cm_r4.htm.
- . “CRTC Origins,” December 12, 2008.
<http://www.crtc.gc.ca/eng/backgrnd/brochures/b19903.htm>.
- . “Navigating Convergence: Charting Canadian Communications Change and Regulatory Implications.” Reports, February 9, 2010.
<http://www.crtc.gc.ca/eng/publications/reports/rp1002.htm>.
- . “Results of the Fact-finding Exercise on the Over-the-top Programming Services.” Reports, October 3, 2011.
<http://www.crtc.gc.ca/eng/publications/reports/rp1110.htm#ftn2>.
- . “Telecom Regulatory Policy CRTC 2009-657 (Review of the Internet Traffic Management Practices of Internet Service Providers).” Regulatory policies, October 21, 2009. <http://www.crtc.gc.ca/eng/archive/2009/2009-657.htm>.
- Government of Canada, Office of the Privacy Commissioner of, and Jennifer Stoddart. “Submission of the Office of the Privacy Commissioner of Canada to the Canadian Radio-television and Telecommunication Commission (CRTC): Re: Telecom Public Notice CRTC 2008-19 - Review of the Internet Traffic Management Practices of Internet Service Providers; CRTC Reference: 8646-C12-200815400,” February 18, 2009.
http://www.priv.gc.ca/information/research-recherche/sub/sub_crtc_090218_e.asp#_edn10.
- Government of Canada, Statistics Canada. “National Survey of Non-profit and Voluntary Organizations (NSNVO).” Accessed April 23, 2013.
<http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SurvId=21115&SurvVer=1&SDDS=5023&InstaId=21925&InstaVer=1&lang=en&db=imdb&adm=8&dis=2>.
- Greenberg, J. “Building Communicative Capacity in the Third Sector: Research from Canada.” *Third Sector Review* 14, no. 2 (2008): 51–74.
- Grindon, Gavin. “Art & Activism.” *Art Monthly* no. 333 (2010): 9–12.
- Hackett, R. A., and S. Anderson. “Democratic Media Reform in Canada - Campaigns, Coalitions Aim to Democratize Media System.” *Canadian Center for Policy Alternatives*, July 1, 2010.
<http://www.policyalternatives.ca/publications/monitor/democratic-media-reform-canada>.
- Hackett, Robert. “Taking Back the Media: Notes on the Potential for a Communicative Democracy Movement.” *Studies in Political Economy* 63, no. 0 (2000).
<https://twpl.library.utoronto.ca/index.php/spe/article/view/6726>.
- Hackett, Robert, and Megan Adam. “Is Media Democratization a Social Movement?” *Peace Review* 11, no. 1 (1999): 125–131.
doi:10.1080/10402659908426240.
- Hansen, Mark B. N. “Media Theory.” *Theory, Culture & Society* 23, no. 2–3 (May 1, 2006): 297–306. doi:10.1177/026327640602300256.

- Haraway, Donna Jeanne. "The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others." In *The Haraway Reader*. Routledge, 2004.
- Harbers, Hans. "Co-Production, Agency and Normativity." In *Inside the Politics of Technology: Agency and Normativity in the Co-production of Technology and Society*, 9–25. Amsterdam: Amsterdam University Press, 2005.
- Hass, Douglas A. *The Never-Was-Neutral Net and Why Informed End Users Can End the Net Neutrality Debates*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network. Accessed July 3, 2013. <http://papers.ssrn.com/abstract=957373>.
- Heller, Gregory. "Bleep.com's DRM Free Digital Music Store Wins 'BEST MUSIC STORE' at Digital Music Awards." *Defective by Design*, October 10, 2006. <http://www.defectivebydesign.org/blog/878>.
- Hesmondhalgh, David. "Cultural and Creative Industries" (2008). <http://eprints.whiterose.ac.uk/42752/>.
- Hesmondhalgh, David, and Andy C. Pratt. "Cultural Industries and Cultural Policy." *International Journal of Cultural Policy* 11, no. 1 (2005): 1–13.
- Hintz, A., and S. Milan. "User Rights for the Internet Age: Communications Policy According to 'Netizens'." *The Handbook of Global Media and Communication Policy* (2011): 230–241.
