# TECHNOLOGY, PRIVACY, AND DIGITAL CITIZENSHIP:

# A CRITICAL ANALYSIS OF FACEBOOK AS AN EDUCATIONAL RESOURCE

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## Abstract

From an educational perspective, social networking sites have received ambiguous reviews. By some they are criticized for posing personal risks while others applaud their rich learning opportunities. In either case, solutions to risks of engagement tend to focus on matters of use. Eliciting critical theory of technology, this study reorients this focus to the politics of technological design. The purpose of this study was to generate insights with respect to what a critical analysis of the Facebook social networking site might yield for citizenship education. Based on a single embedded case study, the results demonstrate how commercial values underlie the site's design where a narrow definition of privacy informs practices that favour corporate interests and undermine privacy as a social good. It calls for educational practices that equip young citizens to question the technologies with which they engage and democratically participate in shaping technologies that might better reflect the public interest.

## Résumé

Dans une perspective éducative, les sites de réseautage social ont reçu des réactions ambiguës. Par les uns, ils sont critiqués pour avoir posé des risques aux individus, tandis que d'autres applaudissent leurs riches possibilités d'apprentissage. Dans les deux cas, des solutions aux risques liés à la participation ont tendance à se concentrer sur les questions d'utilisation. Suscitant la théorie critique de la technologie, cette étude réaligne cette orientation à la politique de la conception technologique. Le but de cette étude était de dégager une compréhension de ce qu'une analyse critique, du site de réseautage social Facebook, pourrait offrir à lenseignement des valeurs de citoyenneté. Fondé sur une seule étude de cas intégrée, les résultats démontrent comment les valeurs commerciales sous-tendent la conception du site, où une définition étroite de la vie privée renseignes les pratiques qui favorisent les intérêts des entreprises et amoindri la notion de vie privée comme bien social. Cela exige des pratiques éducatives qui équipent les jeunes citoyens à questionner les technologies avec lesquelles ils s'engagent et à participer démocratiquement à l'élaboration de technologies qui pourraient mieux répondre à l'intérêt public.

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# Chapter One - Introduction

## Background

In spite of its overwhelming popularity reflected in a membership of over 200 million (Facebook, 2009e), reviews of the Facebook social networking site have not all been positive. Reactions have ranged from ambiguous to polar and the policy decisions within the educational context provide a marked example of this mixed response. On the one hand, it seems to have become somewhat fashionable for education institutions to ban, or at least partially restrict, student access to social networking sites. The practice is fairly common in the UK where many state schools "[view] them as either housing inappropriate content or being a waste of time" (Digizen, n.d., p. 18). In November 2008, the New Brunswick Department of Education also imposed a ban on accessing Facebook during school hours. Valerie Kilfoil, a department spokeswoman, cited not only the lack of educational content offered by the site but also student privacy and safety concerns as justification for the province wide ban ("N.B. bans Facebook," 2008). Further, in September 2008, Montréal's Concordia University blocked access to Facebook on its campus computers implicating it as a security risk to the university's desktop network ("Concordia bans Facebook," 2008).

On the other hand, social networking sites are viewed by some as a rich educational resource. June 2008 saw the release of a UK government funded report by Digizen, a project of the non-profit organization, Childnet International. Digizen aims to support youth to engage in safe online practices while using the internet to participate in, and contribute to, positive changes in their world. To this end, the report claims that social networking sites, such as Facebook, afford a range of valuable teaching and learning opportunities including "issues around digital literacy and social engagement, ... identity development, and opportunities for better understanding e-safety and data management issues" (Digizen, n.d., p. 3). Further, the report, along with studies by danah boyd (2008), Davies and Cranston (2008), and Brendesha Tynes (2007), states that simply blocking the sites does not in itself protect young people. Rather, such practices indicate a failure to recognise their educational value, which, as these researchers argue,

includes the learning opportunities relating to online personal safety, risk management and social development.

## Statement of problem

Although the debate highlighted above relates specifically to the educational value of social networking sites, it is indicative of the contested role of technology more generally within the realm of education. Such debates generally assess technologies as simply good or bad and see the solutions to any untoward potential consequences as resting in the restriction of use or in practices of responsible and informed use. As such, they underscore a challenge faced by contemporary educators: the mounting pressure to incorporate technology into their educational programmes without sufficient guidance to assess technologies from a more critically informed vantage point.

This project sets out to address the deficit of critically informed resources. From a perspective informed by critical theory of technology, assessments of technology extend beyond questions of whether a given technology is good or bad; and accordingly, the proposed solutions extend beyond how or whether a technology should be used. Critical assessments instead question the competing values of the larger social environment that are embedded in technological designs and consider how technologies might be designed differently to reflect a different or broader set of values. According to Feng & Feenberg (2008), technological design refers to the shape a particular technology is given "to adapt it to specific goals and environments" (p. 105). This process of "adapting" a technology to specific goals involves subjective decisions in the design process which deliver subjective outcomes. The resulting design favours certain interests while obstructing or undermining others. In a highly technical society, such as the one we inhabit, this politically biased process bears significant hegemonic effects (Feenberg, 2002, 2004a, 2004b, 2006).

In order to question the design and raise the possibility of alternative technical designs, two aspects of the design process must be understood. The first is that the process is subject to human decision making. Understanding this human influence opens the possibility of democratically influencing alternative design options (Longford, 2005;

Feenberg, 2002, 2004a, 2004b, 2006; Winner, 1986). For the purposes of this study, this democratic participation is not related to formal electoral processes that would determine design manifestations through secret ballot. Rather, here, democratic participation relates to collective citizen participation such as in the form of deliberation and debate, voicing resistance in public forums, active boycotting, mobilizing others and even forms of peaceful civil disobedience in order to establish a critical mass capable of swaying the shape of emerging designs so that they might reflect a different set of values.

The second aspect of design that must be understood is the value-laden nature of designs. The specific design shape and its functions are the result of a value-laden process aimed to meet a very specific goal in a very specific way. The values underlying the attainment of the goal are reflected in the design and deliver relative consequences that privilege certain interests over others (Feenberg, 2002, 2004a, 2004b, 2006, 2008). For example, efficient technologies that increase the speed with which trees might be harvested for lumber or other products will reflect a bias motivated by commercial values rather than concerns for the environment. Understanding technologies as embedded with values presents grounds for questioning the political biases embedded in technological designs; it involves questioning what values are embedded in a given device and whose or what interests are best served by the value-laden device (Feenberg, 2002). Critical theory of technology therefore urges us to examine the larger "taken-for-granted" cultural assumptions that are so ubiquitous that their influence on the decisions made in the design process goes virtually unnoticed (Feng & Feenberg, 2008; Winner, 1986). It is these larger cultural understandings and values that must be probed when deliberating and negotiating design alternatives. As noted, however, the challenge facing educators is pressure to incorporate technology into their programmes in spite of the dearth of resources that might help them evaluate technologies from a more critically informed perspective.

Prensky (2001), for example, provides a somewhat harsh account of how education is failing to meet the needs of a generation raised in technology laden environments. These "Digital Natives", he says, present a new challenge for educators of an earlier generation - a generation of "Digital Immigrants"- whose life experience has

been far less digitally oriented. He expresses little sympathy, however, for teachers of the Digital Immigrant generation and almost forcefully recommends the development and adoption of high tech educational methodologies that meet the Digital Natives on their own digital turf. From his account, teachers have little choice but to fulfil an obligation to keep up with the technological times.

Other authors express scepticism regarding the fervent integration of technology into education. Schools and universities are increasingly being run according to market principles with the aim of meeting an economically focussed agenda (Cuban, 2001; Hursh, 2008; Marshal & Gerstl-Pepin, 2005; Monahan, 2005; Morris; 2001). Such rationality cultivates an atmosphere of competitiveness that pervades the objectives and means of education. Schools and institutions compete amongst one another to attract students and families. They instil competitive tendencies within student populations through the promise of well paying jobs for those who work hard and exercise diligence. Efficiency is the overarching value informing productivity and budget allocation; and at the end of the day it is understood that technically literate students will be well prepared for the workforce and will fortify the economy in the larger global competition (Cuban, 2001; Hursh, 2008; Marshal & Gerstl-Pepin, 2005; Monahan, 2005; Morris; 2001).

Technological solutions are seen as key to this competitive edge. A seemingly impervious belief in the prestige of technology legitimizes huge financial investments in education technologies while other aspects of education experience cut backs. In addition, any course of action that diverts expenditures away from robust high tech infrastructures and technology related curricula raise suspicions regarding the overall quality of the school (Cuban, 2001). Thus, stakeholders ranging from parents, administrators, policy makers and curriculum writers, to technology consultants, manufacturers and distributors in the private sector, all work together to create a discourse that extols technological progress. This praise construes a learning environment well accoutred with technology as innovative, efficient, achievement oriented and capable of turning out desired results (Cuban, 2001; Marshal & Gerstl-Pepin, 2005).

These larger societal influences on policy and curriculum development present broad implications in practice. Cuban (2001) points out how teachers in general are not the driving force behind policy and curricular development. Yet, being on the front line of the educative process, it is they who are charged with incorporating the wildly varying and rapidly changing computer technologies into their education programs. In addition, there exists a disconnect between the thrust imposed by stakeholders for high tech education and the actual practicalities of implementation. This disconnect often manifests as poor training opportunities, equipment that does not reflect teachers' preferences or needs, inadequate technical support, and a situation that is generally reflected in the title of Cuban's book: a situation where technologies in schools are "Oversold and Under Used"(Cuban, 2001). The book highlights the ways in which the dominant discourse of the infallible progress of technology has undermined any debate regarding technological implementation in education. This reflection, however, is not about the absence of debate in relation to technological design, but rather is another example that raises questions regarding its use.

In his work on the need for value-based leadership in universities, Morris (2001) also raises concerns about the lack of "dialogue and debate on the advantages and disadvantages of information technology" (p. 285). He goes on to explain that "if anthropologists from another planet were to study faculties of education they would conclude that the blessings of information technology for education are universally accepted. They would not know that there is presently a vast body of critical literature" (Morris, 2001, p. 285). As such, he proposes a number of questions to instigate more enlightened policy decisions regarding technology which allude to a level of inquiry or debate that extends beyond whether technology is simply good or bad.

Further, what is interesting about his larger argument of addressing the "malaise" of the university is how it parallels philosopher of technology, Andrew Feenberg's proposal to challenge what he calls the "dominant technological rationality" (Feenberg, 2002, p. v). Like Morris (2001), Feenberg argues that the industrial values of modernity, such as preoccupation with productivity, profit and efficiency underlie and pervade our societal institutions and are so entrenched they have become invisible (Feenberg, 2002;

Feng & Feenberg 2008). Where Morris proposes that questioning these values through value-based leadership provides hope to inserting more humane practices and goals in university settings, Feenberg similarly argues that questioning such taken-for-granted assumptions are also necessary to understanding the design process of technology. Understanding technologies as socially influenced structures that reflect values from the larger cultural context, such as efficiency, commerce and control, allows us to imagine design possibilities that reflect a different set of values. This affords an opportunity to challenge existing power relations that are reinforced through technology through collective participation in the design selection process. Citizenship education that raises critical awareness of the politics of design and increases young people's capacities and inclination to democratically participate in the design process, could serve as a vital link to challenging power relations that are reinforced through technology.

## Significance of the Study and Audience

The commercial values that underlie the design of certain digital technologies are a good example of the political biases that might warrant the critical evaluation and democratic response of citizens. Such technologies have been designed to enable large amounts of personal information, such as those stored in the servers of social networking sites, to be manipulated with the greatest of ease and efficiency. Practices such as collecting, aggregating, and analysing vast amounts of data are commercially profitable (Barnes, 2006; Burbules, 1997; Lessig, 2006; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). These practices allow marketers to predict consumer behaviours and effectively target their advertising to a specific consumer profile (Burbules, 1997; Chung & Grimes, 2005; Lessig, 2006; Lyon, 2002; Starke-Meyerring & Gurak, 2007). In addition, data mining and brokerage has developed into a lucrative industry that also relies on rich stores of personal information that can be collected, stored, sorted, data-mined, analysed, bought and sold (Barnes, 2006; Burbules, 1997; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). Data brokers are multi-million dollar enterprises that sell the resultant packaged information to industries such as insurance companies, mortgage brokers, prospective employers, law enforcement agencies and government agencies. In this case, it is not a generic consumer profile that is

produced but a personal profile with information relating to a specific individual. The results allow discriminating decisions to be made based on a technologically aggregated profile that could serve to limit individuals' life opportunities in significant ways, such as limiting credit access, affecting employment and income potential and exposing them to specifically targeted products and advertising online (Fernback & Papacharissi, 2007; Lyon, 2002; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). Further, practices of monitoring and surveillance can have self-censoring and inhibiting effects on users in digital environments. Users who believe such practices to be taking place could refrain from activities such as whistle blowing, political activism and democratic deliberation for fear of possible negative repercussions (Goldman, 1999; Lessig, 2006; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007).

Thus, while it may be important that young people learn to use technologies to protect their privacy on line, privacy also has a larger social value that extends beyond personal safety and interests. In the absence of critical thought, the use of social networking sites in educational contexts implies an endorsement of such technologies. It suggests an acknowledgement of the conveniences and benefits that are afforded to users without stopping to question the commercial purposes that are also served, and the broader social implications of engagement with such sites. Therefore, educational practices need to equip students to look beyond their own self-protecting and self-fulfilling use of technologies. They need to raise student capacities to question the political nature of technologies and actively contribute to the shape of emerging designs in order to influence the outcomes that designs potentially impose on various actors, including society at large.

A critical analysis of the Facebook website allows me to illuminate the political nature of the site by drawing attention to how it serves the purposes of various actors. By revealing this inherent political aspect of the site, educators, curriculum developers and policy decision makers might ascertain the appropriate role of Facebook as an educational resource from a critically informed vantage point. The analysis of the site also provides a model of what a critically informed assessment of a common everyday technology might entail. My hope is that this study will provide enough theoretical

background and an adequate practical example to allow educators to apply such evaluations to other technologies and to empower their students to do the same.

## Purpose and Research Questions

My overall purpose with this project is to generate an understanding of what a critical analysis of Facebook might yield for citizenship education by critically examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. My hope is that this analysis might help teachers increase their students' capacities as digital citizens. Such capacities require not only a critical understanding of technological designs as political structures but also entails democratic participation in actions that might influence the values and interests reflected in emerging designs. Thus, I set out to critically analyse the Facebook site in order to answer:

> What insights might a critical analysis of Facebook's technological design yield for digital citizenship education in schools, specifically for questions around privacy and commerce?

This key research question is addressed by critically analysing the political nature of the site design in order to generate insight with respect to whose interests are privileged through the technology of the site, how it encourages a set of practices around the sharing of information, and whose interests are served by these information sharing behaviours. Thus, through the critical analysis I aim to answer two sub-questions: 1) How does the technological design of the site serve the interests of various actors such as users or operators? And 2) How does the site design encourage and normalize the sharing of personal information by it is users and for what or whose purpose? A third sub-question relates my analysis of the struggle between the collective value of privacy of a vast membership and the commercial interests of the site to the implications for citizenship education. It considers what educational practices might develop the capacities of students to critically question technologies and to democratically participate in activities that might influence the values and interests reflected in emerging designs. Thus I ask: What are the implications of the analysis results for digital citizenship education?

While these questions set out to critically examine the technological design of a common technology, it is worth emphasising that it is largely the competing values and interests reflected in the design that are being interrogated, which makes such an endeavour accessible to the average technology user. One need not be a Digital Native, a geek, or even particularly savvy to have a hand in this process. Having been born in the sixties I predate the first email, sent in 1971 (Rainie, xi), by three years. I grew up attending schools equipped with chalk boards and film strip projectors rather than SMART boards and PowerPoint presentations. I found books in the library by searching the card catalogue (literally a catalogue of cards), and when I got older, the assignments of my first undergraduate degree were typed with an electronic typewriter. I have a tendency to ignore many new and innovative technological manifestations, finding them frivolous, superfluous, or in many cases, simply unwanted. Although I do not attempt to speak for my contemporaries in general, I personally at times have identified with Prensky's Digital Immigrant. However, passive disengagement or unreflective avoidance of technologies does not do much to actively influence designs to be more reflective of our own interests or the collective interests of larger society. As such, with this project I hope to inspire even the most technologically-reluctant educators by demonstrating that participation in the shaping of future technologies does not require a particularly honed level of technical knowledge or skill, nor does it require a deep seated enthusiasm for every new innovation. Rather, it is by instilling a critical awareness of the political nature of technological designs coupled with cultivating a sense of commitment to the public good and developing practical skills of democratic participation that educators might empower their students to actively participate as digital citizens.

Facebook serves as a particularly suitable unit of analysis to demonstrate the political nature of technological designs and instil an appreciation for the possibilities to collectively influence technological designs. First, with a membership of 200 million (Facebook, 2009e) the site will be familiar to most teachers and students, and in many cases will have personal significance. Secondly, the site serves as a pertinent example of the flexibility of design and the potential impact of collective outrage and resistance.

In September 2006, Facebook implemented the "News Feeds" feature that aggregated and summarized all activities relating to users' friends' accounts so that it was immediately visible when users logged in. Although the information had always been available through friends' accounts, it had not been so accessible in such an efficient manner. As a result, a very vocal and indignant Facebook group of over 700,000 formed within the site to protest the infringement on their privacy and within a week Facebook responded by providing privacy settings that would allow individuals to escape this exposure (boyd, 2008). The Beacon feature implemented in November 2007 is another such example.

The Beacon reported information to users' friends regarding the users' activities on external websites that had partnership arrangements with Facebook. As a result, user activities such as the comments or ratings made on other sites, video rentals, purchases and travel arrangements were included in the information shared with the users' friends. Another user backlash ensued and Facebook apologised, and again, within weeks instituted settings changes to appease users and give them better opportunity to decide when their activities outside of Facebook would be shared with others.

The most recent revolt actually occurred during the analysis procedures of this study in early 2009 when Facebook posted a new Terms of Use. Users in vast numbers vocalized discontent with how they believed the changes would infringe on their rights to personal information. Facebook representatives, however, explained in press releases and on the Facebook site that the differences in the Terms were simply in the language used and had no bearing on changes in practice (Facebook http://blog.facebook.com/blog.php?blog_id=company&m=2&y=2009). The new Terms were intended to better inform users by clarifying what the previous Terms had already stated. Regardless, they did indeed withdraw the new Terms, reinstituted the old Terms, revised the new terms, and then allowed the membership to vote on which document was preferred. On May 1 2009, based on the results of 600 000 voting members, the new Terms, complete with the new title: Statement of Rights and Responsibilities, was implemented. Although this change is another example of how members can influence design, it does so in a very limited way. It must be noted that even the new Rights and

Responsibilities did not have any effect on how Facebook uses information; it simply changed how Facebook explained these practices. And the fact that such a backlash was initiated only after the original Terms were changed, raises interesting questions about how critically the Terms of Use and practices of the site had been evaluated by users, including in educational contexts, prior to the implementation of changes. This further underscores the value of this study in raising the awareness of the political and biased nature of Facebook.

However, given that we increasingly rely on, and are expected to engage with, digital technologies and technological systems to facilitate an increasingly wide range of our experiences and activities (Longford, 2005; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007), and given that a wide range of technologies are designed with functionalities that can store, manipulate, and distribute personal information with near instantaneous effect, the concerns raised and insight gained from this study extend beyond the Facebook site. Therefore, the focus on Facebook as a unit of analysis for this study is not intended to raise issue with Facebook specifically. Facebook simply serves as a concrete model that might instigate the questioning of digital technologies and technological systems more generally and might promote an appreciation for how our responses to these technologies can either passively comply with, or actively challenge power relations that are perpetuated through technological designs.

## Methodology

Given that my motivation lies in challenging existing power relations that are reinforced through technological designs, there is a political agenda underlying this study. As such, it is informed by advocacy epistemological knowledge claims (Cresswell, 2003) integrated with a critical theoretical position (Cresswell, 2003) focused on empowering individuals to participate collectively as citizens in order to challenge power relations reinforced by technologies and technological systems.

Informed by critical theory of technology, I conduct a single case study and employ a multi-method approach to data collection. I begin by analysing the Facebook Privacy Policy, Terms of Use and the Platform Applications Terms of use. In these

documents I examine the explanation of users' rights and responsibilities, as well as how the documents inform users of what personal information is collected through the technological design of the site, and the stated purpose of collection.

I then analyse various aspects of the technology based on my participation in the procedures of signing up and creating a Facebook account, creating and editing a profile and engaging with the privacy and application settings.

I critically consider how the design simultaneously serves the purposes of various actors such as the site operators and the membership, and examine the ways in which it encourages the surrender of personal data and for what or whose purposes. This critical analysis will not only allow me to illuminate the political nature of the site by revealing how it serves various purposes but more importantly, it will also allow me to interpret how certain interests are privileged.

Raising the profile and awareness of a critical approach to technology could serve as a resource for teachers who are considering using social networking sites in their education programs. It could also serve as a model for critically questioning and democratically responding to digital technologies in general. By equipping students with the critical awareness of the politics of design and by increasing their capacities and inclination to democratically participate in the design process, educators could empower a generation of digital citizens to challenge the hegemonic effects imposed through technology.

## Organization of the Study

This thesis is organized in five chapters. This first chapter presents and contextualizes the research problem and explains how my study presents a new perspective on addressing the problem. I explain my overall purpose, research questions, significance of the study and to whom this study could be beneficial. Finally I outline the methods I employed to respond to my research questions and meet my overall purpose.

In Chapter Two I present my assessment of existing scholarly work relevant to my study. I consider the themes that emerge with regard to the focus of existing studies

and their findings. I also assess a range of definitions of key concepts relevant to this study such as privacy and digital citizenship. This chapter also includes the development of my theoretical framework based on critical theory of technology, which informs my analysis of the Facebook website. By reviewing and examining the literature relating to technology, privacy and digital citizenship, I explain how the current literature informed the direction of my own study and how my work will contribute to the body of inquiry relating to these topics.

Chapter Three describes my methodological approach. It explains how, given my politically motivated purpose, my research is informed from an advocacy epistemological position and proceeds through a critical lens. It also outlines my single case study strategy of inquiry and multi-method approach to data collection. It provides a rationale as to why the selected design was the appropriate means to conducting this study and to meeting my overall purpose.

Chapter Four presents the analysis based on my interactions with the various aspects of the Facebook site. I present my interpretation of these units of analysis from a critical perspective and explain how they illuminate the political nature of the design of the Facebook site.

Chapter Five concludes this thesis by summarizing the findings and implications of my study and makes recommendations for practice as well as for further inquiry related to this research topic.

## Chapter Two – Review of the Literature

### Introduction

In the Boston Review, Cass Sunstein (2001) poses the question: Is the Internet really a blessing for democracy? While recognizing the ease with which people can access and share information, deliberate on political issues and participate in social causes, Sunstein is also quick to suggest that there exist potential dangers in the practices of personalizing and 'filtering' information. Selecting which information one wishes to see, and to not see, he argues, "walls individuals off" from the elements necessary for what he describes as a well-functioning system of free expression:

> First, people should be exposed to materials that they would not have chosen in advance. *Unanticipated encounters*, involving topics and points of view that people have not sought out and perhaps find irritating, are central to democracy and even to freedom itself. Second, many or most citizens should have a range of *common experiences.* Without shared experiences, a heterogeneous society will have a more difficult time addressing social problems and understanding one another. (Sunstein, 2001, ¶ 10)

Unanticipated encounters, Sunstein claims, contribute to the exposure of a range of ideas that, at the very least, raise awareness of fellow citizens and may actually temper convictions and reduce the likelihood of polarized views or extremism. In addition, experiences shared by many, despite their inherent differences, allow for at least some common memories, concerns, and goals. These elements combine to create a public sphere consistent with the aim of democratic ideals of free speech. A public sphere that Sunstein warns can be undermined by unlimited precision filtering of what one wishes and wishes not to see.

Sunstein's argument is convincing, and it is easy for anyone committed to democracy to appreciate his concerns regarding a well-functioning system of free expression within an expanding context of internet technologies. As a matter of fact, it is the connection between technology and citizenship that is also at the heart of my own study. As will be shown, however, my approach to addressing the connection between technology, democracy and the role of citizens differs significantly from popular perspectives such as Sunstein's.

Sunstein's use of phrases such as: "the most striking powers *provided by* [italics added] emerging technologies …" (Sunstein, 2001, ¶ 2) implies that what we can or cannot accomplish via the Internet is a result of what *technology* enables us to do. Such language and views reveal a common tendency in contemporary perspectives of technology, a perspective that views technological advancement as a predetermined process that is naturally inscribed within technology itself (Feenberg, 2002, 2006). By attributing the "powers" and their potential to pose "dangers" to that which is *provided by the technology* of the Internet, Sunstein (and others who hold similar deterministic views) tends to present a simplified perspective of technology as either good or bad; hence Sunstein's question: "Is the Internet really a blessing for democracy?".

According to critical perspectives of technology (Feenberg, 2002, 2004a, 2004b, 2006, 2008; Feng & Feenberg, 2008; Longford, 2005; Winner, 1986), however, such perspectives overlook the subjective and competing interests involved in the design of technologies. These social or human influences affect the design via the planning of functionalities that will serve certain purposes. The purposes that technological designs are intended to serve are biased according to the larger cultural assumptions and values that influence the decisions to design the technology a certain way. This renders the technological design a value-laden device that is biased to privilege some interests and purposes (and thus certain social groups) over others. In other words, from such a perspective it is not a matter of the technology per se providing the powers and dangers, or a matter of whether it is simply good for us or bad. Rather, the social influences behind the technological design render it the locus of a political struggle (Feenberg, 2002, 2004a, 2004b, 2006, 2008; Feng & Feenberg, 2008; Longford, 2005; Winner, 1986).

Failing to foreground the human or social influences eclipses consideration of larger cultural values and assumptions that represent the vying interests that influence the selection of certain design functionalities over other possibilities during the design planning stage. Overlooking the social influences results in technological designs being uncritically accepted as a given manifestation with which we are left to work, rather than evoking consideration of possible alternatives (Feenberg, 2002). Thus, perceptions of technologies can easily be reduced to questions of whether a specific technology is either

good or bad rather than acknowledging the political quality of the design and interrogating the interests it privileges. From uncritical perspectives, the democratic possibilities or, to use Sunstein's terms, the blessings and dangers are presented as consequences that are contingent according to the *use* to which citizens might apply the technology. As a matter of fact, he concludes with a seemingly categorical assertion that the "ultimate" solution will depend on "our practices". My intention here is not to undermine Sunstein's concern regarding responsible and informed use of technology, as I agree wholeheartedly with his sentiments including the importance of citizens being equipped to recognize and exercise responsible use of technologies. I propose, however, that such a position is not the only, let alone the ultimate, means to addressing matters relating to the connections between technology and citizenship. Eliciting critical theory of technology, I argue that technological designs themselves need to be problematized.

My overall purpose with this project is to generate an understanding of what a critical analysis of Facebook might yield for citizenship education by critically examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. This could assist teachers to advance digital citizenship education by increasing students' capacity to question the values that underlie technological designs and empower them to democratically participate in the design process of emerging technologies. By instilling student awareness of the political nature of technologies and developing capacities of democratic participation such as public deliberation and debate, expressing dissatisfaction with existing design consequences, and raising the awareness of others, young people would be in a better position to appreciate and exercise their potential to influence emerging designs. And while the focus of this project is on questioning and influencing technological design, it by no means aims to undermine the importance of responsible use of digital technologies or their possible beneficial application to these democratic processes relating to technological design. However, neither do I intend to imply a necessary reliance on such technologies in order for individual citizens to democratically participate in shaping emergent technological designs, as it is indeed possible for such democratic activities to contribute to this political process even when conducted outside the realm of digital spaces. Rather,

what I stress is the importance of citizenship education in raising critical awareness and developing young people's capacities to participate in the political design process.

The Facebook social networking site provides an excellent location for the analytical focus of such a politically oriented project. Declaring a membership of over 200 million (Facebook, 2009e) many of whom are high school and college students, the site is a digital technology that many students and teachers are already familiar with, if not personally engaged with. More importantly, however, its popularity reflected in such a vast membership emphasises the need for a critical understanding of technology in a highly digitized society. Therefore, in order to refine the focus of my study and underscore its pressing significance, I undertook a review of the status of the current body of literature relating to my purpose. With the aim of contributing to this body of literature, I set out to answer: What has been the main focus of research with respect to young people's use of social networking sites? How has the use of digital technologies and, more specifically social networking sites, been discussed in educational contexts? How have issues such as privacy and surveillance been examined in the literature, particularly with respect to digital environments? How has digital citizenship been defined in the literature? What theoretical notions of technology help conceptualize digital citizenship and what are the implications for digital citizenship education?

In the subsequent section I organize my evaluation of the literature into themes that allow me to explain how existing scholarship has contributed to the design of my own project, and how my work will contribute to this body of inquiry. Next, I examine various theoretical discussions surrounding technology in order to clarify the basic tenets of critical theory of technology and build a conceptual framework from which the Facebook social networking site will be analysed. This critical lens allows me to challenge current popular perceptions that view technologies as self-determining and/or as value-neutral by explaining how the technical design of the site acts as a locus of political struggle between competing values. In the case of the study at hand, such a lens allows for the examination of the struggle between commerce and privacy that takes place at the locus of the Facebook site. Finally, given that I aim to generate an understanding of what an analysis of the site might yield for citizenship education, I

develop a concept of citizenship that is relevant to a highly digital age and consider the educational practices that might develop such capacities in students.

## Literature on Social Networking Sites

In order to focus and delimit my own study it was necessary to assess the current state of inquiry relating to my purpose of understanding what a critical analysis of Facebook might yield for citizenship education by critically examining the political nature of the design particularly with respect to the competing values of commerce and privacy. My hope is that that such understanding might support teachers in promoting critical citizenship education by increasing students' capacities to submit technological designs to a more democratic process. Thus, I set out with an overarching research questions asking: What insights might a critical analysis of Facebook's technological design yield for digital citizenship education in schools, specifically for questions around privacy and commerce? My assessment of the literature relating to my purpose and to this key research question are organized below under the following headings: 1) Social Networking Sites and Youth, 2) Shifting Definitions of Privacy and the Practices of Surveillance 3) Contested Nature of Privacy Definitions, and 4) Solutions to Privacy Infringement.

### *Social Networking Sites and Youth*

Much of the scholarly literature on social networking sites considers the purpose they serve users. The most prominent use relates to how such sites provide users with a convenient and efficient means of serving a basic human need to connect with others. Several studies found that users engaged with Facebook (or other social networking sites) in order to make or maintain social connections (Barnes, 2006; Bumgarner, 2007, Coyle & Vaughn, 2008; Ellison, Steinfield & Lampe, 2007; Raacke & Raacke-Bond, 2008).

In a study of university undergraduates, Ellison, Steinfield & Lampe (2007) found that the use of Facebook was associated with social capital, or accessing socially based resources through their connection with others. Their findings emphasise that social connections and resources accessed through Facebook have potential to support

employment searches, establish internship placements and facilitate various other opportunities. They conclude that colleges might explore ways to harness such potential and that such use of technology might also be exploited by others such as neighbourhood communities, the work force of companies, and researchers.

Similarly, in their exploratory study of MySpace and Facebook, Raacke and Bonds-Raacke (2008) considered the reasons people used the sites, differences in gender and ethnicity of site users and what gratifications were addressed through site engagement. Their findings suggest that users are meeting socialising needs as well as sourcing information from their networks.

Bumgarner (2007) also surveyed a group of university students in order to determine "why they use Facebook and how it fulfils their needs" (¶ 1). Amongst a number of reasons including using the site as a contact directory, voyeurism, exhibitionism, and entertainment, the primary reasons are social. He concludes, however, that the social application is more about accessing gossip and information about friends than it is about establishing or maintaining connections.

In addition to the social aspects that are afforded through social networking, identity construction also profiled relatively highly in the literature (boyd, 2008; Hinduja and Patchin, 2008; Livingstone, 2008; Subrahmanyam & Greenfield, 2008; Tynes, 2007). Young people having opportunities to explore who they are and learning to negotiate their social surroundings are viewed as normal and necessary aspects of development. As a result, several of the studies not only advocate the use of social networking sites as an appropriate space for identity formation, they challenge the overemphasis on risks.

Tynes (2007), for example, states that skill development and identity formation could be stifled by overzealous restrictions of youths' online socializing. Although she does acknowledge parents' fears of online predators, she argues that the benefits afforded by the sites outweigh the risks. She concludes that "banning social networking sites is unnecessary and would close off adolescents' access to an important space in which to meet their developmental and educational needs" (p. 583).

Similarly, Hinduja and Patchin (2008) acknowledge the benefits of social connections and identity formation afforded by participating in the social networking site, MySpace. They also acknowledge the concerns raised in relation to careless or naïve habits of revealing too much personally identifiable information. Citing various press reports linking MySpace to risks that include cyberbullying, planned or executed bombings, suicide, and murder, the study indicates that by far the greatest concern is that of youth falling prey to sexual predators. The results of their study, however, indicate that most users take a conscientious approach to the information they post. Thus, in order to keep risks in check, the researchers conclude that concerned adults could assist youth to remain cognizant of the need for diligence in protecting their own information in their continued use of social networking sites.

There seems to be a tendency in these studies to query whether social networking sites are something that might be good for us or bad for us. It is such a question that is also at the core of the Sunstein article, which asks whether or not the internet is a blessing for democracy. In the case of the studies that consider engagement with social networking sites, there seems to be a focus on the benefits users gain from such engagement given the purposes served such as facilitating social connections and providing a forum for identity expression. The perception of these benefits is underscored by the underlying messages in several of the studies that appear to downplay the potential personal risks when weighed against the perceived benefits. The risks mentioned in the studies discussed thus far, largely focus on risks posed to an individual at the hands of another individual such as bullying, sexual exploitation, or “stranger danger” (Hinduja and Patchin, 2008; Livingstone, 2008; Tynes, 2007). Thus, the suggestion is that by ensuring informed and responsible use, users can reduce the risks to themselves and still access the benefits the sites have to offer. While the body of literature relating to youth engagement with social networking extends far beyond what has been reviewed here, my purpose has been to present the dominant trends and to highlight where the emphasis lies in the current state of inquiry with respect to youth and social networking sites.

These studies place an emphasis on the ways in which social networking sites serve the purposes of individual users. The convenient facilitation of social connections

and opportunities to express one's self are viewed as beneficial if used responsibly in ways that reduce potential risks posed by other users. This tendency to view technologies in simplified terms of being either good for us or bad overshadows their political nature and obscures the socially relative consequences of the varied purposes they are designed to attain. Although the sites do indeed provide convenience and benefits to users, there is little attention paid to the commercial purposes the sites serve for the site operators and the disparity of consequences this has for the operators and the users. Therefore, the aim of my study diverts from a focus on the individual benefits and risks or how individuals can manage these potential risks and protect themselves through sensible and informed use of the technology. Rather, this study is designed to interrogate the broader social values that underlie the political nature of the Facebook website by questioning how the site serves both the interests of the operators and the interests of users as a group. From a critical perspective, this focus on the competing values that underlie the technological design is highly relevant to matters of citizenship (Feenberg, 2002, 2004a, 2004b, 2006, 2008; Longford, 2005; Winner, 2005). It is by understanding the politically biased nature of the design of Facebook and other digital technologies that users are in a better position to collectively participate as citizens in the process of influencing the values reflected in emerging technologies and technological systems in order that these technologies might be more responsive to the interests of society at large.

### *Shifting Definitions of Privacy and the Practices of Surveillance*

Another theme that emerges from the literature highlights a different concern presented by engagement with digital environments such as social networking sites, and strikes a chord at the very heart of digital citizenship. This concern relates to the technological design functionalities that enable systemic practices of large-scale collection, storage and manipulation of personal information (Blanchette & Johnson, 2002; Burbules, 1997; Chung & Grimes, 2005; Fernback & Papacharissi, 2007; Lyon, 2002; Phillips, 2004; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). These institutionally based risks are not posed by recklessly revealing too much personal information to the wrong audience. Rather, the concern lies in what actually happens to the very flows of personal information exchanged when social connections and self

expression take place within digital environments. Drawing on the work of a number of theorists, Starke-Meyerring & Gurak (2007) explain:

> The internet allows for massive access to and instantaneous surveillance of any social interaction. More importantly, texts, often existing in databases of some sort, and any social interaction in digital spaces take on an entirely new function: they become personal data that can be put to uses previously unimaginable. (2007, p. 299)

The result of such surveillance enabling technological designs is the large-scale collection and storage of personal data which can take place completely without the knowledge of the individual and which can be aggregated, analysed, manipulated, and distributed with the greatest of ease (Lal Bhasin, 2006; Lessig, 2003, 2005, 2006; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). This information can be sorted into highly detailed personal profiles that can then be packaged and sold as a risk reduction strategy to such industries as insurance companies, financial lenders, and prospective employers. The result is discriminating decisions being made about individuals that could potentially alter their life opportunities in significant ways, such as limiting credit access and affecting income potential (Fernback & Papacharissi, 2007; Lyon, 2002; Phillips, 2004; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). Alternatively, the profiles can be used to enhance the effect of advertising through highly targeted marketing or to inform the development of products that appeal to very specific profile types of consumers (Chung & Grimes, 2005; Phillips, 2004). So lucrative is this business of collecting, manipulating, and selling personal data that it has evolved into a multibillion dollar industry (Starke-Meyerring & Gurak, 2007).

Such practices highlight an important and complex aspect of digital technological designs by demonstrating that they can, and do, simultaneously serve different or competing agendas. This exemplifies their political nature. In the case of social networking sites, the purposes that information sharing and exchanges serve for the users are so closely tied to the commercial purposes they serve for the site operators that serving the purposes of the former could be described as a necessary precondition to that of the latter. This interrelationship complicates the implications of online engagement and

calls for a reconsideration of what it means to protect personal information online. Perhaps even more importantly, it raises questions regarding why we should do so.

In cases of perceived individual level threats, not only are social networking sites seen as a mere medium that other users might apply to their own purposes, but also a common perception is that a sound solution lies in responsible behaviours exhibited by anyone who might be interested in ensuring one's own safety. In cases of systemic harvesting and commodification of information, on the other hand, the consequences are a result of the affordances designed directly into the digital spaces themselves. This complicates the issues of what constitutes protection and infringement of privacy and what the options to recourse might require. Although practices of large-scale data collection could still pose consequences at a personal or individual level, the practices are not individually targeted. Rather the collection is institutional and indiscriminate which shifts the focus of protection of information from a personal nature to protecting the collective public interest. It is for this reason that my study looks beyond the discussions of how members might responsibly *use* the Facebook site to protect their own personal interests. Rather, this study analyses the *design* of the Facebook site as a political structure and the implications this might pose for citizenship education particularly with respect to questions around the values of commerce and privacy.

### *Contested Nature of Privacy Definitions*

The technologies that have been designed to enable the collection and manipulation of personal data have "reshaped the privacy landscape" of the Internet (Starke-Meyerring & Gurak, 2007). This reshaping of the privacy landscape is the result of the political struggle that takes place at the site of technological designs, where values such as privacy intersect and compete with other values such as commerce, and where certain values are privileged and others are undermined. The designs and practices are subject to variation and are informed according to the definition of privacy that is adopted and advanced. The definition of privacy, however, is highly contested and sheds light on the value of privacy in the context of digital technologies and the Internet.

According to Anita Allen (2007) in the Encyclopedia of Privacy, "An exact definition of privacy remains elusive" (p. 393):

> Lawyers have said that the gist of privacy is the "right to be left alone." Philosophers have shown that privacy often means "inaccessibility to others' senses and surveillance devices." Privacy means "control over personal information" for policy makers designing data protection and electronic communications practices. (p. 393)

Janlori Goldman (1999) provides another multi-faceted definition stating that such definitions are "at times distinct and at times inextricable" (p. 101):

> The first component is the right to retreat from the world, from one's family, neighbours, community and government...We think of this privacy value as it was initially conceived by Justice Louis Brandeis over a century ago as 'the right to be let alone'.
>
> The second component of privacy is the right to control information about oneself, even after divulging it to others... To maintain privacy in modern times, as Professor Alan Westin defined it, individuals need to 'determine for themselves when, how and to what extent information about them is communicated to others'. (p. 101)

While the EU Data Protection Directive defines privacy as a fundamental human right (Directive 95/46/EC, 1995), it stipulates that the transfer of personal data is prohibited to countries "which do not ensure an adequate level of protection" (Directive 95/46/EC, 1995, p. 36, ¶ 57). This suggests that not all countries outside the European community will protect the privacy of citizens as a fundamental human right.

The differing perspectives of what constitutes privacy reveal the contested nature of privacy. Raab (1999) points out, "Privacy protection in law and practice involves a balance between competing values in order to achieve a result that safeguards individual privacy while also accommodating other important social, political, or economic ends" (Raab, 1999, p. 68). The meaning of privacy, therefore, is contextual and is subject to the discourses that aim to sway the balance in the favour of the value that privacy might be competing with, such as national security, commerce, or efficient and personalized service (Raab, 1999).

With respect to the study at hand, the recognition of the contextual nature of privacy definitions, which in turn informs practice relating to the management of information, will shed light on how privacy is conceptualised with respect to Facebook's practices. A view of privacy in online spaces that suggests that privacy is a concept relevant on an individual or personal level implies that it is to be protected from strangers, identity thieves or paedophiles. Such a definition of privacy will call for different protective measures than a view of privacy as a collective good that is at risk of being infringed upon through technological designs. It is worth considering, therefore, why privacy as a social good is a value worth protecting.

Goldman (1999) states that people must be able to preserve their privacy in order to preserve other values. Practices such as the collection, manipulation and sharing of personal information have the potential to undermine values such as autonomy, for example. When one is aware of the possibility of being surveilled, one's actions may be curtailed or altered according to perceived expectations and the need to present a certain image of the self. This external influence interferes with the self-determining nature of personal decision making (Goldman, 1999; Starke-Meyerring & Gurak, 2007). An environment in which privacy is not ensured or respected could result in acts of resistances such as free speech, whistle blowing, dissent and political activism being undermined or stymied for fear of reprisals (Goldman, 1999; Lessig, 2006; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007).

Thus, the message that privacy in online spaces is more than a personal issue is underscored. While informed and responsible use of digital technologies will always be a valuable strategy for self protection, valuing privacy as a social good warrants an understanding of technological designs as political structures that host the struggle between competing values and interests. Therefore, this study undertakes a critical analysis of the Facebook site in order critically examine the ways the site is designed to encourage the sharing of personal information, and for what or whose purposes. Assessing how the site defines privacy and examining how this informs and biases the design of the site to meet varied purposes are key to such analysis. Further, understanding the political biases will shed insight on the larger societal values that are driving the

decisions to design the site to function in ways that serve or privilege certain purposes. It is my hope that the understanding generated from this examination will support educators to expand their students' tendencies to appreciate the worth in looking beyond their own purposes and benefits gained from engagement with social networking sites and learn to appreciate the value of preserving privacy for the common good. Young people need to become empowered to critically question the politics of technological designs and develop the skills to democratically participate in activities that could influence what values might be embedded in emerging technologies. Reconsideration of what constitutes privacy and why we might preserve it is highly relevant to this matter.

### *Solutions to Privacy Infringement*

The varied and complex solutions to preserving privacy are the focus of a significant body of scholarly literature (Barnes, 2006; Blanchette & Johnson, 2002; Chung & Grimes, 2005; Lal Bhasin, 2006; Lyon, 2002; Phillips, 2004; Starke-Meyerring & Gurak, 2007). For the most part, these solutions include technical solutions, policy and legislation, and social solutions. This section will consider how researchers have discussed these solutions and will underscore why critically informed approaches to technology are warranted.

#### *Technical solutions.*

In regards to technical solutions, Starke-Meyerring and Gurak (2007) state that "just as a whole industry has developed to monitor and track people and to collect their personal information, another industry has developed to provide solutions to privacy invasion" (p. 309). These technologies, referred to as privacy enhancing technologies (PETs), can work in a variety ways making it more difficult or impossible for personal information to be accessed. Encryption software, for example, encodes data being sent over the internet so that it is only readable by a recipient with the key to the code. By doing so it protects messages from "eavesdropping" through interception and thus it is also useful in protecting data such as credit numbers in online business transactions (Blanchette & Johnson, 2002; Lal Bhasin, 2006; Phillips, 2004; Starke-Meyerring & Gurak, 2007). Pretty Good Privacy (PGP) and Secure Multipurpose Internet Mail

Extensions (S/MIME) are widely available examples of such commercial systems (Lal Bhasin, 2006; Phillips, 2004; Starke-Meyerring & Gurak, 2007). Also available are anonymizing options that will "sever the link between an online user's interactions and the user herself" (Phillips, 2004, p. 696) making it difficult to track the electronic "footprints" of users and shielding users' identities from the sites they visit. Cookie managers are another example. Cookies are a standard tool used by websites to identify users. The website leaves an identifying marker, a cookie, on a user's computer so that the website can recognize when users return to the site using that machine and can record the visitation history and browsing habits at the site (Phillips, 2004; see also Starke-Meyerring & Gurak, 2007). Cookie managers can undermine this process such as by blocking cookies, or allowing them for a single browsing session only. There is also the Platform for Privacy Preferences (P3P) protocol which is a set of standards that websites agree to whereby they disclose their intentions of accessing data in a format a user's computer can read. Thus, it increases the transparency of the "when" and "why" of information collection which allows users to decide whether to opt out or counter the activity (Lal Bhasin, 2006; Starke-Meyerring & Gurak, 2007; see also: Phillips, 2004).

This is far from an exhaustive list of the technological solutions that can counter the electronic harvesting of personal data. While at least partially effective in protecting users' privacy, the complexity of these options often exceeds the technical capabilities of the typical user. Therefore, although PETs contribute to a solution, they do not in and of themselves, serve as a complete or adequate solution to the issue of privacy protection (Fernback & Papacharissi, 2007; Phillips, 2004). This calls for a multifaceted strategy to counter the effects of privacy infringement in digital environments.

***Policy and legislation as solutions.***

Legislation with respect to the protection of privacy varies from country to country. Bennett and Grant (1999) explain that the increase in global communication networks have resulted in the development of internationally recognized Fair Information Practices (FIPs). The FIPs serve to discourage the misuse of personal data by acting as guidelines and by informing regulations and legislation.

Bennett and Grant (1999) explain that according to FIPs, an organization:

- Must be *accountable* for all personal information in its possession
- Should *identify the purposes* for which the information is processed at or before the time of collection
- Should only collect personal information with the *knowledge and consent* of the individual (except under specified circumstances)
- Should *limit the collection* of personal information to that which is necessary for pursuing the identified purposes
- Should not use or disclose personal information for purposes other than those identified, except with consent of the individual
- Should *retain* information only as long as necessary
- Should ensure that personal information is kept *accurate, complete and up to date*
- Should protect personal information with appropriate *security* safeguards
- Should be *open* about its policies and practices and maintain no secret information system
- Should allow the data subjects *access* to their personal information, with an ability to amend if necessary (Bennett & Grant, 1999 p. 6)

Although internationally recognized, the adoption, implementation, and statements of FIPs differ between countries, organizations and political bodies (Bennett & Grant, 1999; Gellman, 1999; Starke-Meyerring, Burk, & Gurak, 2004). So too do the more specific legislation and policies that regulate the protection of privacy. Across the spectrum, the United States lags behind other industrialized nations with respect to imposing legislation relating to privacy concerns (Fernback & Papacharissi, 2007; Gellman, 1999; Lal Bhasin, 2006).

Although the US has imposed legislation to protect children online, it has largely deployed a digital environment of voluntary compliance or self-regulation (Fernback & Papacharissi, 2007; Gellman, 1999; Lal Bhasin, 2006; Starke-Meyerring, Burk, & Gurak, 2004). As Lal Bhasin (2006) states regarding the US approach, “In practice, a consumer’s privacy is protected primarily by the goodwill of businesses” (p. 147). For example, in 2000, the US Federal Trade (FTC) identified five FIPs which became an accepted guideline to ensure the fair use of personal information in the US. These include: Notice (informing of when personal information is being collected), Choice (collecting and using only with consent of the person whose information is collected), Access (allowing , individuals access to the information that is collected about them), Integrity and Security

(protecting the information that is collected from being misused), and Enforcement (recourse to action when someone feels their information may have been misused)[1]. Businesses, however, are not required by law to follow the principles and a study by the FTC in 2000, indicated that only 20 percent of randomly selected websites were following the principles (Fernback & Papacharissi, 2007; Lal Bhasin, 2006; LaRose & Rifon, 2006).

Further, the US worked with the European Commission to develop a framework of voluntary practices that would allow for business opportunities between the United States and European Union citizens. The resulting Safe Harbor Privacy Principles were developed to bridge the gap between the self-regulatory environment of the US and the stringent EU Data Protection Directive which disallows the transfer or processing of European citizens' personal information from being transferred to or processed in countries that did not have sufficient protective measures in place. The Framework, however, has been criticised by advocacy organizations for not going "far enough to protect the privacy of European citizens and that the principles, by design, fail to offer any privacy protection to U.S. citizens (Starke-Meyerring, 2007a).

These variations in legislation and regulation can be related back to the earlier discussion by Raab (1999). As was noted, protecting privacy is a matter of striking a balance between privacy and other competing values such as national security, commerce, public health and safety, and law enforcement. This balance is subject to the discourses that surround the political debates that aim to promote certain interests. Thus, the lax approach to statutory implementation of privacy regulation and legislation in the US is indicative of the success of business discourse to advance the competing interests of data users such as those charged with national security and those with economic interests (Raab, 1999).

In so called "self-regulating" environments it is reasonable to consider the efforts online businesses and organizations make to ensure some level of standard is taking place

[1] Fernback & Papacharissi's (2007) reference to the FIPs identified by the FTC in 2000 includes only four FIPs, excluding the practice of 'enforcement' that was noted by Lal Bhasin (2006). However, given the voluntary nature of compliance with the FIPs, the inclusion of allowing individuals "recourse to action" if other core identified practices are violated only serves to emphasise the mollifying nature of identifying and suggesting a set of practices in the first place.

to protect privacy. Some online businesses opt for trust seal approval. Trust seals such as BBBOnline and Truste are independent not-for-profit organizations which set standards for practices, provide oversight of practices and offer complaint resolution services (Lal Bhasin 2006; LaRose & Rifon, 2006; Starke-Meyerring, 2007a; Starke-Meyerring, Burk & Gurak, 2004). Posting the logo of the organization indicates that the business voluntarily complies with standards of the organization and is meant as an assurance to website visitors. The organizations, however, are industry sponsored and at times have been criticised for the conflict of interest this could pose (Starke-Meyerring, Burke & Gurak, 2004, See also Lal Bhasin, 2006; LaRose & Rifon, 2006). Some feel that they are little more than "marketing ploys to lull consumers into a false sense of security" (Lal Bhasin, 2006, p. 145).

Several studies discuss businesses' use of privacy policies and statements (Chung & Grimes, 2005; Fernback & Papacharissi, 2007, Lal Bhasin, 2006; Markel, 2005). Markel (2005) points out that privacy policies are strategically written in attempts satisfy competing objectives. They aim to inform website visitors that information collected is presumably not infringing on their rights, and simultaneously aim to satisfy regulatory authorities that the practices of the company protect personal information, and also aim to allow the company to generate revenue through the management of the information they collect. The result is statements that are written in language that obscures the actual practices, not only making it unclear what happens to personal information, but essentially stretching the truth (Markel, 2005). Fernback and Papacharissi (2007) underscore these practices stating that "what is ostensibly a concern for consumer safety is shrouded in rhetoric that protects the [sites] themselves" (p. 730).

While Markel (2005) and Chung and Grimes (2005) argue that the statements are intentionally unclear, both studies explicitly suggest that more stringent ethical practices on the part of site operators would serve the interests of site visitors. Caution must be exercised, however, in order to avoid over emphasizing the onus of site operators (or companies) to ensure the protection and fair use of information. It is after all, the active intent and economic interests of these entities that result in the data manipulating technologies in the first place. As Fernback and Papacharissi (2007) state:

> Privacy statements generally serve two major purposes: to mollify consumers wary of conducting transactions online for fear of privacy violations; and to convince regulators that further legislative initiatives to guarantee consumer privacy are unnecessary, since the industry self-policing efforts sufficiently protect citizen rights. (p. 719)

Thus, relying on businesses themselves to self-regulate presents somewhat of a conflict of interest and, like PETs, might contribute to privacy protection, but they do not serve as a practical sole means in this process. While not completely without value, the simple fact that such solutions are deemed necessary to protect privacy is evidence that technologies privilege some interests over others. By raising the critical competencies of students, however, individuals might be more inclined to question the technologies that they interact with on a daily basis in order to ascertain whose or what interests are being privileged. Raising such critical capacities might transcend solutions such as reliance on the 'goodwill' of those whose interests are privileged in technological designs. Thus, by critically analysing various aspects of a very familiar technology, the Facebook site, I intend to demonstrate ways in which the design of the site serves the interests of both site users and site operators but with potentially disparate consequences.