- Hintz, Arne, and Stefania Milan. "At the Margins of Internet Governance: Grassroots Tech Groups and Communication Policy." *International Journal of Media & Cultural Politics* 5, no. 1–2 (2009): 1–2.
- . "Struggling for Open Information Environments: Civil Society Initiatives for Media Policy Change." In *Proceedings of the 2012 iConference*, 325–331. iConference '12. New York, NY, USA: ACM, 2012. doi:10.1145/2132176.2132218.
- . "User Rights for the Internet Age: Communications Policy According to 'Netizens'." In *The Handbook of Global Media and Communication Policy*, edited by Robinnsell and rc Raboy, 230–241. Wiley-Blackwell, 2011. <http://onlinelibrary.wiley.com/doi/10.1002/9781444395433.ch14/summary>.
- "History | Canadian Conference of the Arts." Accessed May 23, 2013. <http://ccarts.ca/about-the-cca/history/>.
- "How the 'Net Works: An Introduction to Peering and Transit." *Ars Technica*. Accessed May 22, 2013. <http://arstechnica.com/features/2008/09/peering-and-transit/>.
- Hughes, J., and K. Lang. "Transmutability: Digital Decontextualization, Manipulation, and Recontextualization as a New Source of Value in the Production and Consumption of Culture Products." In *System Sciences, 2006. HICSS '06. Proceedings of the 39th Annual Hawaii International Conference On*, 8:165a, 2006. doi:10.1109/HICSS.2006.511.
- Hunter, Dan. "Culture War." *Texas Law Review* 83 (2005 2004): 1105.

- Huws, Ursula. "Nature, Technology and Art: The Emergence of a New Relationship?" *Leonardo* 33, no. 1 (2000): 33–40.
- Imagine Canada. "National Survey of Nonprofit & Voluntary Organizations | Nonprofit Library Commons." Accessed October 16, 2012.
http://library.imaginecanada.ca/sector_research/statistics/nsnvo.
- Independent Film & Television Alliance (IFTA), and Susan Cleary. "Re: Public Notice 2008-19 - Review of the Internet Traffic Management Practices of Internet Service Providers. Reference No. 8646-C12-200815400," February 23, 2009.
- Inkinen, Sam. "The Internet, 'Data Highways' and the Information Society. A Comment on the Rhetoric of the Electronic Sublime." In *Mediapolis: Aspects of Texts, Hypertexts and Multimedial Communication*. Walter de Gruyter, 1999.
- Jackson, Joseph, and René Lemieux. *The Arts and Canada's Cultural Policy (93-3e)*. Parliamentary Information and Research Service. Library of Parliament, October 1999.
<http://www.parl.gc.ca/Content/LOP/researchpublications/933-e.htm>.
- Jeannotte, M. Sharon. *Timeline of Federal Cultural Policy Milestones : 1849 - 2005*. Observatoire culturel Canadien, September 2006.
<http://www.sciencesociales.uottawa.ca/governance/eng/documents/timeline.pdf>.
- Jordan, Scott, and Arijit Ghosh. "A Framework for Classification of Traffic Management Practices as Reasonable or Unreasonable." *ACM Transactions on Internet Technology (TOIT)* 10, no. 3 (2010): 12.
- June Wang, Susan Nelson, and Ann McQueen. *Arts Service Organizations: A Study of Impact and Capacity*. The Boston Foundation, 2005.
<https://folio.iupui.edu/bitstream/handle/10244/741/ASO%20Rpt%2007-11.pdf?sequence=2>.
- Kidd, Dustin. "Democratic Practices in Arts Organizations." *The Journal of Arts Management, Law, and Society* 38, no. 4 (2009): 296–309.
- Kirchner, Theresa A., Edward P. Markowski, and John B. Ford. "Relationships Among Levels of Government Support, Marketing Activities, and Financial Health of Nonprofit Performing Arts Organizations." *International Journal of Nonprofit and Voluntary Sector Marketing* 12, no. 2 (2007): 95–116. doi:10.1002/nvsm.285.
- Koumartzis, Nikolaos, and Andreas Veglis. "Internet Regulation: The Need for More Transparent Internet Filtering Systems and Improved Measurement of Public Opinion on Internet Filtering." *First Monday* 16, no. 10 (October 2, 2011).