***Social considerations as a solution to privacy protection.***

Raising critical awareness of students is directly related to the social considerations as a means to protecting personal data and privacy online. Barnes (2006) states that awareness and education are vital to promoting responsible use of the internet in order to protect individual privacy. Without undermining the importance of safe practices of online engagement, it is worth noting that her focus is on the capacity of individuals to protect their own interests through responsible use. It has a worthy but limited focus on individual self-interest. Systemic issues arise, however, as a result of technologies that collect and manipulate vast amounts of personal information. Although they can present consequences for the individual such as by affecting employment opportunities, credit access, or presenting price discrimination, they are not targeted at individuals but instead indiscriminately target users of certain digital technologies in general. The effect of these digital surveillance and tracking affordances can also undermine collaborative participation, free speech and autonomy are hardly conducive to

a healthy democracy (Goldman, 1999; Lessig, 2006; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). Thus, protection of privacy moves from a personal interest into the collective realm and warrants a democratic response to preserve its common good.

These measures, however, to preserve privacy as a social good will not be addressed through safe and responsible use of technology that protects individuals from stalkers or bullies. Because the technology has actually been designed to enable the practices the focus of recourse must shift from *use* to *design.* Promoting an understanding that technological designs have been socially influenced to privilege certain interests raises grounds for questioning which values and interests a particular technologic has been designed to privilege (Feenberg, 2002, 2004a, 2004b, 2006, 2008; Feng & Feenberg, 2008). However, it also gives rise to the notion that users could assume a role that asserts some influence on alternative design possibilities in order that the designs may reflect different, or a broader range of values. Such critical understandings of technology could place emerging technological designs in the realm of citizenship and democratic participation (Barney, 2006; Benkler, 2006; Feenberg, 2002, 2004a, 2004b, 2006, 2008; Feng & Feenberg, 2008; Lessig, 2006; Longford, 2005; Winner, 2005). Through such democratic participation, citizens could actually counter the technological designs and systems that are undermining not only privacy as a social good, but democracy itself.

A healthy democracy, however, is not something that is self-perpetuating . It is "predicated on citizens' informed engagement in civic and political life" (Westheimer & Kahne, 2003, p.9). Thus, it calls for educational practices that will prepare students to participate in responsibly shaping the world they will live in (Gutmann, 1990; Westheimer & Kahne, 2003, 2004). In the case of the ubiquitous presence of digital technologies and technological systems that are designed with the surveillance and privacy infringing functionalities that have the potential to undermine democracy, the critical capacities and the inclination of individuals to question the interests reflected technological designs should not be left out of the agenda. It is with this aim that I undertake this study in order to generate understanding of the competing values of

privacy and commerce that take place at the site of Facebook and to contribute a new perspective in the ongoing scholarly discussions surrounding issues of technology, privacy and, digital citizenship education.

The following section will develop a framework that will illustrate how common perspectives of technology limit our understanding of its consequences to matters of use and how a more critically informed perspective raises the possibilities of rendering technologies a matter of citizenship and collectiveparticipation.

## Theoretical Framework

As indicated at the outset, my overall purpose is to understand what a critical analysis of Facebook might yield for citizenship education by critically examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. Generating such insight might support teachers to increase the capacities of students to question the values underlying the technologies with which they engage and democratically participate as digital citizens in efforts to influence the values that might be reflected in emerging technologies. In order to serve this purpose it is important to first have a critical understanding of the political nature of technological designs. This section will draw upon the discussions of several theorists in order to illuminate the contrasting and converging elements of different perspectives and understandings of technology. This will throw into relief the distinguishing characteristic viewpoints of critical theory of technology and three additional perspectives of technology, namely: determinism, substantivism, and instrumentalism (Benkler, 2006; Feenberg, 2002, 2004a, 2004b, 2006, 2008; Feng & Feenberg, 2008; Lessig, 2003, 2006; Longford, 2005; Winner, 1986, 2005). This overview will illuminate that while other perspectives tend to obfuscate the political nature of technological designs and the possibilities of negotiating alternative future designs, critical theory of technology emphasizes these points. It is such critical awareness that is key to my purpose of increasing citizens' capacities to participate in the democratic reform of technologies.

### *Overview of Perspectives*

Philosopher of technology, Andrew Feenberg has contributed significantly to understandings of technology from a critical perspective. His discussions of critical theory of technology are often presented against a broader examination of other theories of technology (Feenberg, 2002, 2004a, 2004b, 2006). This, he explains, allows for clarification of the intersecting characteristics of the established theoretical positions demonstrating how critical theory of technology overlaps with, and retains the best of, the alternative positions. At the same time, the larger context created by examining the additional perspectives allows for the illumination of salient differences between critical theory of technology and others. These differences, Feenberg argues, offer an opportunity to challenge societal power structures that are reinforced by an antidemocratic system of technological development (Feenberg, 2002). This examination of Feenberg's analysis and classification of various theoretical perspectives will allow me to explain why a critical understanding of technology is indispensible to my project; it is by increasing young people's capacities to understand the political nature of technological designs that they will be empowered to evaluate what interests are at work in technological designs and be better positioned to participate in democratic activities that might contribute to the shape of future designs.

The characteristic points of view of the various theoretical perspectives, as presented by Feenberg, are based on two intersecting dimensions. It is important, however, to understand the position of each perspective in the table as representing a somewhat fluid or shifting position along a continuum rather than as representing a categorical distinction. In practice, the positions are one of degree and may oscillate in intensity according to individual perspective and context, which could at times muddy the theoretical distinctions (Feenberg, 2002).

| **Technology is:** | **Autonomous** | **Humanly Controlled** |
|---|---|---|
| **Neutral**<br><br>**(complete separation of means and ends)** | Determinism | Instrumentalism |
| **Value-laden**<br><br>**(means form a way of life that includes ends)** | Substantivism | Critical Theory of Technology |

*Table 2.1.* The Varieties of Theory . Note. From *Questioning Technology* (p. 9), by A. Feenberg, 1999, New York: Routledge. Copyright 1999 by Andrew Feenberg. Adapted with permission.

As seen in Table 2.1, the first dimension represented by the top horizontal row relates to whether or not technology is viewed as 'autonomous' or whether it is 'humanly controlled'. Technology as autonomous refers to the belief that technology progresses in a naturally self-directed manner that is independent of human or social influence. Thus, the progression of technology requires that humans must adapt to the conditions it creates. The alternative view of technology as humanly controlled considers technology to be shaped by human influences. From this perspective, technological design reflects a socially and subjectively desired purpose rather than necessitating human adaptation to its progress (Feenberg, 2002, 2006). As will be shown, this understanding of the social influence on technology is crucial to evoking the possibility of democratic participation in the shaping of emergent technological designs.

The other dimension, represented by the first vertical column, distinguishes theories of technology according to whether technology is viewed as value-neutral or whether it is believed to be value-laden. Perspectives that view technology as value-neutral see technology as simply providing the convenience of efficiency. Efficiency is viewed as easing the attainment of some end or objective and a given technological device is viewed as simply the vehicle which facilitates the efficiency. These devices,

which automate or significantly remove the effort required to attain the ends, serve to obscure the relationship between the means and the ends. This process of separation underlies the understanding of technologies as value-neutral tools and occurs as a result of intuitively perceiving technologies as a mere combination of physical elements bearing no conscious intent or bias to serving a specific purpose or to privileging certain interests (Blacker, 1993; Feng & Feenberg, 2008). Any disparities in the social or environmental consequences as a result of attaining the ends are seen as a result of the interests and values that motivate how the technology is used rather than being inherent in the technological design (Feenberg, 2002, 2006). I must stress that the point I strive to make throughout this study is not that the values that motivate the *use* to which a technology is deployed are irrelevant or unimportant. Rather, my point is that viewing the technological designs as unbiased and acknowledging values *only* with respect to how the technology is *used* serves to obliterate the values reflected in the technological *design* and obliterates any need for citizens to collectively participate in the shaping of future designs.

In contrast to the views of technology as value-neutral, perspectives that understand technological designs as value-laden view it as reflecting, and responsive to, values beyond mere efficiency (Feenberg, 2002, 2006). Such a perspective promotes an understanding of technological designs as politically charged structures. From such perspectives, ends are not seen as separable from the means. As Blacker (1993) explains based on his examination of Dewey's discussions relating to technology and non-neutrality: "Tools are not value-laden in the simple sense that values inhere in them … but rather in the more subtle sense that they provide the framework within which *any* valuing procedure occurs" (Blacker, 1993, p. 190). The "valuing procedure" refers to the critical reflection one undertakes in determining whether an end is worthwhile, or *valued.* This requires consideration of the larger context which necessarily includes the means, or in other words, the technology designed to attain that end. The technology as a means to an end worth attaining must be viewed as reflecting the values motivating the attainment of the end, hence the technology itself being viewed as value-laden (Blacker, 1993).

Thus, as shown in Table 2.1, promoting critical citizenship in our high-tech society requires an understanding of technology as humanly controlled and as value-

laden. First, understanding technological designs as value-laden evokes the interrogation of what or whose values are reflected in the design. Second, understanding technological designs as humanly controlled opens up the possibility of democratically participating in the political struggle that takes place within the locus of technologies in order to influence what values might be reflected in future technological designs (Feenberg, 2002). It is for these reasons that critical theory of technology is the framework from which I analyse the design of the Facebook website. Critically analysing the Facebook site will generate understanding with respect to the competing values of privacy and commerce. Understanding the political influences underlying the relationship between these competing values as they intersect at the locus of the Facebook site might assist teachers to appreciate what a critical evaluation of a common technology entails. Further, it could inform educational practices that could foster digital citizenship capacities of their students. This would involve increasing students' awareness of the political nature of technologies and equipping them with the practical skills to democratically participate in influencing the values reflected in new and emerging technologies.

### *Description of Perspectives*

While Table 2.1 provides a simplified visual that helps to clarify where the perspectives converge and diverge, a brief explanation with examples will assist in elucidating the basic tenets of each. It will also reinforce the rationale for eliciting a critical perspective in addressing the purposes of this study.

#### *Instrumentalism.*

Instrumentalist perspectives generally subscribe to the belief that technological designs are shaped by active human contributions; in other words, they are humanly controlled. Instrumentalists also believe that technological designs are value-neutral or driven by the mere value of efficiency. The notion of efficiency as it is used here, and its connection with neutrality, warrants some explication. According to Dewey (as explained by Blacker, 1993), human beings exist in a world that offers little in terms of addressing human needs without some effort exerted on behalf of the needy. Technology reduces the effort or the threat of presenting hazards between what we need or desire and attaining

that objective. In a highly technological environment such as the one we currently inhabit, this reduction of effort and threat has an abstracting effect on how the means are perceived which serves to create a rift between means and ends. Thus, the new and improved, or *efficient* means afforded by the technology becomes viewed as completely separate from the ends. The technological means, therefore, are understood as mere physical constituents. From such a perspective it seems commonsensical that inanimate technological devices lack the consciousness to hold any values, intentions or preferences in and of themselves. This gives rise to the understanding that technology is value-neutral aside from the value efficiency. Therefore, the consequences of technology are understood as being a result of the subjective intent or purpose to which it is applied, or, in other words, its use (Feenberg, 2002, 2006; Winner, 1986).

The use of technology is seen as a way to remove the effort or hazard in attaining some end. As such, by making the attainment of some need or desire easier or safer, the mass of inanimate material is understood to serve an equal effect of efficiency for all individuals or groups. With the development of technology by humans being perceived as undertaken with efficiency in mind, the resulting combination of basic components that holds no inherent preferences or intent is viewed as unbiased, or *neutral*, in its service to humanity (Feenberg, 2002, 2004a, 2006; Winner, 1986). With such a view of technological design, however, there is no reason to interrogate the design as designs are not seen as political and not implicated in privileging certain interests or groups over others. Participation in the negotiation of emerging designs are therefore precluded and issues of citizenship in relation to technology, from such instrumental perspectives, instead concentrate on promoting responsible use of the unbiased tool.

Advanced by certain social actions such as advertising and reflected in the public discourse, instrumentalism is the typical, unreflective position held by many today (Feenberg, 2002, 2004a, 2006; Monahan, 2005; Winner, 1986). The disassociation of means and ends, however, is problematic for some theorists who argue that means do not have any significant relevance on their own. Thus, any consequences that result from technological application need to be understood in a larger context of varying motivations and that what serves as efficiency for some, does not necessarily produce positive or

desirable results for others (Feenberg 2002, 2004a; Blacker, 1993; Winner, 1986). This relativity of consequences sheds insight into the politics embedded in designs which evokes questions relating to whose or what interests are being served. It is this interrogation of the political nature of designs that is vital to appreciating the negotiation of design options as a concern of citizenship from a critical perspective. Winner (1986) provides an example of how in the 1940's 'efficient' tomato harvesting technology served to reduce the time and human power required to harvest tomatoes. However, the quality of tomatoes was affected, thousands of jobs were lost, and the number of tomato producers shrank substantially while the amount of tomatoes increased but was concentrated in the output of fewer tomato producers. At first glance, it may seem rational to accept technology as value-neutral, bar the 'universal' convenience of efficiency. In this example, however, such a view obscures the underlying commercial interests that influenced the design of such a harvester. By overshadowing these interests that drove the particular design functionalities, the design is not implicated in the resulting disparate social impacts and thus the value of democratic negotiation of alternative design is not contemplated. In contrast, from the perspective of critical theory of technology, the interests that influence the development of technologies are not overshadowed; rather the political nature of technological designs is highlighted. It is such insight that is crucial to increasing the capacity of students to critically assess for whom or for what interests a particular technological design may function. Such an understanding of technological designs extends opportunities for recourse from mere adaptations of use to the deliberation of alternative designs.

***Determinism.***

Similar to the instrumentalist perspective, determinists view technology as value-neutral in that it only embodies the mere value of efficiency. As stated earlier, a technologically more efficient means of attaining a specific purpose serves to separate the means from the ends. Relying on an intuitive view that mere physical devices hold no conscious intent, the technological means are deemed *value-neutral tools*, and are understood to be unbiased. Therefore, it is the ends to which the tool is applied that are seen as responsible for the disparity in consequences for various actors. Thus, from the

determinist perspectives and instrumentalist perspectives alike, technological designs are not viewed as favouring any particular interests over others but rather, are seen to serve all of humanity in general (Benkler, 2006; Feenberg, 2002, 2004b, 2006; Winner, 1986, 2005). As indicated earlier, uncritical understandings of technology that view technological designs as value-neutral and serving all equally - without bias - attribute any potential or actualized negative consequences to the manner in which the technology is used; the use is also deemed the means to countering such consequences. Such value-neutral understandings of technological designs obfuscate the political nature of technologies and the need to question which values are represented or privileged by a technological design. This precludes any need to democratically participate in the shaping of future designs (Feenberg, 2002).

While the determinist perspective overlaps with instrumentalism in the value-neutral understanding of technology, it differs from instrumentalism in that determinists do not view technology as humanly controlled; instead technology is viewed as autonomous and is seen to progress along a naturally predetermined course. Therefore, the only influence humans have on the process is the rate at which technology develops rather than the direction or shape it assumes (Feenberg, 2002). Winner (1986) - himself not a determinist but rather a philosopher of the politics of technology - explains the deterministic perspective as "the idea that technology develops as the sole result of an internal dynamic and then, unmediated by any other influence, molds society to fit its patterns" (p. 21). This view of technology does not acknowledge the social influence in the historical or future manifestations of technology and thus any human responsibility for consequences of technological implementation focuses on how it is used rather than the way it was designed. Such a perspective also defies contestation of technological designs but for different reasons than that of the understanding of technology as value-neutral. From the perspective of seeing no human or social influence, there seems little point in questioning the form that it takes if there is little that can be done to challenge its predestined, self-directed form and apparently no social influence to hold accountable for the form it assumes (Feenberg, 2002; Winner, 1986).

With technological designs being perceived as both value-neutral, and thus a convenient reduction in effort for all of humanity, while at the same time being self-determining with social influences being limited to the pace rather than the shape of technologies, then any need to critically question and reform technological designs is undermined. The absence of reflection is typified in what Winner (2005) describes as a "long standing euphoria" regarding the promise of technological development, such as the belief that digital technologies and telecommunications hold the key to increasing prosperity, improving equality and enhancing democracy. Winner's (2005) following statement underscores this position:

> From the founding of the republic to the present day the rhetoric of American politicians, businessmen, educators and journalists has always praised the coming of new tools and systems, predicting that they would contribute not only to substantial benefits in power, efficiency and profit, but also revitalize democratic society. (p. 124)

Language such as, "the coming of new tools", is indicative of a position that views technology as progressing independently of human or social influence – as if the technology spontaneously arrives for human consumption rather than being designed to meet relative social objectives. Further, the enthusiastic tone implies that the *use* of "new tools" will ease the effort required to attain various desirable ends for society, such as profits and the revitalization of democracy. Thus, the evaluation of such tools is simplified as something that is good for all. With the view of universal benefits provided by a neutral technology *and* an understanding that humans bear no significant influence, a determinist perspective would be ill suited to serving my purpose. I aim to generate an understanding of what a critical analysis of Facebook might yield for citizenship education by critically examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. Viewing technologies as neutral tools obscures any reason to question the values within Facebook. Further, understanding technologies as progressing along a self-determined path undermines any reason to develop citizens' skills of democratic participation in attempts to assert their interests in the design process.

***Substantivism.***

Substantivists share a common view with determinists in that technology is self-determining. Humans are not seen as having any consequential effect on the direction or design of technology but rather can only influence the pace at which it develops or set moral or political boundaries on its usage (Feenberg, 2002). The two perspectives diverge, however, with respect to whether it is viewed as value-neutral or value-laden. Where determinists, like instrumentalists, view technology as value-neutral, or reflecting the single value of efficiency, and thus tend to present an enthusiastic endorsement of what technology offers humanity, substantivists, on the other hand, view technology as largely embodying detrimental values of control, profit and power (Feenberg, 2002, 2004a, 2004b, 2006). This is not to say that efficiency has been taken out of the equation, but rather the technological means that provide the convenience of efficiency are also charged with other interests such as a preoccupation with the attainment of wealth or power through the domination of nature, the environment or other people (such as through mechanized labour). The conveniences and comforts afforded by technological means to attain wealth or control hold a persuasive effect which results in the outweighing of competing values such as those associated with tradition. The result is the edging out of other values by ever-increasing technologically mediated means of attaining profit, control, efficiency, and power. This has imposed a reliance on an entirely technologically mediated way of life that has become so pervasive it now defines our entire existence at the expense of more traditional ways. As Feenberg (2002) states with respect to such perspectives:

> The transition from tradition to modernity is judged to be a progress by a standard of efficiency intrinsic to modernity and alien to tradition… The issue is not that machines have 'taken over' but that in choosing to use them we are making many unwitting commitments. (p.8)

Thus, where determinist and instrumentalist perspectives serve to obliterate the connection between means and ends, which renders the technological means a mere value-neutral physical contraption, substantivists view the modern way of life mediated by technological means as encompassing ends (Feenberg, 2002, 2004a, 2006; see also Table 2.1). The various technological means designed to mediate such a way of life are

ultimately charged with the values motivating the attainment of ends such as control and attaining profit (Blacker, 1993). Therefore, from a substantivist perspective, technologies cannot be construed as benign or value-neutral, and are implicated in the negative impacts on modern societies and the fallout that has been inflicted upon the environment and certain social strata in pursuit of profit, wealth or efficiency (Feenberg, 2002, 2006). Where the outlook of the determinist perspective is marked by optimism, or even euphoria, as Winner (2005) describes, the outlook of a substantivist perspective is quite the contrary. However, the converging trait of these two perspectives that views technology as bearing self-directed characteristics limits socially influenced remedial possibilities to address any negative consequences they deliver. From a substantivist perspective, if technological development is beyond human influence, then the only options are to either set boundaries on it by limiting the pace of development and the use of it in favour of more traditional ways, or to continue with it in spite of its malign consequences (Feenberg, 2002).

In contemporary society, perspectives that lament the perceived distancing effect of the increasing preoccupation with digital telecommunications on off-line relationships serve as an example of dystopian perspectives that view technology as overtaking more traditional forms of relationships. Such perspectives, however, are not new. The pervasive and controlling effects of Orwell's telescreen in the novel *Nineteen Eighty-Four* is a classic portrayal of technology as an oppressive force. These positions view the pervasiveness of technology as directing the very way of life in modern society where people are forced to adapt to, or are controlled by, a technological world.

The work of philosopher of technology, Albert Borgmann (1992, 2004), also exemplifies the concerns of substantivism. While his views can hardly be considered as bleak as Orwell's fictional commentary, he does hold a predominantly substantivist perspective and deems that the current engagement with technology warrants reconsideration (Blacker, 1996; Feenberg, 2002). The language Borgmann (2004) uses in such statements as: "If we are to challenge the rule of technology" (p.126); "[technology] procures its own kind of order and security" (p.127); and "technology can produce instruments…" (p.128), imply an understanding of technology as possessing at least

some degree of self-determination and is exemplary of where determinists and substantivists converge. Further, Borgmann suggests that while technology entices us with the promises to control our natural and social environments in order to liberate us from "misery and toil", it has not lived up to this promise. It has instead completely appropriated and redefined virtually all activities of modern society.

According to Borgmann (1992, 2004), the high-tech environment that marks the modern era has detached individuals from a life enriched by *focal things*, or experiences that give our lives a deeper meaning. By instantaneous conveniences that afford certain conditions at the press of buttons or switches, Borgmann argues that we have become detached from interactions with more engaging experiences. Contrasting a family meal that involves generosity, preparation and nurturing with the shallow experience of a Big Mac meal, Borgmann (2004) argues that the pervasiveness of modern conveniences that afford us total control of our environment have resulted in a sense of boredom and lack of fulfilment; technology has taken over and stripped society of the texture and pleasures of pre-technological times.

In spite of his view of the imposing effect of technology, Borgmann (1992) does acknowledge some genuine benefit of modern technology such as improvements in health, transportation, and entertainment. He states:

> The peril of technology lies not in this or that of its manifestations but in *the pervasiveness and consistency of its pattern*. There are always occasions where a Big Mac, and exercycle, or a television program are unobjectionable and truly helpful answers to human needs. This makes a case-by-case appraisal of technology so inconclusive. It is when we attempt to take the measure of technological life in its normal totality that we are distressed by its shallowness. (Borgmann, 2004, p. 127)

In other words, it is not necessarily each and every technological device or technologically mediated experience per se that is assessed as malign. In some circumstances, technology can undoubtedly be appreciated for the good it serves. Rather, it is the ubiquity of technological systems with which he takes issue. These are largely driven by underlying culturally based desires to control. They constitute the current way of life and effectuate wide ranging repercussions such as the erosion of meaningful

practices more akin to pre-modern traditions. As such, rather than embracing and celebrating the conveniences of technologies, as is the case of the more optimistic perspective of determinists (as classified by Feenberg, 2002, 2006), Borgmann instead criticizes the technologically shaped way of modern life for the effects it imposes. Consistent with Feenberg's (2002, 2006) descriptions of the substantivist position, however, Borgmann has a tendency to view technology as having autonomous tendencies. As such, there is little that can be done through conscious human intervention to challenge the underlying controlling nature of technology and counter its largely oppressive impacts in favour of more humanitarian aims and results; human influence is therefore limited to restricting the pace at which technology is developed or tempering the use of technology via moral or political "boundaries" (Feenberg, 2006).

Given that he acknowledges certain benefits of some technological manifestations, Borgmann (1992) does not favour a complete rejection of technology. Further, given the pervasiveness of the rule of technology he suggests that embargos on technological development or prohibitions and legal sanctions to stifle technological projects would not be sufficient. Instead, he suggests a moral solution that involves getting back to a more real engagement with the world around us. This involves first, developing patience to counter immediate gratifications and allows for the revival of focal things, or the simpler things in life that entail meaningful interactive experiences so characteristic of pre-modern times. And second, communal celebrations that bring community together on common footing. These include, but are not limited to, religious devotion (Borgmann, 1992). Feenberg (2006) on the other hand argues that the values reflected in technology do not necessarily need to reflect control, domination or pursuit of wealth. Through democratic deliberation and participation, the shape of emerging technologies can be altered to reflect a different set of values. However, from a substantivist point of view, these considerations are closed off as the social influence in the negotiation or (re)design of technology is precluded through the understanding of technology as autonomous. Hence, democratic means to realigning the subjective goals of technology are not proposed as a possibility by Borgmann.

The common theme that emerges throughout the three perspectives presented thus far is that each has a tendency to stifle a critical appraisal of technological design, thus serving to undermine any consideration of the democratic participation in the politically charged process of designing technologies. By understanding technologies as value-neutral, for example, instrumentalists and determinists view the convenience of efficiency provided by technologies as serving the common good; technologies work for all (Feenberg, 2002, 2006). Such value-neutral understandings see technology as simply a composite jumble of inanimate material with no conscious bias to favour one set of values or another. Thus, any negative social or environmental consequences that result from technology are not viewed as a result of values inherent in the technology but are instead seen as a result of the manner in which the technology is used (Blacker, 1993; Feenberg, 2002, 2006; Winner, 1986). Therefore, so too are any means of countering such consequences. Given there is no reason to implicate the design, or its underlying values, in view of any negative consequences associated with the technology, any consideration of design alternatives is repressed as unnecessary and is deemed a non-issue (Feenberg, 2002).

On the other hand, albeit with similar effect, substantivists and determinists understand the development of technology as autonomous; the progress of technological designs is driven by some intrinsic plan (Feenberg, 2002, 2004b, 2006). From this perspective, human involvement lies more in the pace of technological development rather than the shape or design. Overlooking the social and cultural influence on technological designs, however, renders any consideration of influencing or instigating possible alternative designs an exercise in futility. Therefore, proposals for reform are limited and tend to be morally or politically based such as tempering our levels of engagement with technology in order to foster a return to more simple, traditional, or even more spiritually guided, ways of life (Feenberg, 2006).

A critically informed perspective, however, converges with instrumentalism and substantivism, which, according to Feenberg (2002), “preserves the best in both while opening up the prospect of fundamental change” (p. 5). This fundamental change basically equates to challenging power relations imposed by the political nature of

technological designs. It is made possible by a more critically informed approach that is not restricted to setting boundaries on the use of technology or the pace at which it is developed, nor is it based on responsible or informed use of technologies. Rather, it proposes democratic participation as a means to influencing the values reflected in emerging designs. The following section will detail the characteristics of critical theory of technology that raise the possibilities of such change. This will illuminate the relevance of critical theory to my purpose of analysing the political nature of the Facebook site, particularly with respect to evaluating the relationship between the competing values of privacy and commerce. Such a critical analysis could prove very useful in informing educational practices that develop digital citizenship capacities of young people.

***Critical theory of technology.***

Like instrumentalists, a perspective informed by critical theory of technology views the technological designs as being influenced by human decisions (humanly controlled). It does not, however, understand them as value-neutral or reflective of the single quality of efficiency. In this respect, it is more akin to a substantivist perspective and understands technological designs as reflecting certain values beyond the mere value of efficiency (value-laden) (Benkler, 2006; Feenberg, 2002, 2004a, 2004b, 2006, 2008; Feng & Feenberg, 2008; Lessig, 2003, 2006; Longford, 2005; Monahan, 2005; Winner, 1986). Understanding technological designs as value-laden and humanly controlled renders them politically charged and highly relevant to relations of power. They are therefore understood as possessing the potential to reinforce conditions that privilege some while placing others at a disadvantage (Feenberg, 2002, 2004a, 2004b; Longford, 2005; Winner, 1986).

This bears broad implications in a high-tech world. Individuals in modern society are increasingly engaging with digital technologies to conduct even the most mundane of daily activities (Longford, 2005). The designs of digital technologies and networks determine how interactions will take place, how they will enable certain activities and constrain others, and who will be afforded what access, who will be excluded, and under what conditions (Benkler, 2006; Lessig, 2006; Longford, 2005). These designs are built

to execute specific purposes such as serving commercial interests. As a result, the technological designs regulate the activities of technology users through functions that impose controls and conditions, and shape their digitally mediated experiences in ways that privilege the paramount aims. These technologically designed, or "encoded", forms of regulation essentially deliver legislative-like effects (Lessig, 2006; Longford, 2005, Feenberg, 2002, 2008).

The process of imposing regulation through technological design, however, differs in salient ways from the legislative regulations imposed through the standard political process. The legislative processes that govern our lives as members of liberal democratic societies are, under ideal conditions, subject to a more open and inclusive process (Lessig, 2006; Longford 2006). Although, activities such as corporate lobbying and media biases may act to undermine this deliberative process, theoretically, in a democratic society it is open to citizen participation and generally more accessible. The "silent legislation" imposed via technological design, on the other hand, is developed largely through commercially driven forums in the private sector which prevent participation in the developmental process. For example, concealing the source code, or the code that informs computer programmes to respond to and execute certain functions, excludes the wider Internet public from modifying it to better suit their own needs (Longford, 2005). And although digital technologies and technological systems, such as the Internet and the spaces comprising it, could be designed in a vast range of differing ways, the existing structures are taken for granted as a natural way of things and go largely unquestioned (Lessig, 2006). Thus, a critical understanding of technologies as value-laden structures that privilege certain interests, (such as through legislative type effects) and as humanly controlled, is integral to my purpose of examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. It is also crucial to challenging the power relations of technological designs through acts of democratic participation that might result in a different or broader set of values being reflected in emerging technologies.

For example, in accordance with substantivism, critical perspectives acknowledge that through value-laden functionalities, technology holds the potential to impose

suppression, misery or even catastrophic effects (Feenberg, 2006). Drawing on several theorists that promote democratic responses to technological systems and designs, however, Longford (2005) notes that the values embedded within technology are not inherently oppressive; "technology … can respond to the assertion of new goals and values" (p.73). Understanding technologies as value-laden and not merely reflecting values of efficiency or alternatively, being limited to only reflecting values of control and domination, could encourage users to ask questions beyond whether technology is good or bad. Rather, it could focus evaluations on whose or what interests are reflected in the technological designs. This reflective aspect of critical theory of technology is one vital aspect of creating possibilities to actively participate in the political struggle that is played out at the site of technologies (Feenberg, 2002). From a substantivist perspective, however, technology is self-determining. This serves to shut off the opportunity for citizens to influence the shape of emerging technologies, hence the moral or political limits on technology that are commonly proposed from a substantivist perspective (Feenberg, 2002). Thus, the key characteristic shared with instrumentalism which views technology as humanly influenced must also be acknowledged.

Similar to instrumentalism, critical theory of technology does not accept technology as the result of some inherent design plan; rather technological designs are perceived to be realized according to social and cultural influences. Once again this creates the opportunity to see technology as not *necessarily* embodying values that result in destructive or oppressive consequences but rather reflecting socially selected preferences embedded in the design (Feenberg, 2004b). Understanding technology as socially and culturally influenced allows it to be recognized as a politically charged device that "can be, and is, configured in such ways as to reproduce the rule of the few over the many" (Feenberg, 2004a, p. 1; See also 2002, 2004b). According to critical theory of technology, the possible range of effective configurations for any given technology is wide and varied. The realized designs, however, are selected specifically based on how well they serve certain interests and therefore they reinforce conditions that privilege some while placing others at a disadvantage. By understanding the design as socially influenced to meet subjective purposes, critically informed perspectives

understand that emerging technological designs can be influenced by democratic participation in order to render them responsive to a different set of values.

This recognition of technology as a locus of political struggle is highly significant as it opens the opportunity for consideration of democratic participation in technological design. It is central to what empowers users of technology to critically ponder such matters as to whose interests might a given design be responsive. It also elicits an appreciation for the possibilities of viable alternatives to existing designs and instigates consideration of acts of negotiation or resistance that might result in configurations that better represent a wider range of interests.

Given the possibilities opened up for technological reform and social change, critical theory of technology will inform my analysis of the Facebook site. It presents a framework that will allow me to highlight various design elements that work subjectively in the interests of various actors, such as members and site operators, and how the tensions between these competing interests are played out in the site. My aim is that such an analysis will provide an example to teachers to instil not only a higher level of critical awareness in their students but also a higher sense of efficacy with respect to democratically participating in the shape of emerging technologies in an increasingly high tech world. However, in order to increase such a capacity, it is crucial to make a clear distinction of what citizenship in such a highly technical age entails and the implications this presents for education.

## Citizenship and Citizenship Education in the Digital Age

With the ever-increasing prevalence of digital technologies comes an increasing notion of citizenship in relation to technology (Barney, 2005, 2006; Benkler, 2006; Digizen, n.d.; Coleman, Lieber, Mendelson, & Kurpius, 2008; Feenberg, 2002, 2004a, 2004b, 2006, 2008; Longford, 2005; Lessig, 2006; Kann, Berry, Grant, & Zager, 2007; Winner, 2005), and it is the notion of citizenship in relation to technology that bears particular relevance to this study.

Some scholars point out that modern technological advances have provided the means by which individuals can now collaborate, participate and inform one another on relevant social issues with greater ease than ever before (Digizen, n.d.; Kann et al., 2007). Thus, there exists an argument that a "digital citizen" is one who is empowered with the skills to exploit these technological means in order to participate and contribute to democratic processes (Digizen, n.d.; Kann et al., 2007; Mossberger, Tolbert, & McNeal, 2007). However, although technological advances have created convenient and accessible means to penetrating and contributing to political processes, the evidence as to whether or not this actually results in a higher degree of political involvement is questioned (Barney, 2006; Dahlberg, 2005; Winner, 2005). Winner (2005) states that "[s]o far, the coming of the personal computer and the Internet have done little to alter the increasing tendency of a great many citizens to avoid going to the polls" (p. 126). And the surveillance and storing affordances that are currently designed into digital technologies actually have the potential to dampen democratic debate, whistle blowing and public dissent or critique of authority for fear of reprisal (Goldman, 1999; Lessig, 2006; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007), as do the filtering effects that allow us to limit our online experiences to only the views that are most congruous with our own (Sunstein, 2001). As Barney (2006) argues, while technologies could have the potential to facilitate easier participation as a democratic citizen, it is erroneous to automatically assume that technologies are "prefigured" to serve this desired outcome.

Questioning the assumption that technologies are inherently "prefigured" raises a crucial point. The point is that technologies are designed with a specific goal in mind. This design selection is a political process that involves competing values and results in biases reflected in the design that favour certain interests over others. However, there is a wide and varied range of design options which could serve to meet any goal (Benkler, 2006; Feenberg, 2002, 2004a, 2004b, 2006, 2008; Feng & Feenberg, 2008; Lessig, 2003, 2005, 2006; Winner, 1986). Winner (1986) describes this range of options as design flexibility. He states that this flexibility requires an understanding of the "social actors able to influence which designs and arrangements are chosen" (p.38). Recognising the social influence in the design selection could allow greater collective participation in the political struggle of the design process and design selections which could result in

different interests being reflected in emerging and future technologies (Barney, 2006; Feenberg, 2002, 2004a, 2004b, 2006, 2008; Lessig, 2006; Longford, 2005; Winner, 1986, 2005).

Unlike the transparency of the political process in democratic societies, however, the design process of technologies does not take place in the public arena. They are generally the result of private and commercial initiatives and therefore escape public deliberation (Barney, 2006; Lessig, 2006; Longford, 2005). This understanding raises the stakes of citizenship in a highly technological age. Armed with a critical awareness of the political nature of technological design, citizenship becomes more than simply exploiting new technologies as means of democratic participation or applying a certain use. It involves questioning the interests that are privileged through existing technological designs and applying a more democratic process to emerging designs through acts of resistance and negotiation (Barney, 2006; Benkler, 2006; Feenberg, 2002, 2004a, 2004b, 2006, 2008; Lessig, 2006; Longford, 2005; Winner, 2005).

Increasing the capacity of citizens to respond more effectively to democratic aims bears significant implications on educational practices. Part of the challenge, however, is that opinions of exactly what characteristics constitute a strong civic education program are varied and contested (Levine, 2007; Kymlicka & Norman, 1994; Westheimer & Kahne, 2003, 2004). The aims of preparing students to critically analyse the values underlying technologies, and the call for their collective responses to challenge designs gives some indication of what might be fruitful in this case. Amy Gutmann (1990) points out that "democracy is ... valuable for enabling societies to govern themselves rather than being governed by an intelligence unrelated to their nature" (p.18). Such a sentiment presents an attractive ideal in a social environment where ever-increasing aspects of our lives are being mediated by technologies, particularly when the design of technologies largely exclude public input and are instead designed in the private and corporate sector and are designed to privilege the corporate interests. In order to promote citizen participation in this governing process, Gutmann (1990) goes on to describe a need to shift the current educational goals from a focus on preparing children for their future

occupations to one that aims to increase the "cultivation of the virtues, knowledge, and skills necessary for democratic deliberation" (p. 19).

These elements could indeed provide the basis for an educational program that might adequately prepare students to appreciate the need to democratically participate in challenging technologies. Such requirements would include the critical awareness of the politics of technological designs, an appreciation for common endeavours and acting beyond one's own self-interest, and the practical skills conducive to participation in political causes. As an approach, however, Gutmann's (1990) aims remains very abstract. On the other hand, as a result of a study on programs that educate for democracy, Westheimer and Kahne (2004), set out some very concrete approaches that compliment Gutmann's aims for educating for democratic deliberation.

The two curricular agendas Westheimer and Kahne (2004) promote as most conducive to advancing democratic purposes are programs that develop participatory citizens and programs that develop justice oriented citizens. While these programs might overlap, they do not necessarily do so. Thus, in order to develop citizens that might be prepared and inclined to participate in democratic endeavours students could benefit from exposure to practical projects oriented in change combined with: 1) the knowledge of how government works and how to examine political issues, 2) an appreciation for the value and benefits of being involved in collective issues, and 3) the practical skills for activism and informed involvement. For the justice oriented aspects of citizenship, students might benefit from: 1) a developed sensitivity for the perspectives and needs of others, 2) the ability to recognize injustice, and 3) understanding of how established systems work (Westheimer & Kahne, 2004). Thus, a combination of these curricula might equip students well to critically understand the political nature of technological designs, appreciate their role in civic affairs and acting beyond their own self interest, and generate insight into the practical activities that might afford them a voice in shaping emerging and future technologies. It is through the development of such knowledge, skills and values that citizens might become empowered to consciously partake in the shaping of their society and it is with such empowering objectives in mind that this study is undertaken.

## Conclusion

In this chapter I set out to review the existing literature relevant to my purpose of analysing the political nature of the design of the Facebook site and examining how it serves as a scene of struggle between the competing values of commerce and privacy (Feenberg, 2002, 2004a, 2004b, 2006, 2008; Feng & Feenberg, 2008; Longford, 2005). Such an examination might assist teachers in promoting critical citizenship by increasing students' capacity to question the politics embedded in the technologies with which they engage and equipping them with the competence to submit technological designs to a more democratic process. This review will serve to position my study within the existing literature and demonstrate the worth of its contribution to the current state of inquiry. I began with an analysis of current literature relating to young peoples' engagement with social networking sites. These studies revealed a focus on the purposes it serves in the lives of young people with respect to identity formation and maintaining social connections (Barnes, 2006; boyd, 2008; Bumgarner, 2007, Coyle & Vaughn, 2008; Ellison, Steinfield & Lampe, 2007; Hinduja and Patchin, 2008; Livingstone, 2008; Raacke & Raacke-Bond, 2008; Subrahmanyam & Greenfield, 2008; Tynes, 2007). The purposes are seen as serving worthwhile developmental and socializing purposes in the lives of users while the risks posed to privacy tend to be downplayed in such literature. Further, the risks, when acknowledged, largely relate to those posed at an individual, or personal level where one individual might become a victim at the hands of another user through behaviours such as bullying, stalking or identity theft. The solutions to such risks rested in raising levels of awareness of how to responsibly use such sites to protect oneself.

The second theme of literature reviewed considered the purpose social networking sites served to the operators of such sites which present risks of a different sort. I reviewed the research pertaining to the processes of personal data collection, management and trade, and how this serves as a lucrative commercial purpose in digital spaces (Fernback & Papacharissi, 2007; Lyon, 2002; Phillips, 2004; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). This led into the literature relating to the ambiguous nature of the definition of privacy. The literature illuminates how different

definitions serve different rhetorical purposes as privacy is often subtly positioned in the discourse to compete against other values such as national security, anti-crime initiatives, and economic objectives (Raab, 1999). In this context, privacy infringement may still have implications on a personal level, such as through the creation of detailed personal profiles to which entities such as prospective employers or insurance providers might purchase access, but more subtly, privacy infringements on this scale may undermine democratic rights such as free speech and autonomy (Goldman, 1999; Lessig, 2006; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). These institutional-level infringements have been overlooked in the literature on social networking sites, which as noted above, instead highlight the threat of being victimized by other users. My study highlights the benefits of looking beyond the privacy implications posed by the careless surrender of personal information to other users while engaging in social networking sites. It provides exigence to raising awareness of the commodification of personal information that is now made possible through digital spaces such as social networking sites - sites that currently engage hundreds of millions of people and counting.

There already exist solutions to counter the privacy infringements that take place in digital spaces in the form of privacy enhancing technologies (PETs), policy and regulatory means, and social solutions. While PETs might make it difficult for personal information to be harvested or might make the process of information collection transparent to users, thus allowing them to respond accordingly, such technologies are complex enough so as to exclude many mainstream users of digital spaces (Lal Bhasin, 2006; Phillips, 2004; Starke-Meyerring & Gurak, 2007). With respect to policies, the commercial friendly regulation and legislation relating to privacy and the use of personal information in the United States, where sites such as Facebook are hosted, leaves members at the mercy of website operators' goodwill. Although familiarity with documents such as website privacy policies and terms of use or term of service makes for basic common sense, such documents are notorious for their intentionally vague presentation of site practices (Chung & Grimes, 2005; Fernback & Papacharissi, 2007, Lal Bhasin, 2006; Markel, 2005) and therefore, do not singlehandedly provide an adequate solution. And finally, while the value of the current social solutions that promote responsible *use* of digital technologies are not to be understated, the focus is on

individual threats posed by individual perpetrators. However, this study aims to draw attention to an entire element of systemic threats posed by digital technologies such as Facebook, and the implications that such threats could have on basic democratic rights such as free speech and autonomy.

It therefore becomes apparent that a more robust critical approach is warranted in order to instigate collective responses to the issues of privacy infringement in the context of digital spaces. The discussions in the literature relating to critical theory of technology have advanced the notion that technological designs themselves are the site of political struggle. They work to advance certain interests over others and hence work to reinforce existing power structures. From a perspective informed by critical theory, the means to addressing issues of privacy arising in digital spaces do not call for responsible and informed *use* of technology. Rather, it calls for a citizen response to participate in the negotiation of emerging technological *designs* and subjecting design selection to a more democratic process (Barney, 2006; Benkler, 2006; Feenberg, 2002, 2004a, 2004b, 2006, 2008; Lessig, 2006; Longford, 2005; Winner, 2005).

This theoretical perspective will inform my analysis of the Facebook website. Viewed through this lens, I intend to demonstrate that by designing the site to serve the basic purposes of allowing users to maintain social connections, the surrender of rich stores of personal information is facilitated, which serves the commercial agenda of the operators. By analysing this political process, I hope to provide teachers with not only the necessary insight, but a concrete example of how critical analysis in the digital age could promote participation in the negotiation of technological designs.

# Chapter Three – Methodology

## Introduction

Throughout the preceding chapters I have been presenting critically informed discussions that argue how technological designs are the sites of political struggle that contribute to hegemonic processes. My purpose with this project is to generate an understanding of what a critical analysis of Facebook might yield for citizenship education by critically examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. This critical analysis of Facebook might help teachers to increase their students' capacities to democratically participate as digital citizens in the politics of the design process and thus challenge the power relations that are effectuated through technologies. Such capacities, however, require not only a critical understanding of technological designs as political structures; they also require skills in democratic participation through actions that might influence the values and interests reflected in emerging designs. Raising such capacities is crucial to empowering users to question the political nature of technology and to appreciate the possibilities of challenging its hegemonic effects.

Currently there seems to be a lack of critical assessment informing and influencing everyday engagement with technology. Facebook presents a compelling example as it has proven to be phenomenally popular with a worldwide membership beyond 200 million (Facebook, 2009e). Yet it has received ambiguous reviews from educational perspectives. On the one hand it is often banned in educational contexts for reasons such as safety and privacy concerns or for simply being a distraction and waste of time. On the other hand it is touted as a valuable educational resource that could increase students' responsible internet use. While I acknowledge that raising concerns about responsible use of digital technologies is a valid sentiment, I also argue that it tends to limit evaluations of technology, assessing them as simply either good or bad. These simplified evaluations of technology overshadow the political nature of technologies as socially influenced designs that serve subjective purposes with relative consequences. Without an understanding of technological designs as inherently political, the possibilities

for alternative design options are averted (Feenberg, 2002). It is this understanding of the political nature of technologies and the possibilities of democratically participating in alternative designs that are crucial to my analysis of Facebook as a site of struggle between privacy and commerce.

My overall purpose with this project is to generate an understanding of what a critical analysis of Facebook might yield for citizenship education by critically examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. Thus, I set out to address the key research question:

> What insights might a critical analysis of Facebook's technological design yield for digital citizenship education in schools, specifically for questions around privacy and commerce?

In order to address this key question, I critically examined aspects of the site design that demonstrate ways in which it simultaneously serves different interests with relative consequences. Thus, I posed the research sub-question: How does the technological design of the site serve the interests of various actors such as users or operators? Given the social value of privacy (Goldman, 1999; Lessig, 2006; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007), the interested nature of its varied definitions (Raab, 1999), and discussions relating to the balancing act between privacy and competing values such as commerce (Raab,1999), I also responded to the sub-question: How does the site design encourage and normalize the sharing of personal information by it is users and for what or whose purpose? Analysing different aspects of the site through a critical lens provided a means to addressing these questions and allowed me to illustrate how the Facebook design serves as a site of political struggle between differing, even competing, interests and the ways that certain interests are privileged by the design of the site. The critical analysis also provides a model for educators that demonstrates what is involved in critically questioning a technology. I conclude by considering what the findings of my critical analysis mean in practice and thus ask: What are the implications of the analysis results for digital citizenship education? My hope is that this study will provide enough theoretical background and a sufficient practical example to allow educators to inspire their students to undertake critical appraisals of the various technologies with which they

engage and encourage them to exercise their potential to democratically participate in activities that might influence the interests reflected in the design of emerging technologies.

Broadly speaking, my qualitative research study is a political project that is informed from an advocacy epistemological position and will proceed through a critical theoretical perspective, or "lens". I will conduct a single embedded case study methodology and will employ multi-method data collection and analysis procedures including observation/participation, documents analysis and analysis of physical, or more accurately in this case, virtual artefacts. The following sections will explain the characteristics of these elements of the design framework and will explain my rationale for proceeding accordingly.

**Advocacy Epistemological Position and Critical Theoretical Perspective**

As indicated above, my purpose is to understand what a critical analysis of the political nature of Facebook might yield for citizenship education. My hope is that this project might support teachers to promote digital citizenship education by increasing students' capacity to understand technological designs as political structures and submit them to a more democratic process. A deeper critical understanding of the political nature of technologies will allow citizens to assess the values embedded in technological designs and facilitate democratic participation in negotiating the values reflected in future designs. To accomplish this I am exploring what the design of the Facebook site might yield with respect to issues around competing values such as privacy and commerce, how the site serves the interests of various actors and how it promotes the sharing of information. These queries are informed by a critical perspective with an aim of illuminating the politics embedded within the design of the Facebook site. As such, the knowledge claims from which this study is designed are founded in an advocacy epistemological position. Such a position allows me to raise questions about democratic participation in activities that might challenge the hegemonic processes that occur at the locus of technological designs.

According to Cresswell (2003), advocacy/participatory perspectives evolved as a result of inquirers finding that constructivist approaches were insufficient in "advocating for an action agenda…These researchers believe that inquiry needs to be intertwined with politics and a political agenda." (p. 9). Critical theory provides an appropriate theoretical perspective to compliment this epistemological stance. Critical inquiry interrogates commonly held views and ideology with the intent of implicating social relations in oppressive and hegemonic processes. Questioning dominant assumptions and exposing the power relations they perpetuate opens up a means of acting for change (Crotty, 1998; Gray, 2004). In the case of the study at hand, it is the critical theory of technology, specifically, that has been deployed to integrate with an advocacy epistemological stance to inform this politically oriented research project.

These combined knowledge claims are an appropriate means to informing a research design consistent with achieving my purpose. Raising levels of critical awareness challenges common assumptions of technology as a neutral tool or technological development as a self-driven force and instead promotes an understanding of technological designs as a socially influenced and politically biased. An analysis conducted through such a lens allows for the critical examination of the politics of the Facebook site where the values of commerce and privacy intersect. Examining the political interplay of these values the locus of the Facebook site reveals important insights regarding the social implications of technologies that are design to collect the personal information of hundreds of millions of members. Further, critical understandings of technology as socially influenced could instigate an appreciation for democratically participating in activities that might challenge the values and thus the interests that are currently privileged in technological designs.

## Rationale for Case Study Methodology

As a means to critically analyzing aspects of the Facebook site, I have opted to execute a single-case embedded case study methodology. According to Yin (2003), the methodology an investigator chooses as an appropriate means to conducting research is contingent on three conditions: "(a) the type of research question posed, (b) the extent of

control an investigator has over actual behavioural events, and (c) the degree of focus on contemporary as opposed to historical events" (p. 5). I explain how each condition relates specifically to a case study strategy and how this choice aligns with my theoretical lens and my research questions, thus serving to justify my adoption of a case study strategy in this instance. Following this, I explain the term 'single embedded case study' and explain why it was suitable for proceeding with the research study at hand.

With respect to the first condition - the type of research question posed - the case study strategy is deemed to be advantageous when "a 'how' or 'why' question is being asked" (Yin, 2003, p. 9; see also Gray, 2004). The two "how" sub-questions posed with respect to this inquiry are consistent with the criterion specific to the question type. They allowed me to examine first, how the competing values embedded in the technological design of the site serve the interests of various actors, such as users or operators, which, through a critical lens, allowed me to demonstrate the disparity of how these interests are served. In other words, it allowed me to demonstrate how the interests of some are privileged over others. Secondly, it allowed me to critically question how the site design encourages and normalizes the sharing of personal information by its users and for what or whose purpose, which again helped illuminate the politics of how the interests of some are privileged over others through values embedded in the design of the site. Interrogating this political struggle that takes place at the locus of the Facebook site challenges common notions of technologies as either simply good or bad and generated insight with respect to the implications for citizenship education.

Yin (2003) states that the second condition investigators need to consider when planning a research project relates to the extent of control they will have over actual behavioural events. With respect to case studies, the boundaries between the phenomena being investigated and the context within which these events take place are seen as highly interrelated or interdependent (Gillham, 2000; Gray, 2004; Yin, 2003). Thus, intentionally extricating and manipulating the phenomena, as is the case of strategies such as experimentation, would not feasibly produce meaningful interpretations. Therefore, the events being investigated are examined in their real-life context where the researcher has no control (Gillham, 2000; Gray, 2004; Yin, 2003). With respect to analysing the

Facebook site, the real-life context, is precisely the environment within which I wished to examine its political bias that serves various interests with differing relative consequences and examine how it normalizes the sharing of personal information to serve different purposes. Such critical examination not only allowed me to observe and describe the political nature of its technological design, it also fortified the urgency of my study given the current size of the membership and rate of uncritical engagement. As such, a case study strategy of inquiry conducted through a critical lens was both practical and desirable to my purpose of understanding what a critical analysis of the politics of the design of the Facebook technology might yield for citizenship education and increasing democratic participation in the process of challenging power relations reinforced through technological designs.

The third condition to be considered when planning an appropriate strategy of inquiry is the degree of focus on contemporary as opposed to historical events. It is this time sensitive element that distinguishes a case study as favourable over conducting a history (Yin, 2003). The two strategies actually overlap in the technique used such as in analysis of documents or artefacts. A case study strategy, however, has the advantage of observing or collecting evidence from a contemporary "here and now" context (Yin, 2003). In the case of my study, a case study methodology was pertinent given the contemporary nature of my research concern. It was actually the *present* uncritical understandings of technology that I wished to address. Thus, critically analysing the current and phenomenally popular social networking site, Facebook, provided not just a familiar and concrete case, but also one that is highly relevant to the lives of students and teachers; if they are not personally current members, there is at least a high likelihood that they have at least been invited to join in the relatively recent past. This relevancy underscored the current and potential future implications of such vast uncritical engagement, particularly with respect to issues of privacy. It should be noted, however, that the intention behind critically examining Facebook as a unit of analysis was not simply about the politics of the design of Facebook specifically. A critical analysis of Facebook was intended as a particularly prominent representation of digital technologies and technological systems more generally. Thus, it was meant to reinforce the exigency of critically assessing the range of these technologies we engage with on a virtually daily

basis as well as to facilitate an appreciation for democratically participating in the political struggle that takes place in their design.

Of the conditions upon which I weighed the rationale for opting to conduct a case study, two are specifically consistent with the characteristics of qualitative research. The first is the open-ended and interpretive nature of the questions posed which ask how the Facebook site serves the purposes of different actors and how it normalizes the sharing of personal information. The second characteristic relates to the pertinence of the natural setting of the site of my investigation in order to answer these questions. As noted earlier, it would not have been feasible to address my questions or my overarching purpose through a quantitative approach, such as experimentation (Cresswell, 2003; Marshall and Rossman, 2006). Further, as will be examined in more detail in a later section, a central feature of case study research is the multi-strategy approach to data collection and analysis. This is also a typical characteristic of qualitative research, hence the qualitative case study design of my research.

Although the above has outlined my rationale for adopting a case study strategy of inquiry, the case study itself can be deployed via a range of designs. For the purposes at hand, I opted for a single-case embedded design. I first explain my rationale for opting for a single case study research design and then go on to explain the term 'embedded' and why this specific design was suited to my purposes.