<http://firstmonday.org/ojs/index.php/fm/article/view/3266>.
- "La Cinémathèque Québécoise." Accessed September 28, 2012.
<http://www.cinematheque.qc.ca/>.
- Lacroix, Jean-Guy. "Pour Une Théorie Des Industries Culturelles." *Cahiers de Recherche Sociologique* 4, no. 2 (1986): 5–18.

- Larabie, Christine L. "Net Neutrality and the Public Interest: A Comparative Analysis of Canada, the UK, Australia and Japan" (2010). http://digitalcommons.mcmaster.ca/cmst_grad_research/7/.
- Lardeux, Anne, Suzanne Beth, and L. KALAORA. *La Part Du Reste: Pour Une Économie de La Contribution. Un Entretien Avec Bernard Stiegler*. Altérités, 2011. http://www.alterites.ca/vol8no1/pdf/STIEGLER_81.pdf.
- Latour, Bruno. *Pandora's Hope: Essays on the Reality of Science Studies*. Harvard University Press, 1999.
- . *Reassembling the Social: An Introduction to Actor-Network-Theory*. OUP Oxford, 2007.
- Law, John. "Actor Network Theory and Material Semiotics." In *The New Blackwell Companion to Social Theory*. John Wiley & Sons, 2009.
- Legault, Raymond, Luc Fortin, Mario Chénart, Brunhilde Pradier, and Jean-Pierre Lefebvre. "Intervention Conjointe de l'AQTIS, l'ARRQ, La GMMQ, La SARTEC, La SODRAC, La SPACQ et de l'UDA Aux Audiences Du CRTC 2008-11," February 18, 2009.
- Legislative Services Branch. "Consolidated Federal Laws of Canada, Telecommunications Act," June 29, 2012. <http://laws-lois.justice.gc.ca/eng/acts/t-3.4/page-2.html>.
- Leiner, Barry M., Vint Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Larry G Roberts, and Stephen Woff. "Brief History of the Internet - Internet Timeline | Internet Society." *Internet Society*. Accessed July 8, 2013. <http://www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet>.
- Lentz, Becky. "Does 'Deep Packet Inspection' Turn You On?" *Flow Tv*, January 9, 2010.
- Lentz, Roberta C., and Leslie Regan Shade. "Democratizing Communication Policy in the Americas: Why It Matters." *Canadian Journal of Communication* 36, no. 1 (March 2011): 3–9.
- Lithgow, Michael. "Myth-busting the Internet: The Truth About Throttling, Congestion and Usage-based Billing." *Art Threat*, June 2, 2011. <http://artthreat.net/2011/06/internet-throttling-congestion-net-neutrality-ubb-crtc/>.
- Lorimer, Rowland, Mike Gasher, and David Skinner. *Mass Communication in Canada*. Sixth Edition. Oxford University Press, 2007.
- Mac Sithigh, Daithi. "Regulating the Medium: Reactions to Network Neutrality in the European Union and Canada." *Journal of Internet Law* 14, no. 8 (2011): 3–14.
- Magder, Ted. "Film and Video Production." In *The Cultural Industries in Canada: Problems, Policies and Prospects*. James Lorimer & Company, 1996.
- "Making Culture." *OpenMedia.ca*. Accessed September 28, 2012. <http://www.openmedia.ca/plan/canadian-culture/making>.

- Measurement Lab (MLab). "Using Network Data to Detect Dpi." <*The Network Is Aware*> *Social Science Research on Deep Packet Inspection*. Accessed July 3, 2013. <http://dpi.ischool.syr.edu/MLab-Data.html>.
- Mehta, Alok. "Data Caps Could Cut Artists Off from the Cloud | NAMAC." *National Alliance for Media Arts and Culture*, July 26, 2011. <http://namac.org/node/25824>.
- "Michael Geist - Canada's Net Neutrality Enforcement Failure." Accessed September 28, 2012. <http://www.michaelgeist.ca/content/view/5918/159/>.
- "Michael Geist - CRTC New Media Hearings - Day One: CCA, ACTRA, DGC, APFTQ, APFC." Accessed April 4, 2013. <http://www.michaelgeist.ca/content/view/3680/125/>.