Adopting a single-case design means simply that rather than considering multiple cases, I analysed a single case: the Facebook social networking site. While Yin (2003) outlines a number of justifications for choosing a single case methodology, the one that stands out as most pertinent in this instance is when a case could serve as a typical or representative example of other entities like itself. Further, he states, "The lessons learned from these cases are assumed to be informative about the …average person or institution" (Yin, 2003, p.41). Thus, conducting a single case study allows me to focus on one specific technological design, the design of the Facebook website, in order to first interrogate how the design of the site serves the purposes of different actors and second, to examine how it normalizes the sharing of information and for what or whose purposes.

Critically analysing the complex relationship between the purposes that the site serves for users (social connection and identity formation) and the purposes it serves the site operators (commodification of information), coupled with the analysis of how the sharing of information serves varied purposes, illuminates the political nature of the site and challenges the common notion of technologies as simply good or bad. Further, one of my intentions was to provide a model of what might be involved in analysing a familiar technology; a single case study of Facebook provides such a model. To reiterate the words of Yin (2003), "The lessons learned from these cases are assumed to be informative about the ... average person or institution" (p. 41). Thus, the analysis of Facebook could provide an example to educators and their students of what is involved in critically assessing everyday technologies and hopefully will empower and inspire them to conduct their own appraisals of other social networking sites, online spaces, or even other technologies more generally.

I now turn to the rationale for conducting an "embedded" single case study. All case studies, whether single or multiple can be holistic or embedded (Gray, 2004; Yin, 2003). Holistic indicates that the case itself is the single unit of analysis. In embedded case studies, sub-units of analysis within the case are analysed either in addition to, or instead of analysing the case as a whole. In this sense, by employing an embedded single-case research design I was able to analyse various aspects of the Facebook site, such as the Privacy Statement and Terms of Use, the process of creating an account and personalizing a profile, exploring the privacy settings, and so on. The following will outline the relevance of my selected sub-units of analysis to my overall purpose and how these selections were guided by my theoretical framework and research questions.

## Sources of Evidence and Data Collection Procedures

A fundamental characteristic of case studies is the collection and analysis of data or evidence from a variety of sources within the case setting (Gillham, 2000; Gray, 2004; Yin, 2003). Although not specific to the case study strategy, it is of particular importance in such modes of inquiry "because of the reliance on data that is generated from either limited or particular samples or situations" (Gray, 2004, p. 135). The analysis of the

various sub-units in my case study involved collecting and analysing documentary information, and observation of, and participation in, certain aspects of the site including: working through the Sign Up procedure to create an account; personalizing a profile; and editing the privacy and application settings.

***Documents***

The first sources of evidence collected were several documents that set out Facebook's policies, conditions and terms of use, and guidelines for using the site. Although the range of documents on the site that serve such purposes goes well beyond what was examined in this study, the documents analysed for my study include the Privacy Policy, Terms of Use, and the Platform Application Terms of Use. These types of documents are not exclusive to Facebook as most websites have written their own documents of a similar nature. The general stated purpose of such documents is to explain what information the site collects and how it uses and manages such personal information as well as to explain the rights and responsibilities of users.

These documents allowed me to: 1) examine what information is collectable and collected through the site design and how the site operators use this personal information, 2) gain insight with respect to the how the operators define privacy, how this definition informs their use of personal information, the way the site is designed to inform the membership of their privacy rights, and the recommendations with respect to protecting their privacy, and 3) the discourse used to promote the practices of sharing information. Thus, a critical analysis illuminates how the technological design of the site serves the purposes of users as well as the purposes of operators in different ways, thus hosting a struggle between varied interests. The documents were therefore relevant to answering both my research sub-questions regarding how the site serves the purposes of different actors and how it advances the sharing of information and for what purpose.

It should be noted that at first glance, an analysis of the documents seems like an instrumentalist approach as they reveal much with respect to how the operators *use* the site to generate personal information and how users might *use* the site to protect their information from others. However, it is important to bear in mind that from a critically

informed perspective the information collecting capabilities of the technology that are discussed and revealed in the site documents are a result of functions that have been *designed* to meet specific purposes.

### *Observation of and Participation in Various Site Procedures*

The next sources of evidence collected relate to various procedures within the site that offer a deeper level of interaction than the one way transmission of information that is analysed in the documents. These procedures included the Sign Up procedure to create an account and become a member of Facebook, the steps and options available to personalize a profile, and the options for editing the privacy and application settings. The following will explain my rationale for choosing to analyse these particular aspects of the Facebook site.

#### *The Sign Up procedure.*

My analysis of the Sign Up procedure was again motivated primarily to address the sub-questions of my research. First, my intention was to examine the ways in which the design of the site acts to elicit the sharing of personal information and for what or whose purpose. According to critical theory of technology, technology works as a form of legislation by allowing certain actions and constraining others. Therefore, I considered how the sharing of information enabled certain actions while non-compliance with the request for information had constraining effects on user activities and access. The Sign Up procedure also reveals much with respect to the repeated use of rhetoric to promote information sharing as a means for users to access some sort of benefit. The Sign Up procedure also yields rich information with respect to the ways that the site promotes a specific definition of privacy in order to further normalize information sharing. This allowed for a critical interpretation of the intended effect of advancing such a definition of privacy and for what or whose purpose.

#### *Profile creation and editing.*

The process of creating a profile was again relevant to critically analysing the ways that the design of the site works to elicit specific information about members and it

was also again revealing with respect to the varied purposes it serves for various actors. It is here that users have a greater opportunity to express their identity. However, while this process serves a specific purpose for users, it also places a very rich source of information at the disposal of the operators. Thus, from a critically informed vantage point, I examined the political struggle that takes place within the site and the role the design of the profile pages plays in privileging various purposes.

***Privacy and application settings.***

Collecting evidence relating to the privacy and application settings followed a very similar process to that of the profile editing. I moved through the various pages, investigating and recording various setting as well as the information provided by the site that explained the workings and purpose of the settings. Given the wide range of combinations amongst the privacy options available I took several varied sample screen shots and supplemented these with descriptions of the various ranges and combinations rather than compiling a comprehensive record of screens. Some of the screen shots will be incorporated into the discussion section to enhance the presentation of the findings with a visual reference.

Although privacy and "control" of personal information is the stated objective of the privacy settings, it is also highly pertinent to the various settings relating to applications. As such, the particular notion of privacy advanced by the site is highly relevant to the analysis of these aspects of the site and therefore, the definition of such was closely and critically examined. Further, the analysis of this section allowed me to explore and interpret the accessibility of the settings with respect to the protection of personal information from various parties (i.e. from other users and from applications). This yielded some insight into the biased nature of the technological design of the site.

## Limitations of the Study

Facebook as a private enterprise presents a limitation of this study. Unlike a publicly held company, as a private business, Facebook is not accountable to public stockholders. Therefore, it is not legally required to reveal the details of its earnings.

Accordingly, last year the CEO of Facebook, Mark Zuckerberg, professed Facebook's "advantage of not necessarily having to report to the outside world all of [their] financials" (60 Minutes, 2008). It comes as no surprise then, that a finely detailed analysis of the Facebook business model has proven elusive.

There does exist some evidence, however, that supports Facebook's status as a viable company. In May 2009, Digital Sky Technologies invested 200 million dollars in Facebook, representing a 10 billion dollar valuation of the company [2]. Further, Sheryl Sandberg, Chief Operating Officer of Facebook, stated in an interview with Stephen Alder of BusinessWeek that "our business is advertising...it's actually working very well... and we're doing really well financially" (Alder, 2009). Stephen Haines, Facebook's UK sales director echoed the prominent role that advertising apparently plays in Facebook's business strategies. In an interview in Campaign (2009), Haines explained that the vast membership of Facebook offers advertisers the opportunity to "target" their advertising to a broad range of interests. This, according to the interview generates substantial revenue for Facebook (Campaign, 2009).

Without a complete analysis of Facebook's business model it is difficult to tell exactly how prominent advertising is in their overall revenue strategies, or exactly how the company grew to a multi-billion dollar valuation since its inception in 2004. However, as the findings of the critical analysis of the site will show, the elicitation of information could indeed prove lucrative for informing practices of targeted marketing. While this information is not directly sourced from the analysis of the technology of the site, it does partially respond to the research sub-question which asks: How does the site serve the interests of different actors such as site operators (and users)? And it does, in an indirect way, respond to the limitation of Facebook as a private company with discreet financial details.

The evolving nature of the technology of the Facebook website presented another limitation of this study. The interface of the site pages, the information provided on them, the various functions of the site and the documents (i.e. Privacy Policy and Terms of Use

[2] At the time of investment the valuation represented 10 billion dollars. Recent searches of several random internet sources indicate this valuation has wavered in recent months and has dipped by several billion dollars to approx 6.5 billion.

etc.) are all in an ever-evolving state of transition. Well into the process of analysing the data collected for this study, Facebook experienced a backlash from the membership as the operators tried to implement new Terms of Use. The document was withdrawn in response to the membership, the old Terms reinstituted and the new Terms redrafted. The membership was then allowed to vote on which they preferred. The new document was implemented on 1 May 2009, under the title: Statement of Rights and Responsibilities. Although the backlash of members was in response to Facebook practices, it was not a change in their practices that resulted in the new statement, it was a change of the wording of the document. And although the new document was in response to the results of 600 thousand voting members, their input had no effect on the information management practices of Facebook, as these practices remained unchanged. It should be noted that as my analysis, which was based on the original Terms, was near completion by the time the new document was introduced, I followed through with the analysis as such. Further, as I had created a record of screen shots while collecting data on other aspects of the site, my analysis of these is also based on the initial screens and processes I had gathered during the early data gathering process in spite of any changes that Facebook may have made to these. However, according to critical theory, technological designs are embedded with values and are politically biased structures. Therefore, in spite of the constant change that has taken place and will continue to take place, and in spite of my adherence to the original data I had collected, it is my belief that the political and biased nature of the site will persist and the privileging of certain interests remains unchanged at the locus of the Facebook site.

Another limitation is that this study does not use any sources of evidence that involve human participants, such as, for example, to study their interactive tendencies with the site or the meanings they attribute to their experiences with the site. My purpose, however, is to understand what a critical analysis of Facebook might yield for citizenship education by critically examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. My hope is to promote critical citizenship education by increasing awareness of the political nature of technologies and the possibilities for democratically contributing to the interests reflected

in emerging technological designs. As such, a critical analysis specifically of the design was an appropriate means to addressing the particular purpose of my study.

## Conclusion

This section has outlined the design of my study and provided a rationale as to why this specific research design was appropriate to meeting my larger purpose. My purpose, as has been indicated, is to generate insight regarding what a critical analysis of Facebook might yield for citizenship education by critically examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. My hope is to explain how teachers might promote the capacity of students as critical citizens in the digital age to critically evaluate the values underlying the technologies with which they interact and to democratically participate in the political process of influencing the values embedded in emerging technologies.

To meet my purpose I conducted a qualitative single-case embedded case study informed by an advocacy epistemological position integrated with a perspective informed by critical theory of technology. With Facebook as my unit of focus of the case study, I analysed the following aspects of the site which constitute my sub-units of analysis: 1) a selection of Facebook policies and statements 2) the Sign Up procedure 3) the profile editing pages 4) and privacy and application settings. My aim in analysing the data collected from these sources was to illustrate that the Facebook technology is the result of design decisions that are informed by larger values and which are made to privilege certain outcomes and thus, certain interests. By demonstrating the political nature of the design, my hope is to provide teachers with a model that could serve as a reference to aid efforts in promoting critical citizenship with respect to critical engagement with technology. Fostering a more critical approach to the use of technology could open the door to challenging designs of technology through acts of negotiation and resistance, thus submitting design selection to a more democratic process and future technologies to possibly reflect a different set of values.

# Chapter Four - Analysis

## Introduction

Chapter Three described my approach to conducting this study which aims to generate an understanding of what a critical analysis of Facebook might yield for citizenship education by critically examining the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. My hope is that this insight could support teachers to expand the citizenship capacities of young people to critically evaluate technologies with which they engage and democratically participate in the process of influencing the values that might be reflected in emerging technological designs. In order for students to become competent digital citizens, they must develop an understanding of technological designs as political structures that are socially influenced to serve subjective purposes. Understanding that technological designs are socially influenced to privilege some interests and purposes over others is necessary to questioning the values embedded in designs and to fostering democratic participation that might influence the values reflected in emerging technological designs (Feenberg, 2002).

This case study of the design of the Facebook social networking site involved examining ways in which it acts as a locus of political struggle and is biased to serve certain interests over others. Given the complexity and scope of the Facebook site, it is impossible to conduct a comprehensive analysis of the site in its entirety within the confines of this study. Therefore, four aspects of the site were selected to generate evidence of the political nature of Facebook's design. These four sub-units of analysis include: 1) a selection of various Facebook documents that are particularly pertinent to practices of data collection and management, 2) the Sign Up procedure, 3) the creation of a user Profile, and 4) various Settings, particularly with respect to privacy and applications. Although each sub-unit is largely presented within a specific heading that bears the title of the sub-unit, there is inevitably an overlapping effect amongst the sections, which is due to the heavily integrated nature of the various aspects of the site. The critical analysis addressed the first two research sub-questions of this study. It

involved investigation of the selected aspects of Facebook in order to generate understanding with respect to how the design of these sub-units of analysis serve the interests of various actors such as users or operators, and how the site design encourages and normalizes the sharing of personal information by its users and for what or whose purpose. This chapter presents the findings of this analysis, which demonstrate the biased nature of the design and concludes by addressing the third research sub-question by discussing the implications of the analysis results for digital citizenship education. It outlines the procedure for examining each sub-unit of analysis while highlighting the strategic design functionalities that elicit information sharing. From this procedural description, key themes begin to emerge that shed light on the biased nature of the design that serves to privilege the corporate interests of the site.

It begins with a description of the procedure undertaken to analyse three Facebook documents. The Facebook Principles/Privacy Policy is first critically analysed followed by aspects of the Platform Application Terms of Use and finally the Terms of Use. The analysis reveals various strategies reflected in these documents that encourage the surrender of information. These strategies include: repeating statements of how the sharing of information is a normal practice that results in benefits for the user, yet the commercial value of such information for Facebook is virtually omitted; advancing a narrow definition of privacy as a value to be protected from other users, thus advancing the site's privacy functions as a means to controlling personal information while obscuring the systemic infringement of privacy imposed by the technology of the site; contradictory, vague or confusing statements that make it difficult for users to make an well informed decision; and advancing the site's connection with external privacy monitors to imply integrity of the site and suggest that user privacy is at the forefront of Facebook's agenda.

The next sub-unit of analysis that is presented in the chapter includes a description and critical examination of my participation in the Sign Up procedure. I describe my observations and interpretations of the information requested on the first Sign Up page, the email message received from Facebook that verifies the validity of the account and the three-step process that initiates a new member. The various strategies again become

apparent with respect to encouraging the sharing of information, including: the continuation of assuaging rationales promoting the benefits of sharing information and the recurrence of a limited definition of privacy that diverts the focus from privacy infringing technologies to a notion that privacy is potentially at risk at the hands of other users but which can be protected by the privacy controls. This section also illuminates clear examples of the legislative type effects that can be designed into technologies where members are either excluded from access or experience undesirable consequences for failing to comply with prompts for information.

Upon completing the Sign Up procedure, I describe the various pages of creating and editing a profile. I critically analyse the prompts for various types of information on the Basic Information page, Personal Information page, Contact Information page, and the Education and Work page. Patterns that emerge within this sub-unit of analysis again include the benefits afforded to users through the sharing of information and promoting the site's privacy settings in order to reinforce the limited notion of privacy. This sub-unit, however, emphasises the elicitation of information that is particularly relevant to consumer profiling, including information relating to residential location of user, socio-economic potential, and consumer preferences.

Following the critical analysis of the Profile Creation and Editing, the findings of the last sub-unit of analysis – the Privacy and Application Settings – are presented. This aspect of this analysis is quite involved and illuminates a number of strategies that illuminate the political bias of the site. Generally, the examination of this sub-unit focuses heavily on the technological functions for protecting privacy. The analysis compares the difference in procedures for protecting privacy from other members and that of protecting information from Facebook Platform Applications, again providing a message that the site is concerned with user privacy, albeit from a narrow perspective. Further, the design again reflects strategies that are confusing, contradictory and vague, impairing the ability to make informed decisions about protecting privacy. It again demonstrates the constraining effects of technology as a form of legislation as members' privacy settings for applications are at times inseparable from that of other members, thus leaving members with an all or nothing decision to make. Finally, several of the Fair

Information Practices were applied to segments of various information sharing practices and the results imply that the practices of information sharing were not designed with the FIPs as a priority.

As seen in this chapter outline, emerging themes are not just a result of a repetition of strategies within a single sub-unit. The patterns overlap amongst the various sub-units, reinforcing their influence on the users' information sharing practices. The key insights generated will be summarized at the conclusion of the chapter illuminating how in spite of genuinely serving sought after benefits for the users, the facilitation of liberal information sharing practices actually privileges the commercial interests of the operators while undermining privacy as a public good.

## Documents

A critically informed analysis of the documents yields much about the ways that the Facebook site is designed to serve the purposes of various actors and desgned to encourage and normalize the sharing of information for various purposes. In order to consider the ways different interests are served by the site I have chosen to analyse three documents that are particularly pertinent to practices of data collection and management: the Facebook Principles/Privacy Policy, the Terms of Use, and the Platform Application Terms of Use. The documents are all readily available even to non-members of Facebook with the Principles/Privacy Policy and the Terms of Use being available from any Facebook page, including the Sign Up pages that precede the creation of an account. The Platform Application Terms of Use is accessible via a link within the general Terms of Use. During the process of creating an account users actually receive notice, albeit in small print, stating: "By clicking Sign Up you are indicating that you have read and agree to the Terms of Use and the Privacy Policy" (Facebook, 2009f). Within this statement the highlighted document names actually serve as links to each respective document. Thus, anyone who is inclined to read the policies has relatively easy access to any of them. In spite of how accessible the documents are. Taking the time to actually read them, however, and more importantly, to read them from a critically informed vantage point is

key to understanding the technology of the Facebook site as a locus of political struggle that serves varied purposes.

Very early within the text of each document is a statement that indicates how users in some way receive a desirable service from Facebook. The Principles/Privacy Policy, for example, begins with the Facebook Principles section which states:

> We built Facebook to make it easy to share information with your friends and people around you. We understand you may not want everyone in the world to have the information you share on Facebook; that is why we give you control of your information. (Facebook, 2009a, Facebook Principles section, ¶ 1)

Social connection is a primary reason that individuals pursue social networking sites (Barnes, 2006; Bumgarner, 2007, Coyle & Vaughn, 2008; Ellison, Steinfield & Lampe, 2007; Raacke & Raacke-Bond, 2008). This opening statement implies that sharing information is of high importance in this social process and that it is Facebook's own purpose to facilitate the process. It makes no mention of how the sharing of information is a lucrative resource in Facebook's targeted marketing business arrangements with third-party advertisers. Further, the control of information users are "given" is promoted as a benefit received from the site and suggests that it is not a right that users inherently possess. Presenting this control as a benefit given by the site also works to pre-empt or counter any concerns that may have otherwise arisen as a result of explanations that appear later in the document relating to how personal information is harvested by the technology and how it is subsequently managed by the site operators.

The statement highlighting the benefits to users is soon followed by Facebook's two core principles. The first reads: "1. You should have control over your personal information" (Facebook, 2009a, Facebook Principles section, ¶ 2). It goes on to explain that Facebook helps users share their information and that they can use the privacy settings to control with which users they will share this information. While it states: "you control the *users* [italics added] with whom you share that information" (Facebook, 2009a, Facebook Principles section, ¶ 2), no mention is made of being granted any opportunity to "control" the access to, or collection of information by the technology of Facebook itself. This omission is significant in that it subtly emphasises a widely held

assumption that privacy online is something that is worth protecting from other individuals in order to avoid risks such as bullying, stalking or identity theft (Hinduja and Patchin, 2008; Livingstone, 2008; Tynes, 2007) as opposed to concerns relating to technological designs that enable large-scale systemic collection, storage, manipulation and distribution of personal information (Chung & Grimes, 2005; Fernback & Papacharissi, 2007; Lyon, 2002; Phillips, 2004; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). Further, by noting that privacy settings will aid in the control of personal information (from other users), the technology of the site is actually promoted as a means to protecting privacy rather than an agent of privacy infringement.

The second core principle states: " 2. You should have access to the information others want to share" (Facebook, 2009a, Facebook Principles section, ¶ 3). Explicitly stating that people want to share information suggests that it is a normal and popular practice. This serves as an endorsement of such information sharing practices. Further, the second core principle goes on to explain that Facebook helps users access the information that others in their life want them to have. This again serves to advance Facebook as the provider of a sought-after benefit where its main purpose is to advance user interests. No mention is made, however, of how the provision of connecting users with the information of others also serves as a lucrative resource in Facebook's own targeted marketing campaigns arranged with other businesses.

Following these Facebook Principles, Facebook's Privacy Policy begins. It commences with an explanation that the policy is designed to help users make informed decisions while interacting with Facebook and that the use of Facebook indicates user acceptance of the policy.

In the very early stages the policy explains that the site is a licensee of the Truste privacy program and a participant of the EU Safe Harbor Privacy Principles. Explicitly stating their participation with the Truste privacy seal program and the Safe Harbour Framework implies a strong message of integrity and respect for personal information. However, while both Truste and the Safe Harbour are designed to underpin a set of standards around practices of managing personal information, they have not gone without

criticism (Lal Bhasin, 2006; Larose & Rifon, 2006; Starke-Meyerring, 2007a; Starke-Meyerring, Burk & Gurak, 2004). For example, there is the concern relating to Truste's possible conflict of interests in providing privacy auditing services to sites that are also sponsors, namely Microsoft (Starke-Meyerring, Burk & Gurak, 2004, See also LaRose & Rifon, 2006), which is also an investor in Facebook (60 Minutes, 2008). And the EU Safe Harbour Privacy Principles relate only to the European citizens; they do not even address the privacy of those outside of the European Union (Starke-Meyerring, 2007a). Further, while these programs are a means of setting standards for businesses with respect to management of personal information, the commercial motivations that are at the core of both should not be overlooked. The Safe Harbour Principles are the result of the US wanting to expand business into European markets, which otherwise have far more stringent data protection rules (Starke-Meyerring, 2007a; Starke-Meyerring, Burk & Gurak, 2004). And Truste's homepage slogans clearly reveal the underlying commercial motives in statements such as: "Protect privacy and build the trust of *customers* [italics added] to work, play, and shop online" and "Customer trust is essential to online business. Make us your privacy partner" (Truste, 2009). Thus, the appeasing effect of such explicitly profiled affiliations seems actually quite advantageous to Facebook's commercial interests.

Immediately following this section outlining Facebook's participation with Truste and Safe Harbour Privacy Principles, the document begins to reveal how information is managed by Facebook. The section titled "The Information We Collect" reveals that information collected includes, but is not limited to, collection of the information that is contained within the personal profile users set up, messages sent, any searches conducted, the groups and events that users might set up, applications that are added, and information transmitted through various channels (Facebook, 2009a, The Information We Collect section, ¶ 4). The rationale for collecting such information is provided as a means of delivering a "personalized" service. "In most cases, [Facebook will] retain it so that … you can return to view prior messages you have sent or easily see your friend list" (Facebook, 2009a, The Information We Collect section, ¶ 4). Within the same document, but in a later section titled "Use of Information Obtained by Facebook", light is again shed on how personal information is used by Facebook and its operators to apparently

benefit the user. It explains that information from user profiles might be used for "…personalizing advertising and promotions so that we can provide you Facebook" (Facebook, 2009a, Use of Information... section, ¶ 6).

Given the commercial value of personal information that is easily collected, stored, and manipulated in digital environments (Chung & Grimes, 2005; Lyon, 2002; Phillips, 2004; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007), it is interesting that the rationale for Facebook's collection of personal information is couched in terms that emphasise the benefits to users. While the free disclosure of personal information may very well allow them to provide a personalized service and personalize the advertising on pages, what goes unstated is how it can also increase the efficiency of targeted marketing and drum up revenue for Facebook in doing so. According to Facebook executives, as a business enterprise, Facebook not only relies heavily on revenue generated through advertising, it is their major source of revenue (BusinessWeek Online, 2009).

It may not be a huge concern to some members to receive pesky targeted advertising. What should be kept in mind, however, is that targeted advertising is only one commercial use of personal information. While Facebook executives state that this is one, if not the primary, source of revenue for Facebook, and the Principles/Privacy Policy reaffirm Facebook's use of information for such purposes, other popular uses of such data should be kept in mind. The design functions that enable targeted marketing are the same functions that afford the collection, storage and distribution of personal information for sale to data brokers. Thus, the awareness that such stores of information could potentially influence future employment opportunities, insurance coverage or credit access (Fernback & Papacharissi, 2007; Lyon, 2002; Phillips, 2004; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007) should render these information sharing design capabilities a bit more disconcerting.

The section of the Principles/Privacy Policy titled, "Sharing Your Information with Third Parties", begins by explaining that Facebook "is about sharing information with others…while providing you with privacy settings that restrict other users from

accessing your information" (Facebook, 2009a, Sharing Your Information... section, ¶ 1). Thus, the site's provision to enable users to manage their privacy (from other users) again implies a definition of privacy as protection of information from other users and reassuringly suggests that the technology of the site helps users manage the risks. The convenient juxtaposition of this message once again likely has a dampening effect on any potential concerns that might arise as a result of the ensuing catalogue of examples that outlines under what circumstances Facebook might share information with third parties.

Although the list of examples in which information might be shared is quite lengthy, it is not presented as comprehensive and therefore there very well may be other circumstances in which information might be shared with third parties. One specific example from the list relates to the availability of personal information to third party applications and application developers. The document states: "If you, your friends, or members of your network use any third-party applications … those Platform Application may access and share certain information about you with others in accordance with your privacy settings" (Facebook, 2009a, Sharing Your Information...section, ¶ 5 ). It goes on to state that "you may opt-out of any sharing of certain or all information through Platform Applications on the Privacy Settings page" (Facebook, 2009a, Sharing Your Information...section, ¶ 5) but it isn't quite clear if users can opt-out of Facebook sharing their personal information with the application or if they can only opt out of the application *sharing* their information with other users.

It is also interesting that the option is to opt-out rather than to opt-in as undoubtedly this difference in design would bear a significant difference in outcomes. As an opt-out setting, it is likely that many do not go through the trouble of changing these settings and thus information is shared as default. However, if the option were to opt-in the information of those who paid no attention and did not go through the trouble of altering the settings would be protected by default. Further, it is unlikely that many would consciously go through the trouble to opt-in to a practice that would extend the ways that their information might be shared if their information was restricted in the first place. If applications' access to information is indeed addressed by these settings, then such a

reversal in the opt-out/opt-in design would have significant implications for them as they would likely have access to the information of significantly fewer users.

However, as stated above, it is difficult to ascertain from the document whether or not these settings relate to information accessible to applications. This in itself is a concern as it presents somewhat of a self-contradiction in that the Privacy Policy, as noted earlier, states that it is designed to help users make informed decisions (Facebook, 2009a). Clarity in the matter would be very helpful given that what follows might prompt critical users to want to opt-out of their information being shared with applications. The document goes on to explain how although Facebook has "undertaken contractual and technical steps to restrict possible misuse of such information" (Facebook, 2009a, Sharing Your Information...section, ¶ 5), they are not in a position to guarantee compliance and do not "screen or approve Platform Developers and cannot control how such platform Developers use any personal information" (Facebook, 2009a, Sharing Your Information...section, ¶ 5). Thus, the Facebook operators are essentially advising that they absolve themselves of any responsibility for the consequences that might ensue from the sharing of user information with application developers if such developers misuse the personal data of members.

Interestingly, a very similar caveat appears in other Facebook documents but in slightly varying contexts. For example, the introductory section of the Platform Application Terms of Use frankly states that the document contains the "terms and conditions … applicable to your installation and use of certain applications which use the Facebook Platform … to access certain information about you that is available from the www.facebook.com website" (Facebook, 2008, Introduction, ¶ 1 ). The next paragraph rationalizes the sharing of user information with platform applications as a means of informing the creation of new applications that will enrich members' social interactions. Thus, through the documents the site again seems to be promoting the benefits of sharing information for the sake of the main reason many seek out social networking sites in the first place: to interact with others. While it explicitly states in bold lettering that it does not share contact information such as email and street addresses, phone numbers, personal websites, and so on, with application developers, the section immediately

following provides a bit more detail with respect to what information *may* be accessible to the developers. The list includes, but is not limited to, user name, sex, date of birth, almost all profile information (except for religious views and contact information), messages sent and received, list of Facebook friends, any photos posted, and information about events related to an account. The document explains, however, that while developers must enter into an agreement that "strictly limits their collection, storage and use of Facebook Site Information …Facebook cannot guarantee that each Developer will comply with its contractual requirements and Facebook does not assume any liability or responsibility for any Developer's actions" (Facebook, 2008, Consent Regarding Use... section, ¶ d).

Given that there are "more than one million application developers ... from more than 180 countries [and] more than 350 thousand active applications on Facebook" (Facebook, 2009e, Platform section, ¶ 1), coupled with the multi- dollar industry surrounding the sale and brokerage of personal information (Starke-Meyerring & Gurak, 2007), there is a good chance that some of the developers may not abide by the agreements of what and how information should be collected, stored, and used.

The following section in the same document compounds these concerns further as it stresses that the developer applications have not been "approved, endorsed, or reviewed in any manner" (Facebook, 2008, Use of Platform Applications section, ¶ a) and that Facebook is not responsible for the privacy practices of such developers. Using upper case text, the document emphatically warns users that they use such applications at their own risk. This is followed later in the section with a disclaimer that is again in upper case text reading:

> YOU HEREBY IRREVOCABLY RELEASE AND AGREE TO HOLD HARMLESS FACEBOOK AND ITS AFFILIATES… FROM ANY AND ALL CLAIMS, COSTS, LOSSES, LIABILITIES, AND DAMAGES… ARISING OUT OF: (A) YOUR…USE OF ANY…APPLICATIONS, (B) DEVLIVERY OF ANY INFORMATION BY FACEBOOK TO ANY DEVELOPER; OR (C) ANY USE BY ANY DEVELOPER OF ANY INFORMATION, WHETHER OR NOT SUCH USE IS IN ACCORDANCE WITH THE DEVELOPER AGREEMENT. (Facebook, 2008, Use of Platform Applications section, ¶ g)

The general Terms of Use for the site also contains a similar caveat rejecting any responsibility for how information might be used or for the privacy practices of applications. It also states that applications "have not been approved, endorsed or reviewed in any manner" (Facebook, 2009g, Facebook Platform Applications section, ¶ 3) and that users use applications "AT [THEIR] OWN RISK" (Facebook, 2009g, Facebook Platform Applications section, ¶ 3).

Further, the Terms of Use contains a paragraph that grants Facebook a significant amount of freedom with respect to the use of member information. The paragraph reads:

> When you post User Content to the Site, you authorize and direct us to make such copies thereof as we deem necessary in order to facilitate the posting and storage of the User Content on the Site. By posting User Content to any part of the Site, you automatically grant… to the Company an irrevocable, perpetual, non-exclusive, transferable, fully paid, worldwide license (with the right to sublicense) to use, copy, publicly perform, publicly display, reformat, translate, excerpt (in whole or in part) and distribute such User Content for any purpose, commercial, advertising, or otherwise, on or in connection with the Site or the promotion thereof, to prepare derivative works of, or incorporate into other works, such User Content, and to grant and authorize sublicenses of the foregoing. You may remove your User Content from the Site at any time. If you choose to remove your User Content, the license granted above will automatically expire, however you acknowledge that the Company may retain archived copies of your User Content. Facebook does not assert any ownership over your User Content; rather, …you retain full ownership of all of your User Content and any intellectual property rights or other proprietary rights associated with your User Content. (Facebook, 2009g, User Content... section, ¶ 2)

With User Content being described earlier in the section as "photos, profiles (including your name, image, and likeness), messages, notes, text, information, music, video, advertisements, listings, and other content that you … post" (Facebook, 2009g, User Content... section, ¶ 1), it is apparent that the operators of the site have granted themselves much liberty with respect to their use, storage, and distribution of almost any information users post. The paragraph, however, is written in somewhat legalese terminology that seems to again obfuscate *exactly* what they are allowed to do with personal information. The typical lay users are likely unable to decipher what a "transferable, fully paid, worldwide licence" means with respect to the use of their information. Further, "to use, ... distribute ... for any purpose, commercial, advertising, or

otherwise" is incredibly vague, but should at the very least, raise questions regarding to what purposes their personal information might be applied. And although the final statement allows users to "retain full ownership of ... User Content", it again presents somewhat of a contradiction as there is little meaning left to the ownership of User Content or personal information if Facebook has virtually unfettered use of it.

This passage draws a significant contrast with the "control" of information that Facebook claims to have given users in the first paragraphs of the Principles/Privacy Policy, which allows users to limit their information from other users. This underscores how the narrow and selective definition of privacy within the site is focused on limiting, protecting, or controlling information from other users as opposed to concerns relating to systemic collection, manipulation, and distribution of information through technologically designed functionalities. According to critical theory of technology, technologies are political designs and privilege the interests of some over others (Feenberg, 2002, 2004a, 2004b; Longford, 2005; Winner, 1986). Thus, the documents examined here seem to support the commercial purposes of the site operators as they are privileged not only through the freedom they have granted themselves to use and manage personal information, but also through messages that divert concerns of privacy risks toward other users and away from the design. This diversion tactic likely tempers resistance to the free disclosure and communicative exchanges of information, which is a key ingredient of an important source of revenue for Facebook: targeted marketing. Given that the applications also seem to have been granted relatively liberal access to user information, and given that there are over 350,000 of them and none are vetted by Facebook, the possibilities of what might become of personal information are vast and should be perceived as worrisome indeed.

## Sign Up Procedure

This section involves an analysis of my experience of signing up to become a Facebook member. At the time I signed up there was more than one page available at Facebook from which I could do so. Given that privacy and the management of information are at the core of my research concern, I chose the one that requested the

least information. This page was found at http://www.facebook.com/r.php. I created a record of my participation in the sign up procedure by saving screenshots. I did this for two reasons. First, I wanted to have a fixed record that I could revisit for analysis in the event that the Sign Up procedure underwent changes during the course of this project. Secondly, prior to officially commencing my data collection, I had signed up with Facebook under a pseudonym to familiarize myself with the site. I learned that after working through the sign up procedure, it appeared to become inaccessible and impossible to backtrack to these initial pages. Therefore, when it came time to start collecting my data, I created series of screen shots to record the procedure of signing up.

Right from the early moments of signing up to become a member, the benefits of what Facebook has to offer its users are clearly stated. In some instances, as early as the first Sign Up page, users receive an implied promise that Facebook will provide opportunities to express one's identity and interact with others. For example, the Sign Up page that I used to create an account for my research purposes reads: "Join Facebook to **connect with friends, share photos** and **create your own profile**" (See Figure 4.1). Similar messages appear repeatedly throughout various screens of the Sign Up process as well as within the verification email that each prospective member receives at the email address that they provide on the Sign Up page. Given that social interaction and identity expression are two of the main purposes social networking sites serve for users (Barnes, 2006; Bumgarner, 2007, boyd, 2008; Coyle & Vaughn, 2008; Ellison, Steinfield & Lampe, 2007; Hinduja and Patchin, 2008; Livingstone, 2008; Raacke & Raacke-Bond, 2008; Subrahmanyam & Greenfield, 2008; Tynes, 2007), statements that advance these purposes likely validate users' intention to join and act to allay any resistance that might result from the immediate appeal for personal information as part of the registration process.

From the very first Sign Up page of the registration process, regardless of the one with which users choose to sign up, they are asked, at the very least, for a name, date of birth, an email address and their sex (See Figure 4.1). With respect to the date of birth, the Sign Up page with which I registered provided a link to answer an anticipated

question that might be posed by potential users: “Why do I need to provide this?”. Clicking on the link opens a box that explains that “Facebook requires all users to

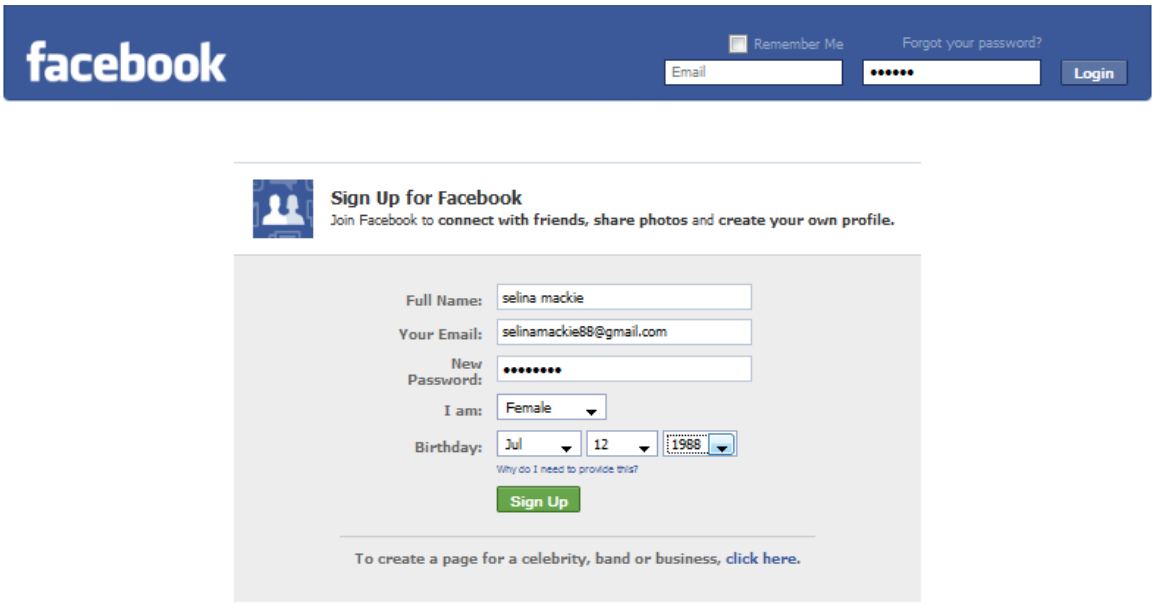


*Figure 4.1.* Sign Up Page. Adapted from Sign up. (2009). Retrieved March 16, 2009 from http://www.facebook.com/r.php. Copyright 2009 by Facebook.

provide their real date of birth as both a safety precaution and as a means of preserving the integrity of the site. You will be able to hide this information from your profile if you wish” (See Figure 4.2).

While safety is promoted as the rationale for requesting this information, what should not be overlooked is the importance of accurate customer information to the efficacy of targeted marketing campaigns. Further, linking the safety and integrity of the site to information that would contribute to the accurate identification of users implies that potential risks rest within this group. This suggestion is reinforced by the assurance that users will be able to conceal the visibility of their date of birth from their profile. Here the implied message is that users can manage risks by concealing their personal information from other Facebook users. Highlighting the risks that might rest within the membership subtly diverts any concern of the technology being viewed as a risk through the standard collection of personal information. Further, receipt of notification that

sensitive information can be hidden from others actually promotes the technology as the means to reducing risk rather than posing it.

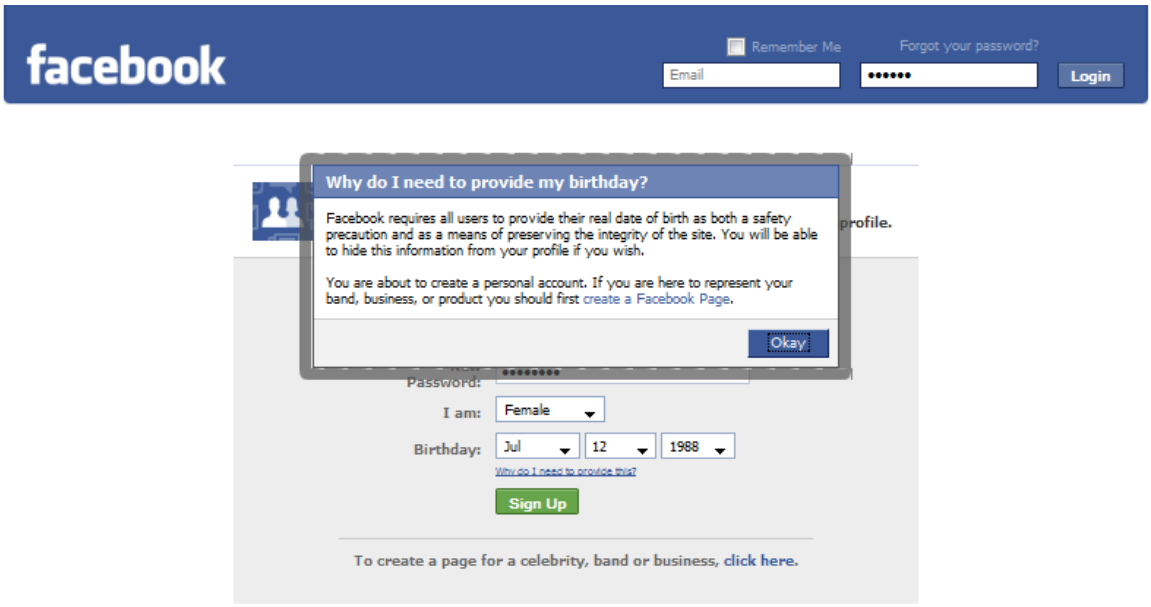


*Figure 4.2.* Sign up page - date of birth required. Adapted from Sign up. (2009). Retrieved March 16, 2009 from http://www.facebook.com/r.php. Copyright 2009 by Facebook.

There is no such message to assuage users for having to provide their email address or their sex during their Sign Up process. However, each of these bits of personal information is required by the site; the Sign Up procedure will simply not advance without such information. For each field that is not filled in, users receive a message after clicking the Sign Up button either specifically prompting them to add the missing information (See Figure 4.3) or a more general message indicating that all fields must be filled in. According to critical theory of technology , such constraining consequences for noncompliance are classic examples of the legislative type of effects imposed by technological designs (Lessig, 2006; Longford, 2005, Feenberg, 2002, 2008), where those who refuse to submit to the demands of the technological design are excluded from certain privileges as a result.

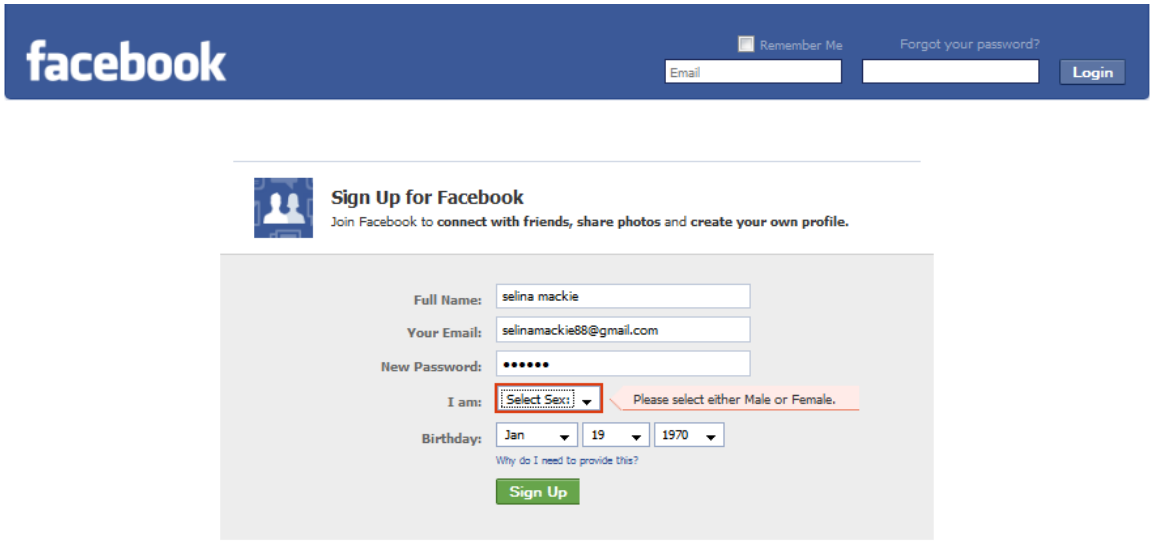


*Figure 4.3.* Sign Up Information Required. Adapted from Sign up. (2009). Retrieved March 16, 2009 from http://www.facebook.com/r.php. Copyright 2009 by Facebook.

For those who want to resist the site's elicitation for personal information, but do not want to be excluded from becoming a member, there is the option of presenting fictitious information. The Facebook technology, however, has been designed to anticipate this, in part at least, and has actually implemented the technological process of confirming the validity of the visitor's email address before granting membership. The process stifles any attempts to sign up with someone else's email account (or a bogus email account) as users must visit the specific email account that they provide to Facebook in the sign up procedure. Within that account will be an email sent by Facebook which links the user back to Facebook as a newly full fledged member. This process enforces complicity with their Terms of Use that stipulates that users must not create a Facebook account on behalf of someone else (Facebook, 2009g). This technologically designed gatekeeping is another example of the legislative effects described in critical theory of technology in that it effectively restricts any potential users from accessing the site if they do not comply with the site's requests or demands for accurate information (Lessig, 2006; Longford, 2005, Feenberg, 2002, 2008).

Users who do comply with the site's request for a valid email address can click the link in the email they receive from Facebook and will arrive at the first step of a three-step process. This page not only offers to assist users in making connections, it actively encourages it. As seen in Figure 4.4, a standard message reiterates the convenience of using Facebook to connect with "friends, family and coworkers". This again reflects the repeating attempts to tap into users' interest in connecting with others. The page promotes a technological design function of the site that will commence this process via the user's email account. What is little short of astonishing, however, is that it requires users to surrender the password to their email account. Not only are users' email accounts completely separate and unconnected with the users' Facebook accounts, the passwords to the email accounts are likely considered very private information and would very rarely, if ever, be shared under any other circumstances.

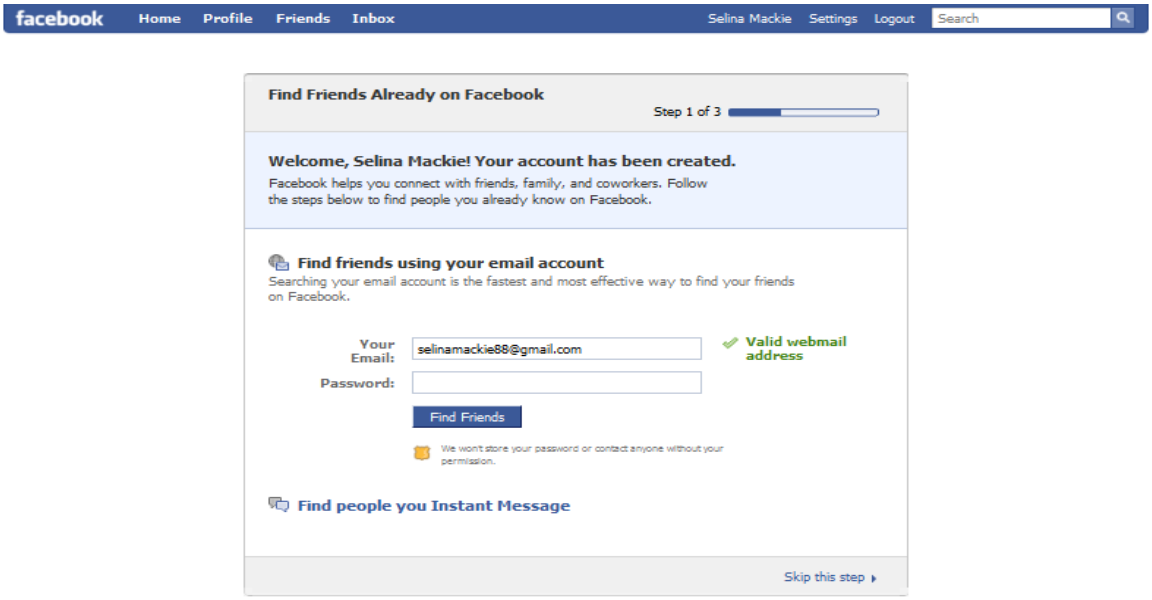


*Figure 4.4.* Step 1 of three-step process to get started and connect with others. Adapted from Getting started. (2009). Retrieved January 27, 2009 from http://www.facebook.com/getting started.php?. Copyright 2009 by Facebook.

This request for the email account password is rationalized in the Getting Started Guide[3] which is a series of pages that is offered through a link in the very early pages of

[3] The Getting Started Guide is also accessible from the "Help" link that is included in the menu items that run along the bottom of virtually any Facebook page, including the page found at www.facebook.com/. Visitors do not necessarily need to be members, nor do they need to login in order to access the guide.

the Sign Up procedure for any prospective members who may have questions about the process (Facebook, 2009b). It is also available from virtually any Facebook page. The Find Your Friends page of the guide first explains that "most of Facebook's features depend on the idea that there are people in your life that you like to stay in touch with, keep up with, and generally connect with" (Facebook, 2009b, Make Facebook Useful... section, ¶ 1) and therefore, as the site explains, there are simple ways that this can be accomplished. Users' email address and password are requested so that "Facebook [can run] a check of the emails in your address book to see if any of the addresses match people who currently have profiles on Facebook" (Facebook, 2009b, Friend Finder section, ¶ 1). The results of this "check", as the guide explains, will provide users with the opportunity to extend friend requests to those in their contact list who are already on Facebook and send invites to those in their contact list who are not already on Facebook. In other words, Facebook frames their request for what would presumably be deemed very private information by most users (i.e. an email account password) in terms that justify it on the basis of assisting users to fulfil what could reasonably be expected to be a primary purpose for joining the site in the first place: to establish their connections.

Those who deem the password to their email account too private to surrender are not bound to providing the information. They can "Skip this step" (See Figure 4.4) and move on to Step 2 of the three-step process. Step 2 repeats the promotion of how providing information will assist in establishing connections. In this case, it is the disclosure of very preliminary profile information relating to education and employment that will assist users in facilitating connections (See Figure 4.5). Information relating to users' level of education, what college they attended, and the company they work for might very well assist in establishing current offline, as well as long lost connections. However, such information could also be quite informative with respect to income levels and product preferences. Digital technologies are now capable of collecting and manipulating such information in order to create detailed consumer profile types that inform and increase the effectiveness of advertising and product development (Chung & Grimes, 2005; Phillips, 2004). As a business, advertising is a significant source of revenue for Facebook (Campaign, 2009; BusinessWeek Online, 2009). Thus, while information relating to a person's education and employment would be useful in making

friend connections with classmates and colleagues, collection of such information from millions of users also proves quite lucrative to Facebook's generation of advertising dollars. According to critical theory of technology, this is an example of the technology serving varied purposes with disparate outcomes (Feenberg, 2002; Winner, 1986); the technological design that facilitates social connections for users through information relating to education and employment also serves the commercial interests of Facebook operators by informing targeted advertising.

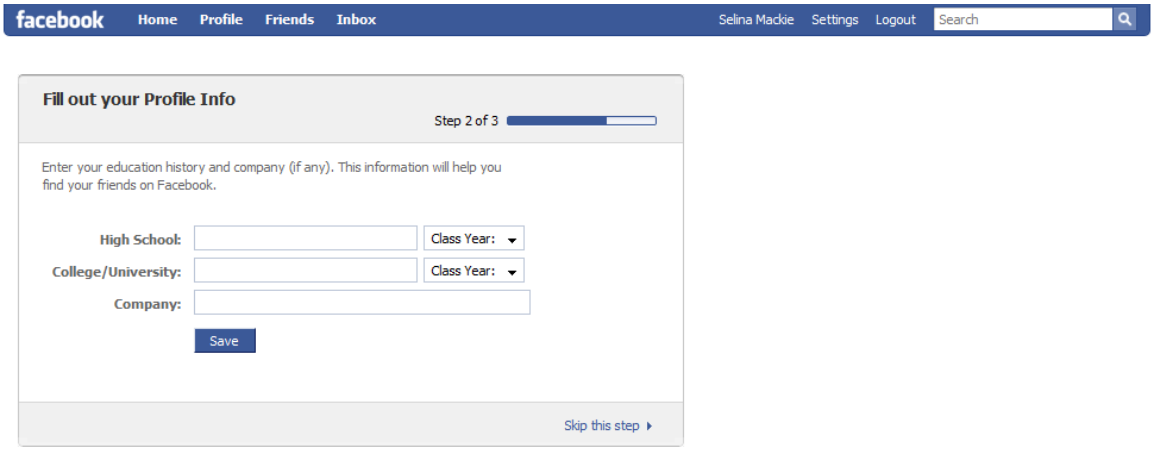


*Figure 4.5.* Step 2 of three-step process to get started. Adapted from Classmates and coworkers. (2009). Retrieved January 27, 2009 from http://www.facebook.com/gettingstarted.php?step=classmates_coworkers. Copyright 2009 by Facebook.

As in Step 1, however, users are not required to enter any information about their education or employment histories and can completely bypass Step 2 and move on to Step 3. In Step 3 it is by entering their city that users will be given options to join a network. The page states that "once you join a network you will be able to see the profiles of other people in the selected network, and they will be able to see yours. You can change your privacy settings on the privacy page" (See Figure 4.6). This reassurance of how users are afforded the opportunity to determine who will, and who will not, be able to see their information appears to be intended to increase complicity with this elicitation of personal information. This again suggests a narrow definition of privacy where risks are managed by protecting information from other users and an omission of how the a users locality can be relevant to the targeted marketing of local business. As

with the first two steps, however, users can completely abstain from entering anything. And whether or not they choose to, they will move on to the Facebook Homepage where they will arrive thereafter upon logging in.