- "Microsoft Word - New Media Hearing Speaking Notes 17 02 09 - NewMediahearingSpeakingnotes170209.pdf," n.d.
- Moll, Marita, Leslie Regan Shade, and Canadian Centre for Policy Alternatives. *The Internet Tree : the State of Telecom Policy in Canada 3.0*. Ottawa: Canadian Centre for Policy Alternatives, 2011.
- Mueller, M., J. Mathiason, and H. Klein. "Internet and Global Governance: Principles and Norms for a New Regime, The." *Global Governance* 13 (2007): 237.
- Mueller, Milton. *Reinventing Media Activism: Public Interest Advocacy in the Making of U.S. Communication-Information Policy, 1960-2002*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, September 7, 2004. <http://papers.ssrn.com/abstract=586625>.
- . *Ruling the Root : Internet Governance and the Taming of Cyberspace*. Cambridge Mass.: MIT Press, 2002.
- Mueller, Milton, and Hadi Asghari. *Deep Packet Inspection and Bandwidth Management: Battles Over Bittorrent in Canada and the United States*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, 2011. <http://papers.ssrn.com/abstract=1989644>.
- Mueller, Milton, and Becky Lentz. "Revitalizing Communication and Information Policy Research." *The Information Society* 20, no. 3 (July 2004): 155–157. doi:10.1080/01972240490456773.
- Mueller, Milton, John Mathiason, and Hans Klein. "The Internet and Global Governance: Principles and Norms for a New Regime." *Global Governance: A Review of Multilateralism and International Organizations* 13, no. 2 (2007): 237–254.
- Mueller, Milton, Christiane Pagé, and Brenden Kuerbis. "Civil Society and the Shaping of Communication–Information Policy: Four Decades of Advocacy." *The Information Society* 20, no. 3 (2004): 169–185. doi:10.1080/01972240490456845.
- Mulcahy, Kevin. "Cultural Policy: Definitions and Theoretical Approaches." *The Journal of Arts Management, Law, and Society* 35, no. 4 (January 1, 2006): 319–330. doi:10.3200/JAML.35.4.319-330.

- Napoli, Philip M. "Bridging Cultural Policy and Media Policy." *The Journal of Arts Management, Law, and Society* 37, no. 4 (2008): 311–332. doi:10.3200/JAML.47.4.311-332.
- . "Public Interest Media Activism and Advocacy as a Social Movement: A Review of the Literature" (2007). http://fordham.bepress.com/mcgannon_working_papers/21/?utm_source=fordham.bepress.com%2Fmcgannon_working_papers%2F21&utm_medium=PDF&utm_campaign=PDFCoverPages.
- Netta, Iivari. "Discursive Construction of 'user Innovations' in the Open Source Software Development Context." *Information and Organization* 20, no. 2 (avril 2010): 111–132. doi:10.1016/j.infoandorg.2010.03.002.
- "News | DOC | Documentary Organization of Canada." Accessed September 28, 2012. <http://www.docorg.ca/fr>.
- Nowak, Peter. "Tests Show CRTC's Anti-throttling Rules Are Useless." *WordsByNowak*, August 17, 2012. <http://wordsbynowak.com/2012/08/17/isp-throttling/>.
- Nurse, Andrew. "Artists, Society, and Activism: The Federation of Canadian Artists and the Social Organization of Canadian Art." *Southern Journal of Canadian Studies* 4, no. 1 (June 2011): 24p.
- Onyx, Jenny, and Madi Maclean. "Careers in the Third Sector." *Nonprofit Management and Leadership* 6, no. 4 (1996): 331–345. doi:10.1002/nml.4130060404.
- Orlikowski, Wanda J. "The Duality of Technology: Rethinking the Concept of Technology in Organizations." *Organization Science* 3, no. 3 (1992): 398–427.
- . "The Sociomateriality of Organisational Life: Considering Technology in Management Research." *Cambridge Journal of Economics* 34, no. 1 (January 1, 2010): 125–141. doi:10.1093/cje/bep058.
- Paré, Daniel J. "Telecommunications: Plus ça Change, Plus C'est La Même Chose?" In *Cultural Industries. Ca: Making Sense of Canadian Media in the Digital Age*. James Lorimer Limited., Publishers, 2012.