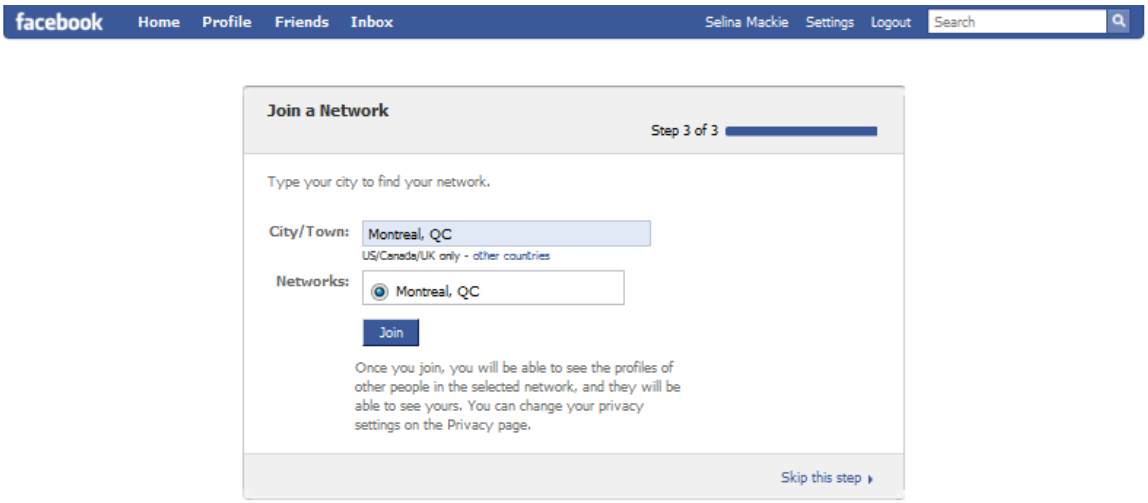


*Figure 4.6.* Notification of privacy settings option. Adapted from Join a network. (2009). Retrieved January 27, 2009 from http://www.facebook.com/gettingstarted.php?step=join_networks. Copyright 2009 by Facebook.

## Profile Creation and Editing

The Home page, at which one arrives upon completing the Sign Up procedure, serves as a directory to the other main aspects of site, including one's profile and the pages to edit it. It is through the series of profile editing pages that a member, according to the section of the Getting Started Guide titled, Set Up a Profile (Facebook, 2009c), can apparently express oneself. The profile editing pages are categorised according to Basic Information, Personal Information, Contact Information, and Education and Work. These categories generally provide a series of text boxes, tick boxes and drop down menus that allow users to provide rather brief but specific snippets of information about themselves.

These pages do indeed allow users to share certain aspects about themselves with others (depending on who they allow access). But rather than having free reign of self expression, members are prompted by the technological design to surrender very specific

information. In several instances, the site seems to be designed to elicit simple close-ended and specific categorical information rather than encouraging genuinely, self-generated, expressive information from the member. For example, the Basic Information page prompts users to provide information that includes but is not limited to their relationship status, religious views and political views. With respect to the relationship status and religious views, users have the option of a combination of selections from a drop down menu, tick boxes and text boxes. With respect to the political views, users are prompted to "Type the name of a political party", which implies there is a very specific way to respond within the box. In essence, the design of the site sets an implied standard of what information might be useful or interesting to others. In doing so it serves more as a description rather than a forum to "express yourself" or an opportunity to reflect "anything else you want to tell [] about yourself", as is explicitly stated in the Getting Started guide (Facebook 2009c, Express Yourself section, ¶ 1).

That being said, once users arrive at the Personal Information page the information elicited is at least somewhat more personal. It includes a range of prompts to fill in various personal favourites such as books, movies, music and so on. The design of the response boxes have enough space that users can actually add some commentary if they so choose rather than being limited to just listing the title of a movie or band. The nature of the prompts on the page, however, does bear a somewhat suspect resemblance to that of a market survey. The final box titled "About Me" is probably the best opportunity to provide a self-generated, open-ended response but even this response is prompted by the site and there doesn't appear to be any opportunity on the page to create one's own categories.

As stated above, this Personal Information section reveals more about how users wish to represent themselves than simple factual based descriptions such as the information sought in the Basic Information page because it reflects personal preferences. For anyone who is particularly interested in the identity exploration and development affordances of online social networking, which is one of the primary reasons youth pursue such digital spaces (boyd, 2008; Hinduja and Patchin, 2008; Livingstone, 2008; Subrahmanyam & Greenfield, 2008; Tynes, 2007), this aspect of one's profile might be

appreciated. A list of personal preferences and leisure pursuits, however, provides a wealth of valuable consumer information that would undoubtedly bear lucrative commercial value to marketers. It feeds directly into the target marketing "based on people's interests" that Facebook's UK sales director, Stephen Haines describes as such an important aspect of Facebook's revenue (Campaign, 2009, ¶ 1).

At first glance, the Contact Information page might seem less relevant to marketers in that the information it generates is not as revealing as the Personal Information page, which elicits information directly related to preferences and consumer activity. Telephone numbers and addresses, however, are also revealing with respect users' location which can inform advertising for local business. Further, the specific street address and zip (postal) code can also provide general indications with respect to income or socio-economic status, thus further informing what sort of consumer type towards whom to target advertising. However, given that the information reveals where and how one could be contacted, including addresses, cell phone and landline phone numbers, it is a prime example of the information members are typically wary of recklessly sharing. As such, the site again appears to have been designed to assuage such concerns. Each bit of information that users are prompted to impart is adorned with a padlock icon that when clicked, provides users with an instantaneous opportunity to edit their privacy setting rather than having to navigate to the Settings pages to manage the visibility of this information in their profile. Again, this implied notion of privacy focuses on the risks of exposing personal details to ill intended users. This subtly averts attention from a notion of privacy infringement that includes technological affordances designed to harvest and manipulate large stores of personal information. A focus on risks potentially imposed by individuals plays into the hands of the parties that benefit commercially from the free flow of information resulting from a vast membership who feel confident that using the settings offered by the site will assure their privacy. Thus, the pad lock icons and links to the privacy settings page likely instigate the undaunted (albeit perhaps misguided) disclosure of contact information to the advantage of the site operators and those with whom they enter into targeted advertising business arrangements.

The final page of the Profile creation process, titled Education and Work, also has potential commercial value. As indicated earlier, the initial prompt for information relating to users' education and employment begins in Step 2 of the Sign Up procedure, and is promoted as being helpful in finding friends on Facebook (See Figure, 4.4). Any information users enter at that stage is automatically transferred to the users' Profile. The information elicited in the Education and Work section of the profile editing pages, however, actually involves significantly more detail than what is educed during the sign up procedure. In the Profile pages, the site seeks information such as what universities users might have attended, what year, what degree, whether post graduate level studies were pursued and what concentration users specialized in. It also elicits information relating to job history including what companies users may have worked with, when, and the positions held. It is again suggestive with respect to a member's income potential and therefore serves the commercial purposes of the site operators for the same reasons as outlined above; it informs highly targeted marketing through consumer profiling.

**Privacy and Application Settings**

The Privacy pages are accessible from the drop down Settings menu that is visible in the blue menu bar that runs across virtually all Facebook pages once a member is logged in (See Figure 4.7). They consist of a series of pages that users can access in order to customize their preferred degree of information sharing with other users. The Privacy settings page even has an option to completely "block" certain individuals so that "they will not be able to find you in a Facebook search, see your profile, or interact with you through Facebook…" (Figure 4.7, see Block People). This section of the analysis will focus on the Privacy Profile pages where, according to the Facebook site, users can "control who can see [their] profile" (Figure 4.7, see Profile), and the Privacy Applications pages where users can "control what information is available to applications [used] on Facebook" (Figure 4.7, see Applications). As will be shown, however, there is an apparent difference between controlling the information accessible to other users and the process of controlling the information accessible to the technology of applications.

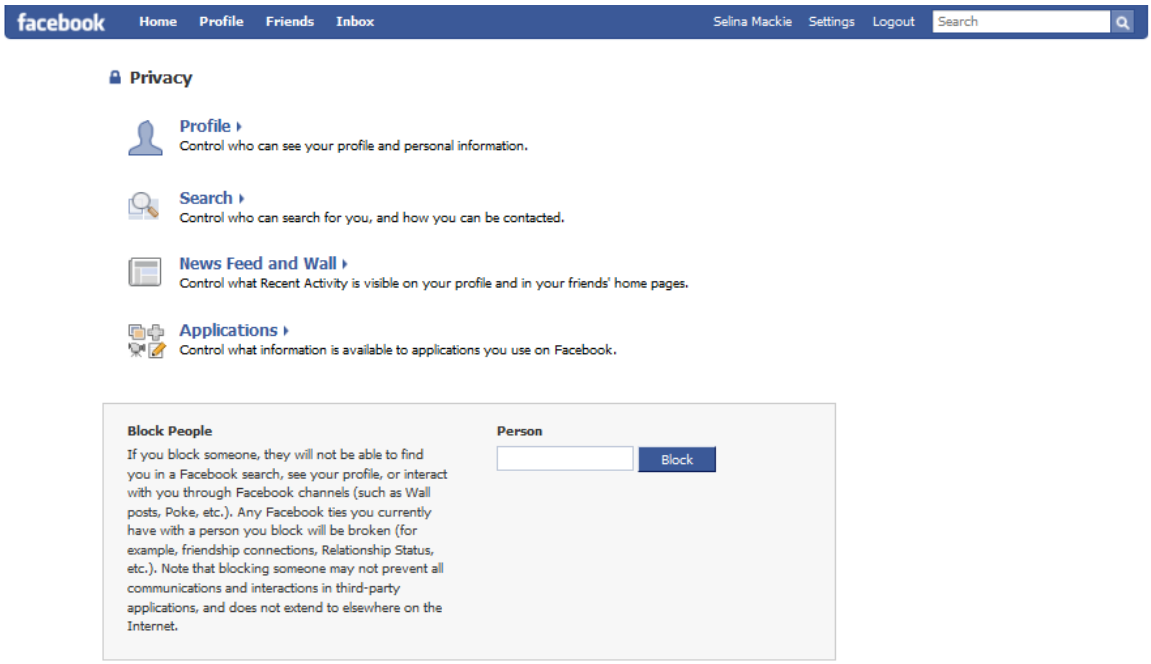


*Figure 4.7.* Privacy settings options available through privacy settings. Adapted from Privacy. (2009). Retrieved April 17, 2009 from http://www.facebook.com/editaccount.php?networks#/privacy/?ref=mb. Copyright 2009 by Facebook.

Clicking on the Profile link of the settings Privacy page (Figure 4.7) brings users directly to the Privacy Profile settings page (Figure 4.8). This Privacy Profile settings page allows users to control who sees the information that has been entered in the creation of their Profile as well as control who can see some of the activities related to their account. Figure 4.8 provides an example of the options within the "Basic" Profile tab on the Privacy settings page; these options are repeated within the "Contact Information" tab. Clicking each of the "[?]" symbols explains to users what information that particular setting function will control. Clicking the drop-down menu gives users a range of options regarding what level of sharing they would like to effect in relation to specific categories of their information. As seen in Figure 4.8, the options available include: everyone, networks and friends, friends of friends, only friends, and customize. The customize option allows for the exclusion of specifically named individuals and/or for specifying which networks will be granted access to the user's information. The page even provides an option to enter someone's name in order to see how that friend would

be able to see the user's information. This varied range of options and combinations that allow a user to customise their preferred level of control is what Facebook refers to as "granularity".

This granularity of the Privacy Profile settings provides users a wide degree of options and combinations to control who will have access to which personal information. The intricate and nuanced design of these settings and the relative convenience with which they are accessible imply that user privacy is highly valued. The fact that these settings only control accessibility of information in relation to other users, however, suggests another example of the narrow definition of privacy adopted and advanced by Facebook. As will be shown, the accessibility, granularity, and convenience are not quite so apparent with respect to the settings that are purported to allow users to "control what information is available to applications used on Facebook" (Figure 4.7)

The Applications link that states it allows one to "Control what information is available to applications you use on Facebook" is available from the Privacy page (see Figure 4.7). This statement implies a different perspective of privacy from that of restricting access to other users. Restricting the visibility of information from other users suggests that while some people might be interested in seeing your information to get to know you, others might have less benign intentions. Thus, from such a perspective, responsible use of digital spaces involves users using the controls to make decisions about with whom they will share details about themselves. However, allowing users to limit their information from being accessible by Applications suggests an acknowledgement of such information being available for more than the purpose of enhancing the social connections enabled by the site. Therefore, such an affordance seems to indicate an acknowledgement on the part of the site that there is at least some level of awareness or concern amongst users regarding the electronic harvesting or storage of information in digital spaces.

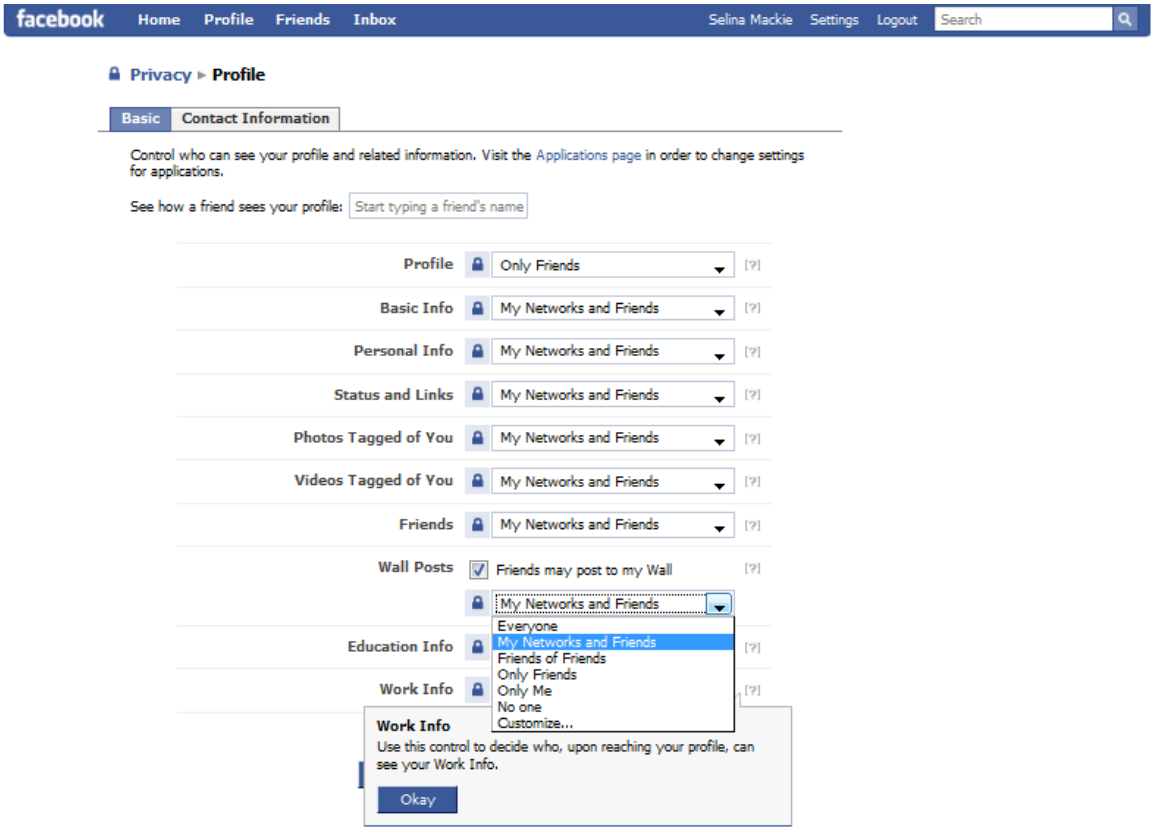


*Figure 4.8.* Profile privacy editing. Adapted from Profile. (2009). Retrieved April 17, 2009 from http://www.facebook.com/home.php?#/privacy/?view=profile. Copyright 2009 by Facebook.

The Applications link on the Privacy page (see Figure 4.7) suggests that it might serve as the site's attempt to address such concerns. Unlike the Privacy Profile link, however, which brings users to a page of Privacy Profile settings, the Privacy Applications link brings users to a page of text that explains "How Applications Interact With Your Information" (see Figure 4.9).

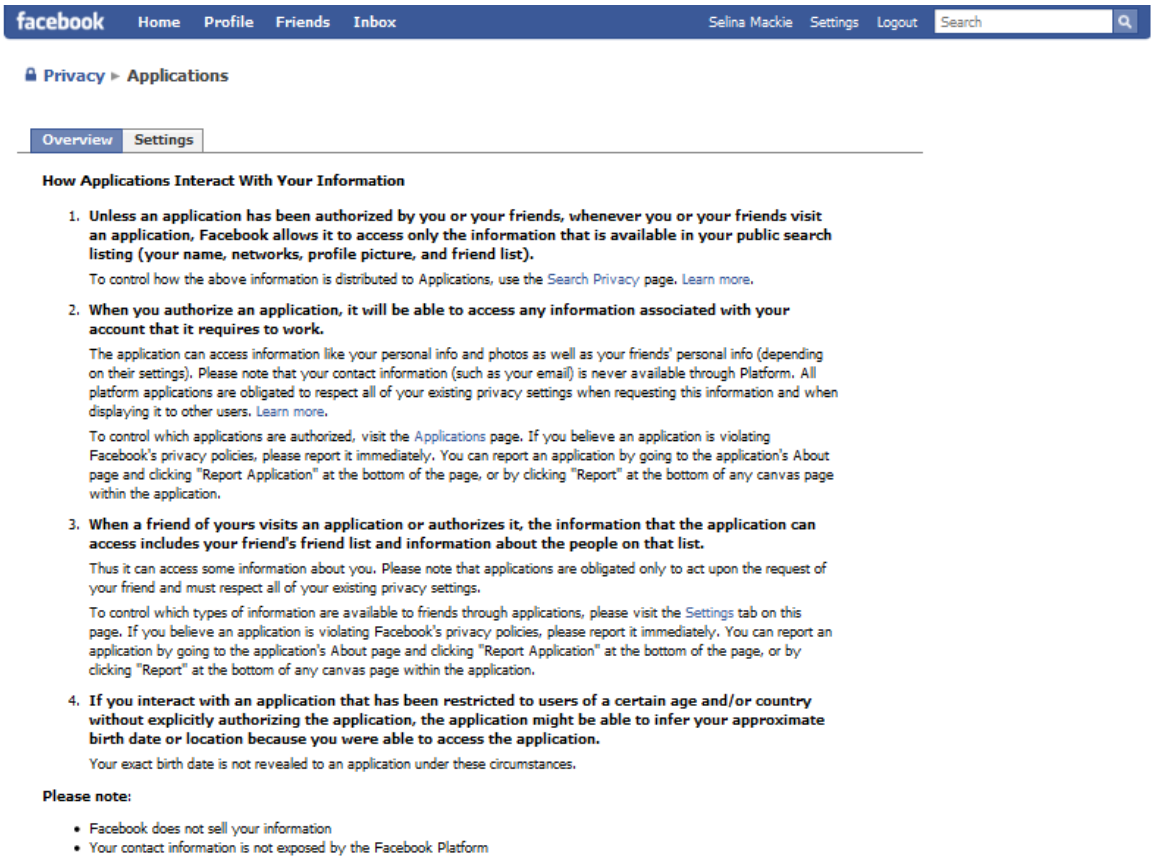


*Figure 4.9.* Page from applications link on the privacy settings page. Adapted from Applications overview. (2009). Retrieved April 17, 2009 from http://www.facebook.com/home.php?#/privacy/?view=platform. Copyright 2009 by Facebook.

> Note that the first point explains:
>
> Unless an application has been authorized by you or your friends, whenever you or your friends visit an application, Facebook allows it to access only the information that is available in your public search listing (your name, networks, profile picture and friend list). (Figure 4.9, ¶ 1)

The sentence just below this first point provides a link to the Search Privacy page which apparently should allow users to control how the information is shared with applications. The Search Privacy page, however, provides general restrictions about who among Facebook's members will be able to see users' information and what information about them can be seen; it does not have an option to specifically restrict information from applications. As a matter of fact, applications are not mentioned anywhere on the page.

A reasonable conclusion that might be drawn with respect to this lack of granularity is that perhaps in order to use the Search Privacy settings to limit the information accessible to applications, users must restrict the information from anyone who might otherwise see them in a search. However, if the sharing of information is the means to establishing connections - as the site repeatedly states - then restricting the applications through the Search Privacy settings means hampering the connections with others who might be looking for users. In other words, by limiting the application from accessing personal information, users also limit one of the means that others can use to establish contact with them. Therefore, there is a somewhat undesirable consequence to the lack of granularity in the settings. Limiting access of information to applications means limiting it to friends which means possibly impeding the facilitation of the connections for which users are joining the site in the first place. According to critical theory of technology, the disciplining effect on users who opt to follow through with this first point of the Privacy Applications page (See Figure 4.9) by restricting their public search information from applications, serves as another example of the legislative type effects that can be designed into technologies (Lessig, 2006; Longford, 2005, Feenberg, 2002, 2008). Further, while the assumption that the restriction of information to applications is tied to the restriction of information to other users appears to be the most likely practical conclusion to draw, the lack of clarity in outlining exactly whether or not users will effectively restrict information from applications by restricting access to other users should raise concern in and of itself.

The second point of this Privacy Applications page raises similar concerns with respect to confusing information that would impede users' ability to make informed decisions about their information. For example, this second paragraph of the overview states: "When you authorize an application, it will be able to access any information associated with your account that it requires to work" (Figure 4.9, section 2, ¶ 1). It continues on to state, "The application can access information like your personal info and photos as well as your friends' personal info (depending on their settings)" (Figure 4.9, section 2, ¶ 2). A version of this message also appears in the process of actually adding an Application where a box appears that states that by allowing the Application you "will let it pull your profile information, photos, your friends' info and other content that it

requires to work" (See Figure 4.10). It is unclear however, exactly what information would be necessary for these Applications to run and whether the information accessed is *only* the information they would require to work.

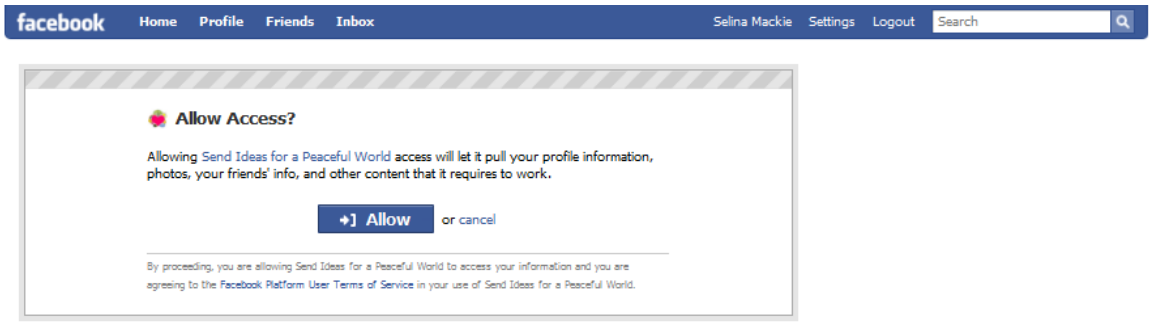


*Figure 4.10.* Notification that applications, if added (allowed), will have access to information. Adapted from Allow access. (2009). Retrieved January 30, 2009 from http://www.facebook.com/tos.php?api_key=36c586c3c56a0471a1c91032&next=http%3A%2F%2F67.225.142.163%2F~vsyrup%2Fgift. Copyright 2009 by Facebook.

Applying the Fair Information Practices (FIPs) to the vagueness in this second point of the Applications Privacy page (Figure 4.9), which explains how information is shared with applications, suggests that their practices fall short of the internationally recognised guidelines developed to discourage misuse of information (See Bennett & Grant, 1999). While the US Federal Trade Commission has developed and recommends a much shorter list of FIP's (Lal Bhasin, 2006; Fernback & Papacharissi, 2007), businesses are not legally bound by them. I refer here to the lengthier internationally recognised FIPs for two reasons. The first reason is that Facebook has a vast international membership, many of whom are EU citizens whose privacy is defined as a fundamental human right in the European Data Directive. The second is to illuminate how the balance of the competing values of privacy and commerce becomes tipped in a "self-regulating" environment where the business discourse advances economic interests and where personal data is viewed as a commodity (Fernback & Papacharissi, 2007; Lal Bhashin, 2006; Raab, 1999; Starke-Meyerring, Burk & Gurak, 2004). Briefly considering Facebook's practices in relation to the FIP guidelines will shed light on where the balance tips in the struggle of privacy and commerce at the site of the Facebook technology.

The first FIP that seems inadequately reflected in the practices outlined in the second point of the Privacy Applications page is: *identifying the purposes* for which information is processed. Although it is explained that personal information might be necessary in order for an application to "work", it remains unclear exactly what or how personal information is required. The second point relates the principle of collecting personal information with the *knowledge and consent* of the individual. Given there is a fair amount of personal data contained within a profile, photo tags and friends' Facebook accounts, users would not be able to ascertain exactly which information the Application actually accesses in order to "work". So even though users might click "allow" after being advised of the application accessing information, they are hardly in a position to give fully informed consent. The third principle that appears to be inadequately reflected in the practices of the site relate to ensuring that personal information is protected with appropriate *security* safeguards. Although, as noted in documents such as Facebook's Platform Application Terms of Use and the Principle/Privacy Policy, Facebook indicates that they do implement contractual and technical steps to restrict possible misuse of personal data, they also absolve themselves of any responsibility for the misuse of personal information by application developers. With over 350,000 Applications on the Facebook Platform (Facebook 2009f, Platform section), however, and none of them being vetted via proactive means, but instead being regulated through a reactive system of reporting violations (Facebook, 2008, 2009a, 2009b), it is only reasonable to anticipate the likelihood of at least some application developers reneging on the contractual agreements. This is especially so if the practice involves the mining of information stores for personal information that actually has a market price in the data broker industry (Barnes, 2006; Burbules, 1997; Starke-Meyerring, 2007b; Starke-Meyerring & Gurak, 2007). Further, given the invisible and indiscernible quality of information collecting practices (Lal Bhasin, 2006; Lessig, 2003, 2005, 2006; Starke-Meyerring, 2007b, Starke-Meyerring & Gurak, 2007), there are likely few instances where users would become immediately aware of this sale of their information or be able to trace it back to the practices of a rogue Facebook application.