- Perlmutter, Tom. "COMMENTS ON CANADIAN BROADCASTING IN NEW MEDIA," n.d.
- Perry, M., and T. Margoni. "Interpreting Network Discrimination in the CRTC and FCC." In *Fourth International Conference on Digital Society, 2010. ICDS '10*, 301–306, Feb. doi:10.1109/ICDS.2010.53.
- Petersen, Søren Mørk. "Mundane Cyborg Practice Material Aspects of Broadband Internet Use." *Convergence: The International Journal of Research into New Media Technologies* 13, no. 1 (February 1, 2007): 79–91. doi:10.1177/1354856507072859.
- Pinch, Trevor. "On Making Infrastructure Visible: Putting the Non-humans to Rights." *Cambridge Journal of Economics* (January 1, 2009). doi:10.1093/cje/bep044.
- "Policy Matters." Accessed May 24, 2013. http://www.wgc.ca/position_papers/policy_matters.html.

- Poster, Mark. "Postmodern Virtualities." *FutureNatural: Nature, Science, Culture* (1996): 183–202.
- Pyyhtinen, Olli, and Sakari Tamminen. "We Have Never Been Only Human: Foucault and Latour on the Question of the Anthropos." *Anthropological Theory* 11, no. 2 (2011): 135–152.
- Rabinovitch, Victor. "Four 'Constants' in Canadian Cultural Policy | Research and Collections." *Canadian Museum of Civilization*, October 2007. <http://www.civilization.ca/research-and-collections/research/resources-for-scholars/essays-1/cultures/victor-rabinovitch/four-constants-in-canadian-cultural-policy/>.
- Raboy, Marc. "A Challenge for Public Policy." *Street Protests and Fantasy Parks: Globalization, Culture, and the State* (2002): 109.
- . "Cultural Sovereignty, Public Participation, and Democratization of the Public Sphere: The Canadian Debate on the New Information Infrastructure." *National Information Infrastructure Initiatives Vision and Policy Design* (1997): 190–216.
- . *Missed Opportunities the Story of Canada's Broadcasting Policy*. Montreal; Buffalo: McGill-Queen's University Press, 1990. <http://hdl.handle.net/2027/heb.06827>.
- . "Public Television." In *The Cultural Industries in Canada: Problems, Policies and Prospects*. James Lorimer & Company, 1996.
- . "Rethinking Broadcasting Policy in a Global Media Environment." *Broadcasting & Convergence. New Articulations of the Public Service Remit. Nordicom, Göteborg* (2003): 41–55.
- . "The Role of Public Consultation in Shaping the Canadian Broadcasting System." *Canadian Journal of Political Science* 28, no. 3 (1995): 455–477.
- "RÉSEAU ART ACTUEL -:- Organisation." Accessed September 28, 2012. <http://www.rcaa.qc.ca/html/fr/organisation.php>.
- Réseau Art Actuel du Québec (RAAQ), and Réseau des Centres d'Artistes Autogérés du Québec (RCAAQ). "Accroître L'avantage Artistique Du Canada Par Le Numérique," July 6, 2010. <http://www.ic.gc.ca/eic/site/028.nsf/eng/00459.html>.
- "Review of the Internet Traffic Management Practices of Internet Service Providers (Canada) | Mapping Global Media Policy." Accessed September 28, 2012. <http://www.globalmediapolicy.net/node/221>.
- Riis, Søren. "The Symmetry Between Bruno Latour and Martin Heidegger The Technique of Turning a Police Officer into a Speed Bump." *Social Studies of Science* 38, no. 2 (2008): 285–301.
- Roberts, Ben. "Against the 'Networked Information Economy': Rethinking Decentralization, Community, and Free Software Development." *Criticism* 53, no. 3 (2011): 385–405. doi:10.1353/crt.2011.0023.
- Rodgers, T. "On the Process and Aesthetics of Sampling in Electronic Music Production." *Organised Sound* 8, no. 3 (2003): 313–320.

- Russell, A. L. "'Rough Consensus and Running Code' and the Internet-OSI Standards War." *Annals of the History of Computing, IEEE* 28, no. 3 (2006): 48–61.
- Shade, Leslie Regan. "Media Reform in the United States and Canada: Activism and Advocacy for Media Policies in the Public Interest." In *The Handbook of Global Media and Communication Policy*, edited by Robinnsell and rc Raboy, 147–165. Wiley-Blackwell, 2011.
<http://onlinelibrary.wiley.com/doi/10.1002/9781444395433.ch9/summary>.
- Sherman, Tom. "Artists' Behaviour in the First Decade." In *Accounting for Culture: Thinking Through Cultural Citizenship*, 82–88. University of Ottawa Press, 2005.
- Siles, Ignacio, and Pablo Boczkowski. "At the Intersection of Content and Materiality: A Texto-Material Perspective on the Use of Media Technologies." *Communication Theory* 22, no. 3 (2012): 227–249.
 doi:10.1111/j.1468-2885.2012.01408.x.
- Society of Composers, Authors and Music Publishers of Canada v. Canadian Assn. of Internet Providers- 2004 SCC 45, 2 SCR 427 (SCC 2004).
- Society of Composers, Authors and Music Publishers of Canada (SOCAN), and Paul Spurgeon. "Re: Broadcasting Public Notice CRTC PN 2008-11 SOCAN Submission on Canadian Broadcasting in New Media," May 12, 2008.
- "Speech by Konrad von Finckenstein Q.C., February 3, 2011, Ottawa, Ontario." Accessed October 20, 2011.
<http://www.crtc.gc.ca/eng/com200/2011/s110203.htm>.
- Stern, Mark J., and Susan C. Seifert. *Arts-based Social Inclusion: An Investigation of Existing Assets and Innovative Strategies to Engage Immigrant Communities in Philadelphia*. William Penn Foundation, September 2010.
http://www.sp2.upenn.edu/siap/docs/social_inclusion/final_report.pdf.
- Stiegler, Bernard. "Die Aufklärung in the Age of Philosophical Engineering." Lyon, France, 2012. <http://www.iri.centrepompidou.fr/wp-content/uploads/2011/02/Stiegler-The-Aufkl%C3%A4rung-x.pdf>.
- . "RELATIONAL ECOLOGY AND THE DIGITAL PHARMAKON." *Culture Machine* 13 (2012). <http://www.google.ca/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CDAQFjAA&url=http%3A%2F%2Fwww.culturemachine.net%2Findex.php%2Fcm%2Farticle%2FviewDownloadInterstitial%2F464%2F501&ei=7gHRUdCIHqn0gHi34G4CQ&usg=AFQjCNHihYOkxUPT8aaKT41Bm87sr6fMFw&sig2=3rEqUjTnrV1UsUVEJLQ2Ig&bv m=bv.48572450,d.dmQ&cad=rja>.
- . "Suffocated Desire, or How the Cultural Industry Destroys the Individual: Contribution to a Theory of Mass Consumption." *Trans. Johann Rossouw, Parrhesia: A Journal of Critical Philosophy* 13 (2011): 59.

- . *Technics and Time, 1: The Fault of Epimetheus*. Stanford University Press, 1998.
- . “Technics of Decision an Interview.” *Angelaki* 8, no. 2 (2003): 151–168. doi:10.1080/0969725032000162639.
- Stratford Institute for Digital Media, and Ian E. Wilson. *Reflections -The Stratford Report 2012 -Arts and Culture and the Digital Crossroads*. Stratford, Ontario. Accessed June 24, 2013. http://stratfordinstitute.ca/wp-content/uploads/2012/04/stratford_report_2012.pdf.
- Stratford Institute for Digital Media, Ian E. Wilson, and Edgar Cowan. *A Personal Perspective - “To Be Or Not to Be” in The Stratford Report 2012 -Arts and Culture and the Digital Crossroads*. Stratford, Ontario. Accessed June 24, 2013. http://stratfordinstitute.ca/wp-content/uploads/2012/04/stratford_report_2012.pdf.
- Straw, Will. “Sound Recording.” In *The Cultural Industries in Canada: Problems, Policies and Prospects*. James Lorimer & Company, 1996.
- “Study: 96 Percent of Arts Organizations Are Active On Social Media Networks - SocialTimes.” Accessed September 28, 2012. http://socialtimes.com/study-96-percent-of-arts-organizations-are-active-on-social-media-networks_b98673.
- Sutherland, Richard. “Sound Recording and Radio: Intersections and Overlaps.” In *Cultural Industries. Ca: Making Sense of Canadian Media in the Digital Age*. James Lorimer Limited., Publishers, 2012.
- “Système de classification des activités de la culture et des communications du Québec 2004.” Observatoire de la Culture et des Communications du Québec, November 2003. http://www.stat.gouv.qc.ca/observatoire/publicat_obs/class_act_cult2004.htm.
- Taylor, Gregory. “Shut-Off: The Digital Television Transition in the United States and Canada.” *Canadian Journal of Communication* 35, no. 1 (2010). <http://www.cjc-online.ca/index.php/journal/article/viewArticle/2235>.
- Taylor, Kate. “How Tom Perlmutter Turned the NFB into a Global New-media Player.” *The Globe and Mail*, May 18, 2013. <http://www.theglobeandmail.com/arts/film/how-tom-perlmutter-turned-the-nfb-into-a-global-new-media-player/article11992885/>.
- “Tests Show CRTC’s Anti-throttling Rules Are Useless.” *WordsByNowak*. Accessed April 6, 2013. <http://wordsbynowak.com/2012/08/17/isp-throttling/>.
- “The Arts and Canada’s Cultural Policy (93-3e).” Accessed October 16, 2012. <http://www.parl.gc.ca/Content/LOP/researchpublications/933-e.htm#8.%20Tax-t>.
- “The Canadian Film Centre :: What We Show & Fund - TELUS Innovation Fund.” Accessed September 28, 2012. http://cfccreates.com/what_we_show_and_fund/telus_innovation_fund/index.php.

- The Canadian Independent Record Production Association (CIRPA), (CIMA), and Brian Chater. "Re: Broadcasting Notice of Public Hearing 2008-11 : Canadian Broadcasting in New Media," December 2008.
http://www.cimamusic.ca/Page.asp?PageID=122&ContentID=1522&SiteNodeID=281&AA_PrintFriendlyMode=True.
- Thomas, Terrence J. *Bill C-55: An Act Respecting Advertising Services Supplied by Foreign Periodical Publishers (LS323e)*, October 28, 1998. Parliament of Canada.
http://www.parl.gc.ca/About/Parliament/LegislativeSummaries/Bills_ls.asp?ls=C55&Parl=36&Ses=1.
- Todt, Oliver, and José Luis Luján. "A New Social Contract for Technology? – On the Policy Dynamics of Uncertainty." *Journal of Risk Research* 11, no. 4 (June 2008): 509–523. doi:10.1080/13669870701875735.
- "UNESCO Universal Declaration on Cultural Diversity: UNESCO." Accessed April 9, 2013. http://portal.unesco.org/en/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html.
- Upchurch, Anna. "Linking Cultural Policy from Great Britain to Canada." *International Journal of Cultural Policy* 13, no. 3 (2007): 239–254. doi:10.1080/10286630701556407.
- Urquhart, Peter. "Film and Television: A Success?" In *Cultural Industries. Ca: Making Sense of Canadian Media in the Digital Age*. James Lorimer Limited., Publishers, 2012.
- USCAnnenberg. *International Seminar on Network Theory Keynote - Bruno Latour - YouTube*, 2010. <https://www.youtube.com/watch?v=Bj7EDMRJrbU>.
- Verhaeghe, Dan. "Canarie's Fibre Optic Cable Network Is 60,000 Times Faster Than Average Household Broadband - Techvibes.com." *TechVibes*, 18042012. <http://www.techvibes.com/blog/canaries-fibre-optic-cable-network-is-60000-times-faster-than-average-household-broadband-2012-04-18>.
- Vestheim, Geir. "Cultural Policy and Democracy: An Introduction." *International Journal of Cultural Policy* 18, no. 5 (2012): 493–504.
- . "Cultural Policy-making: Negotiations in an Overlapping Zone Between Culture, Politics and Money." *International Journal of Cultural Policy* 18, no. 5 (2012): 530–544.
- Voyce, Stephen. "Toward an Open Source Poetics: Appropriation, Collaboration, and the Commons." *Criticism* 53, no. 3 (2011): 407–438. doi:10.1353/crt.2011.0025.
- Waddell, Stephen, Alliance of Canadian Cinema, Television and Radio, and Artists (ACTRA). "Telecom Public Notice CRTC 2008-19 Review of the Internet Traffic Management Practices of Internet Service Providers," February 23, 2009.

- Wagman, Ira, and Peter Urquhart. *Cultural Industries. Ca: Making Sense of Canadian Media in the Digital Age*. James Lorimer Limited., Publishers, 2012.
- Wagman, Ira, Peter Urquhart, and Olivier Côté. "Using Production Studies to Analyze Canada: A People's History." In *Cultural Industries. Ca: Making Sense of Canadian Media in the Digital Age*. James Lorimer Limited., Publishers, 2012.
- Wagman, Ira, Peter Urquhart, and Zoe Druick. "Continuity and Change in the Discourse of Canada's Cultural Industries." In *Cultural Industries. Ca: Making Sense of Canadian Media in the Digital Age*. James Lorimer Limited., Publishers, 2012.
- Wajcman, Judy. "Feminist Theories of Technology." *Cambridge Journal of Economics* 34, no. 1 (January 1, 2010): 143–152. doi:10.1093/cje/ben057.
- Wajcman, Judy. "Addressing Technological Change: The Challenge to Social Theory." *Current Sociology* 50, no. 3 (May 1, 2002): 347–363. doi:10.1177/0011392102050003004.
- Wallsten, Scott, and Stephanie Hausladen. "Net Neutrality, Unbundling, and Their Effects on International Investment in Next-generation Networks." *Review of Network Economics* 8, no. 1 (2009). <http://www.degruyter.com/view/j/rne.2009.8.1/rne.2009.8.1.1171/rne.2009.8.1.1171.xml>.
- Warren, Mark E. "Chapter Five: The Associational Terrain: Distinctions That Make a Difference." In *Democracy and Association*. Princeton University Press, 2001.
- . In *Democracy and Association*. Princeton University Press, 2001.
- Williams, Raymond. "Culture." In *Keywords: A Vocabulary of Culture and Society*. Oxford University Press, 1985.
- Winner, Langdon. "Do Artifacts Have Politics?" *Daedalus* 109, no. 1 (1980): 121–136.
- . *The Whale and the Reactor: A Search for Limits in an Age of High Technology*. University of Chicago Press, 2010.
- . "Upon Opening the Black Box and Finding It Empty: Social Constructivism and the Philosophy of Technology." *Science, Technology, & Human Values* 18, no. 3 (1993): 362–378.
- Winseck, Dwayne. "A Social History of Canadian Telecommunications." *Canadian Journal of Communication* 20, no. 2 (1995). <http://www.cjc-online.ca/index.php/journal/article/view/863>.
- . "Critical Media Research Methods: Media Ownership and Concentration." In *Cultural Industries. Ca: Making Sense of Canadian Media in the Digital Age*. James Lorimer Limited., Publishers, 2012.
- . "CRTC's New Telecom-Media-Internet Vertical Integration Rules and Elephants in the Room." *Mediamorphis*, September 2011. <http://dwmw.wordpress.com/2011/09/21/crtcs-new-telecom-media-internet-vertical-integration-rules-and-elephants-in-the-room/>.

- . “The Anatomy of Internet Service Provider Responsibility: Three-Strikes Copyright Law Comes to New Zealand.” *Mediamorphis*, June 11, 2011. <http://dwmw.wordpress.com/2011/11/06/the-anatomy-of-internet-service-provider-responsibility-three-strikes-copyright-law-comes-to-new-zealand/>.
- Writers Guild of Canada (WGC), “Policy Matters - Current Priorities,” *Writer’s Guild of Canada*, accessed May 24, 2013, http://www.wgc.ca/position_papers/policy_matters.html.
- Wu, Tim. *The Master Switch : the Rise and Fall of Information Empires*. New York: Alfred A. Knopf, 2010.
- Wu, Tim, and Christopher Yoo. *Keeping the Internet Neutral?: Tim Wu and Christopher Yoo Debate*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, January 12, 2007. <http://papers.ssrn.com/abstract=953989>.
- Yanow, D. “The Communication of Policy Meanings: Implementation as Interpretation and Text.” *Policy Sciences* 26, no. 1 (1993): 41–61.