The practices of information sharing that are explained in the third point on the Privacy Applications page (Figure 4.9) reflect similar discrepancies with the FIPs. This

point explains how applications interact with member information and reads: "**When a friend of yours visits an application or authorizes it, the information the application can access includes your friend's friend list and information about the people on that list**" (see Figure 4.9). For similar reasons as outlined above in relation to the second point, the Facebook's practices explained in this third point seem incongruous with the guidelines' aim to ensure fair use of information through *identification of the purpose* for which information will be processed, collecting information with users' *knowledge and consent*, and protecting the information with the *appropriate security and safeguards* (See Bennett & Grant,1999). But the matter regarding *knowledge and consent* seems particularly troublesome given that in no way, shape, or form can one reasonably consider users to have given consent for their information to be accessed by an application simply by being on the friend list of a friend.

Facebook, however, seems to have exercised a rather crafty way around this matter. The practice of sharing information with applications is also stated in the Privacy/Policy which states that "By using or accessing Facebook, you are accepting the practices described in this Privacy Policy" (Facebook, 2009a, Facebook's Privacy Policy section, ¶ 2). Further, during the Sign Up process, users are given notice that by clicking the Sign Up button they indicate that they have read and agree to the Terms of Use and Privacy Policy (Facebook, 2009f). Thus, the design of the site seems to present information about Facebook's information sharing practices in a convoluted and confusing way. And while this would impede users from becoming aware or clear of what information is being shared and for what purposes, by the first moments of the Sign Up procedure, they have given what Facebook might argue is their consent of the practices. This is regardless of whether a user followed through with reading the documents that might have (or might not have) been instrumental in making more informed decisions.

The third point continues on to provide another example of the confusing process of accesses to explanations that might facilitate well informed decision making that might restrict applications' access to personal information. The bold text of the third point states: "**When a friend of yours visits an application or authorizes it, the information**

**the application can access includes your friend's friend list and information about the people on that list**" (see Figure 4.9). Yet, the last paragraph within this third point provides a link to the settings that users might use to "control which types of information are available to *friends through applications* [italics added]" (see Figure 4.9). Thus, the link to access the actual settings seems to undergo a shift of focus as if to alert the user of the importance of controlling what information *is available to friends* through applications, rather than focusing on limiting the application from accessing users' information through their friends' use of applications. This suggests another example of the diversion strategy that concentrates the focus of privacy issues on risks that may be presented by other users who have access to information, rather than concerns relating to access, collection, and use of information through technological design.

By clicking on the Settings link within this third point, users are brought to a page which offers some explanation regarding how information is accessed and a range of varied control settings (Figure 4.11). The first section titled What Other Users Can See via the Facebook Platform, indicates that "when a friend of yours allows an application to access their information, that application may also access any information about you that your friend can already see" (see Figure 4.11). This aspect of design again ties the applications' access to information to what friends can see. Therefore, in order to limit friends' applications from accessing personal information, users would again have to limit their friends from the information. This is yet another example of the legislative type of consequences designed into technologies that tend to impose a disciplining effect on users who do not comply with the larger aims or desired outcomes underlying the design (Lessig, 2006; Longford, 2005, Feenberg, 2002, 2008). In this case, any resistance to sharing information with applications, simultaneously results in the restriction of information from friends.

The page, however, does not even provide the settings to control or alter what friends can see, and thus what the applications can access. In order to alter this access to personal information it seems users must go to their Profile Privacy settings pages. This, however, is not stated on the page; what the page does state is that the settings in the corresponding section allow you to "limit what types of information your friends can see

about you through … applications you do not use yourself" (See Figure 4.11). This again

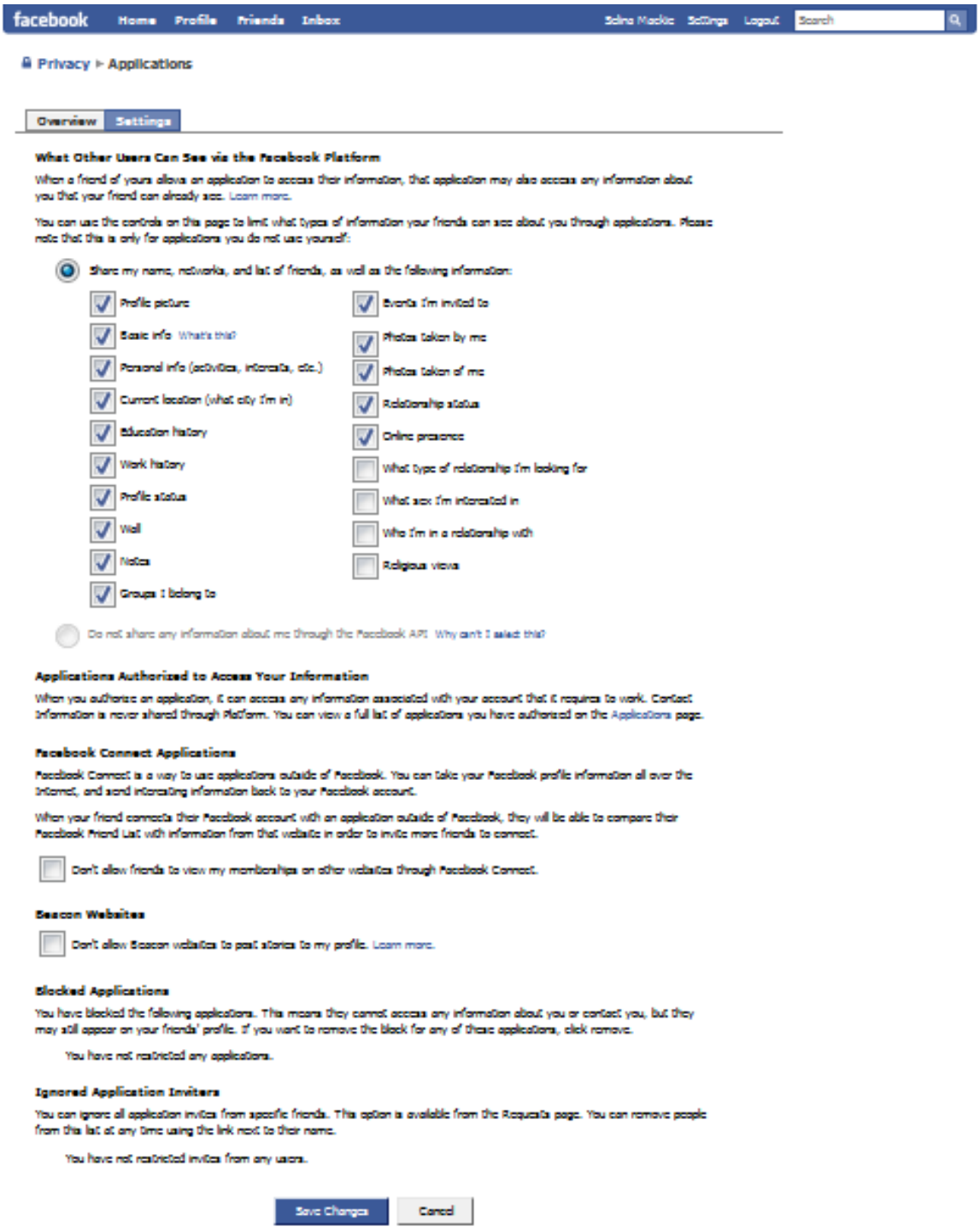


*Figure 4.11.* Page accessed from a link on the privacy-applications page. Adapted from Applications settings. (2009). Retrieved April 17, 2009 from http://www.facebook.com/home.php?#/privacy/?view=platform&tab=other. Copyright 2009 by Facebook.

subtly advances the importance of protecting information from other users rather than from the technology of the site. Further, it takes a bit of persistence and a determined interest to suss out what the settings do. These settings will only manage what will be shared about you with your friends through applications that your friends use. Without careful consideration, however, it would be very easy to assume that ticking the boxes might limit what information might be accessible to applications rather than what is shared with friends.

At the end of a series of twenty tick boxes which allow users to limit "what types of information [their] friends can see about [them] through applications" (Figure 4.11), is one tick box that allows users to restrict the sharing of their information through the Facebook API (application platform interfaces). The default setting of the option is to share information and in my case, I was initially disallowed from changing it. However, I clicked on the anticipated question at the end of the setting option that asks "Why can't I select this?". The pop up box indicated that I could not opt out as I was currently using applications (I had previously authorized and added applications to my account). However, once I worked through the process of removing all applications (other than the standard Facebook applications which cannot be removed), I was able to select the option that restricts the sharing of my information through applications. What remains unclear, however, is whether that particular setting means that the applications cannot access my information, or if they simply cannot share it with other friends.

On the same page users do have an option to "block" specific applications (Figure 4.10). The page will actually list users' "Blocked Applications" and explains that blocked applications "cannot access any information about you" (See Figure 4.11). However, it does not give any explanation of how to go about blocking applications. It instead explains how users might remove a block. Thus, in order to block an application's access to personal information, users must do some self-initiated exploring (see Figure 4.12).

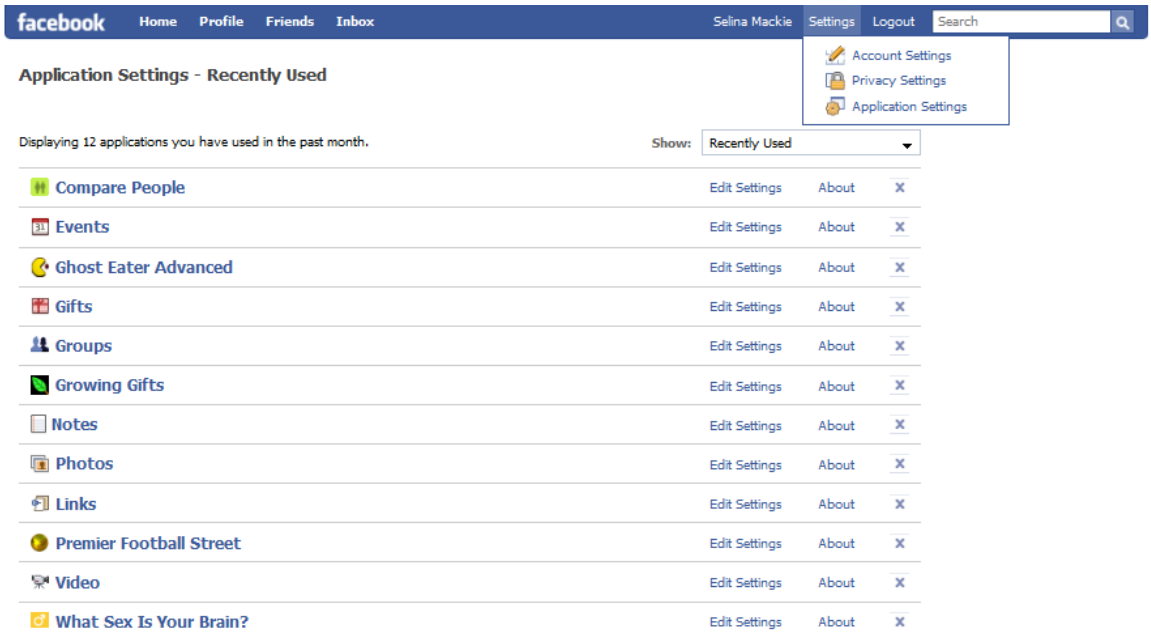


*Figure 4.12.* Access to application settings page from the settings menu. Adapted from Recently used. (2009). Retrieved April 18, 2009 from http://www.facebook.com/editapps.php?ref=mb. Copyright 2009 by Facebook.

Figure 4.12 depicts the Application Settings page where one can work through the steps to block a specific application. Clicking the "edit settings" options within the Application Settings page (Figure 4.12) provided a range of privacy control options but the options are again limited to controlling who amongst other Facebook members would be able to see the specific applications in the profile of users who have opted to authorize the applications (i.e. restricting friends of friends, friends or networks from seeing the applications one has downloaded). This again advances privacy as something worth protecting from other individuals. The design of the privacy options within this applications settings page, however, does not include an opportunity to limit applications' access to users' information or to block applications.

In order to block an application from accessing personal information, users must visit the actual application (which does not necessitate actually authorizing the

application) where they will find an option to block the application. This option is available whether or not users have authorized the application themselves. If it is an application that had been authorized, however, once users go to access the application, it becomes apparent that the act of blocking it has removed it from their account altogether. Therefore, if users wish to restrict an application's access to their information, it appears that their privileges to use the application are withdrawn, demonstrating another example of the legislative type of effects that the site technology is designed to impose (Lessig, 2006; Longford, 2005, Feenberg, 2002, 2008).

If users want to block an application from accessing their personal information via a friend who has authorised the application, they can work through the same blocking process by searching the application directory for the name of the application. The tricky part, however, lies in doing this for all applications that all friends have authorized. This is especially so given that the average user has 120 friends (Facebook 2009f, User Engagement section) and seventy percent of users interact with applications on a monthly basis (Facebook 2009f, Platform section). Further, as noted above, users can use privacy settings to restrict who can see what applications they have authorised. Friends who have limited the visibility of applications on their profile would further complicate this process for users who might wish to block applications from accessing their information. Thus, the nature of the Facebook design makes it very difficult for users to know which applications might be accessing their information and to intervene accordingly.

Compared to the process of limiting information from other Facebook members, the process of limiting information from applications seems clumsy and convoluted. And even the most persistent users who might spend the time familiarizing themselves with the documents and settings would likely at times feel unsure of the effectiveness of their decisions. This sends a clear message with respect to the definition of privacy that the site is designed to advance; that message is that protecting privacy is a personal matter that essentially equates to protecting one's personal details from being accessed by potentially ill-intended others. However, this is only one example in a catalogue of insights which have been generated and presented in this analysis regarding the political nature of the Facebook design.

## Conclusion

This critical analysis of the Facebook technology was undertaken in order to fulfil my purpose of generating insight with respect what it might yield for citizenship education, specifically with respect to competing values of privacy and commerce. Thus the key research question was posed:

> What insights might a critical analysis of Facebook's technological design yield for digital citizenship education in schools, specifically for questions around privacy and commerce?

This key research question is addressed by critically analysing the political nature of the site design in order to generate insight with respect to how the interests of various actors are served by the site, how the site encourages a set of practices around the sharing of information, and whose interests are served by these information sharing behaviours. Thus through the critical analysis I aimed to answer the first two research sub questions that ask: How does the technological design of the site serve the interests of various actors such as users and operators? How does the site design encourage and normalize the sharing of personal information amongst its users and for what or whose purpose?

These questions are closely interrelated and generating understanding with respect to one in many instances provides insight to the other. This section will present the findings of this analysis which revealed that the technology of the site utilizes information disclosed by users to facilitate various services for them, most namely by facilitating connections with others and providing an opportunity for identity expression. Although this provision is repeatedly stated within the site, the site only hints at the ways that the stores of personal information serve the purposes of the site operators in that it indicates that the stores of disclosed personal information allow for targeted marketing. Ironically, the site even couches this in language that advances it as a benefit to users by stating that it allows Facebook to provide a "personalized" service. Facebook executives, however, have claimed in public interviews that advertising is a core revenue source for Facebook and targeted marketing is a significant part of this business strategy. Despite the understated benefits that the stores of information provide to the site operators, the results show that the design of the site is weighed heavily in favour of their commercial

purposes at the expense of the membership's ability to control their information, thus undermining their privacy. The following will present the key insights regarding the strategies deployed to encourage the sharing of information, which serves lucrative commercial purposes for the site.

The most prevalent means of eliciting information is, ironically, how the site repeatedly advances the benefits that users (will) receive from disclosing information while the benefits that the site operators will reap are virtually omitted. The importance of personal information to the process of connecting with others is presented throughout the Sigh Up procedure. During the process users are "walked", step-by-step, through a process that allows the site to elicit snippets of information while explaining how the information will assist in the process of connecting with others. Even the operators' own benefit of using the information for targeted marketing is expressed in the Principles/Privacy Policy as providing a benefit to the user in the form of a personalized service.

While social connections are a primary reason users flock to the site (Barnes, 2006; Bumgarner, 2007, Coyle & Vaughn, 2008; Ellison, Steinfield & Lampe, 2007; Raacke & Raacke-Bond, 2008), identity expression is also favoured by users (boyd, 2008; Hinduja and Patchin, 2008; Livingstone, 2008; Subrahmanyam & Greenfield, 2008; Tynes, 2007). And although the site also advances self-expression, albeit to a lesser degree than social connections, users initially are groomed and prompted to provide very specific information. The step-by-step process of signing up provides a pre-profile creating experience and the full profile pages prompt very specific information which is more akin to a market survey than free self-expression.

Another very prominent aspect of the design that appears to encourage the free flow of information is the repeated messages promoting the use of the privacy settings to protect user privacy from other members. The very first paragraph of the Principles/Privacy Policy explains how Facebook is for sharing information but that the site "gives" users control of their information through the use of privacy settings. Further, when editing the contact information page of their profiles, users are offered an

instantaneous link in the form of a padlock icon to edit their privacy settings. This implies that the site design is very accommodating when it comes to protecting privacy from other members. But these instances reveal a narrow definition of privacy and the design is significantly less accommodating when it comes to protecting information from the technological affordances of storing, sharing, and using it for purposes such as advertising, as is indicated in the liberal uses of user information that Facebook grants itself in the Terms of Use.

According to critical theory, technologies are designed with legislative type effects which elicit user complicity by imposing restrictions of access or delivering undesirable consequences for users' non-compliance with the larger aim of the technology (Lessig, 2006; Longford, 2005, Feenberg, 2002, 2008). Such design effects are apparent in the design of Facebook from the very early Sign Up procedures. On the first page, users are denied access if they do not give the required information. In these early stages, users are also required to give a valid email account which the technology of the site actually confirms before granting the member access to the site. Further, in more than one instance, the sharing of user information with friends and/or other Facebook members is tied to sharing the information with applications. Thus if users do not wish to share their information with applications, they must then restrict their friends or other members from the information as well, thus suffering an undesirable consequence.

With respect to information gathering by the technology of the site and the uses that personal information will be put to, users receive ambiguous and confusing explanations which make it difficult for users to make clear and informed decisions. This is in spite of the Principles/Privacy Policy stating that it is designed to help users make informed decisions. However, this lack of clarity is not only reflected in Facebook documents, it also occurs in settings that hamper users' ability to restrict applications' access to their information. Compounding this lack of clarity is the convoluted process involved in accessing the settings that could restrict applications from users' personal information. In some cases there is reference made to being able to restrict access, but no explanation of how. As a result, users must exercise persistence and a method of trial and error to try to establish the location of privacy control settings.

Although the critical analysis did not apply the Fair Information Practices to the site in general, the FIPs were applied to a very small portion and the results indicate that the site was not designed with these practices at the forefront. The site's liberal sharing of information with applications without vetting the developers falls short of the principle requiring that users of information ensure the security of the information they collect. Further, the confusing and ambiguous information provided to users regarding: 1) what information is shared with applications when they allow one, 2) what the purpose of providing it to applications is, and 3) allowing applications to access the information of the people on friend lists, all fall short of the FIPs. This suggests that personal privacy is not a high priority for the operators of Facebook.

Another design feature that seems to be intended to encourage the sharing of information is the presentation of the Truste icon and the statement of voluntary compliance with the Safe Harbor Privacy Principles in the Principles/Privacy Policy. Although the purpose of the Truste privacy seal and the Safe Harbor framework are to elicit a standard of privacy practices, their motive is commercial. Further, they have been criticised for their (in)ability to oversee practices within a self-regulatory environment and for the possibility of simply providing an impression of assurance that works to mislead website visitors.

Thus in response to the first two research sub-questions, Facebook employs a variety of strategies to elicit the sharing of information. This information serves both the purposes of the users as well as the purposes of the site operators, albeit with very different consequences. The sharing of information serves to facilitate convenient and efficient social connections amongst the membership and offers the opportunity for identity expression. The very same stores of personal information serve a lucrative commercial purpose for the membership. The commercial purposes of the site operators, however, occur at the expense of privacy as a collective good through the liberal use and distribution of the stores of personal information. While the technological design of the site does fulfil much sought after purposes for users, it uses a variety of strategies to encourage unrestrained flows of information amongst Facebook users in spite of the infringement of privacy as a social good. Thus, commercial values that underlie the

design of the site result in a design that is biased to privilege the purposes of the Facebook operators at the expense of privacy.

According to critical theory of technology, technologies are value-laden designs that serve varied purposes and are biased to privilege some purposes or interests over others. The intersection of values which motivate the end purposes takes place at the site of the design. This intersection is, in effect, a political struggle that contributes to the reinforcement of power relations. The values reflected in technological designs according to substantivists and critical theorists alike (Feenberg, 2002, 2006) predominantly reflect the broader assumptions of the surrounding culture. They thus mirror values characteristic of the modern era such as efficiency, productivity, profit, power and control (Feenberg, 2002; Borgmann, 1992). The pervasiveness of technological designs and systems in contemporary society has resulted in an entire way of life mediated by technology that largely privileges the values noted above while overshadowing competing values of a more humanitarian or environmentally sensitive nature. As a result, the oppressive effect of our modern technologically mediated way of life has had grave effects on certain social groups and the environment. The difference between substantivist perspectives and the perspectives of critical theory of technology, however, is that critical theory of technology holds that the technology does not *have* to reflect such values. By questioning the larger taken-for-granted assumptions of society that are reflected in technological designs, users of technology could deliberate on and democratically participate in the negotiation of future designs that reflect more humane or environmentally sound values and interests. It is this belief in the possibility of influencing the shape of future technologies that calls for empowering young people to appreciate their potential to participate in this process and critically question the values reflected in digital technologies such as Facebook.

I consciously use the term “such as Facebook” as this project was not undertaken to demonize Facebook. And it is not about whether Facebook is good or evil. As a matter of fact, it is not even simply about Facebook. This analysis was intended to demonstrate the political tug of war between interests that take place at the site of technological design and to promote participation in this struggle. While Facebook as a particular example

might suggest that even with a well developed notion of privacy as a social good, the potential impact may seem relatively minor; the consequences of pesky adverts seem far from dire. These technologies, however, are designed with the capability to collect, store, share, personal information on a scale never before imaginable. As a result, privacy as a social good has been increasingly weighed against other societal values such as commerce - as in the case of this study - but also national security in the wake of 9/11, crime prevention, and even efficiency of service (Raab, 1999).

According to critical theory of technology, however, it is not about questioning individual technological designs, it is about questioning "which values are to be embodied in the technical framework of our lives" (Feenberg, 2006, p. 14). This does not mean to imply that individual technological designs, however, are irrelevant. Rather, we need to appreciate the implications of our uncritical engagement with the technologies, such as the existing design of Facebook, in the context of larger technological systems that tend to place the value of privacy as social good as secondary to, or as some would argue, in conflict with, other values. Engagement without active negotiation or resistance to the existing design of Facebook essentially equates to complicity with values reflected in a range of digital technological systems that have been designed with a tendency to undermine privacy as a collective good. As such, critically informed users have a responsibility to look beyond their own immediate conveniences and personal privacy protection afforded by the Facebook site. They must learn what it means to exercise their responsibility as a digital citizen to promote values that reflect the interests of the larger social good by actively participating in the democratic shaping of technological designs.

## Chapter Five – Conclusion

This study began by highlighting the lack of critical perspective in the debates surrounding the social networking site, Facebook. The dominant theme in debates relating to social networking sites, and digital technologies more generally, do not extend beyond a simple appraisal of whether the technology is good or bad. Such debates tend to limit the possible solutions to any untoward consequences of technology as either resting in the restriction of use or in promoting responsible and informed use. The debate surrounding the role of technology in education is no different. As such, educators are left to grapple with wildly evolving and wide ranging technologies and the role they might serve in educational programs without sufficient guidance and resources to assess technologies on a more critical level. This study set out to address this lack of resources and to extend appraisals of technology beyond whether they are simply good or bad. It aimed to highlight the political nature of technological designs and to instigate democratic citizen participation to influence the values that might be reflected in emerging technological designs.

The overall purpose of this project was to generate an understanding of the design of the Facebook technology as a scene of struggle between the competing values of commerce and privacy. My hope is that this analysis might support teachers to develop the critical citizenship capacities of young people by empowering them to participate in determining what values might be reflected in future technological designs. In order to do so, technological designs must be understood as socially influenced structures that reflect subjective and competing values which are embedded in the design through the selective decisions made during the design process. These human decisions shape the technology to serve subjective purposes, which results in politically charged designs that are biased to privilege certain groups or interests over others. This technologically mediated means of privileging certain groups through the reflection of values delivers hegemonic effects and reinforces the existing power relations in larger society. By critically understanding the socially influenced political nature of technologies, users of technology are better positioned to question which values are reflected or privileged in a given technology and

appreciate the possibilities of democratically negotiating what values might be foregrounded in the designs of future technologies.

To fulfil this purpose I conducted a single embedded case study informed by an advocacy epistemological position integrated with a critical theory of technology perspective. I critically analysed various aspects of the technological design of the Facebook social networking site in order to answer:

> What insights might a critical analysis of Facebook's technological design yield for digital citizenship education in schools, specifically for questions around privacy and commerce?

The analysis was approached by addressing this key research question through two sub-questions: How does the technological design of the site serve the interests of various actors such as users and operators? How does the site design encourage and normalize the sharing of personal information by it is users and for what or whose purpose? A third sub-question relates the findings of my analysis back to my larger purpose and asks: What are the implications of the analysis results for digital citizenship education?

## Findings and Results

The findings of the study unveiled the political nature of the Facebook technology. These findings reveal that the site is designed with various strategies that coach users into sharing personal information.

First, the site tends to advance the benefits users will receive for sharing information. This is usually related to how it facilitates social connections but it also appeals to their interests in identity expression. These stated benefits are in virtual absence of how the site operators also benefit by using the information to generate revenue through targeted marketing.

While the site focuses heavily on promoting the social connections facilitated through information disclosure, it does promote the profile creation process as a means of expressing identity. This process elicits very specific information that appears to be

categorised in a way that is particularly revealing about the users preferences and income potential, thus appearing to serve as a particularly informative instrument for advertising purposes.

Further, the site promotes the privacy settings as if the settings are designed with the value of privacy as paramount. However, consistently the definition of privacy that is advanced is focused on concealing information from other users rather than from the information harvesting, manipulating and sharing affordances of the technology.

There are also several examples of the site being designed to impose legislative type effects where users experience an undesirable effect (Lessig, 2006; Longford, 2005; Feenberg, 2002, 2008) if they do not acquiesce to the site's requests for information. This is in the form of restricting access to users if they do not comply with the specific information prompts upon signing up and also in more than one instance of requiring users to limit other users' access to their personal information if they want to restrict the same information from applications.

Another means of eliciting information from users is through the process of hampering the ability to make an informed decision about restricting applications' access to their information. While the process and accessibility of restricting privacy from other users is straightforward and rather user-friendly, the process of interrupting the process of the technology sharing personal information with applications is clumsy, convoluted and riddled with explanations that are difficult to decipher.

When applying the Fair information Principles to a small aspect if the site, it again became apparent that personal information did not hold a particularly prized value. Thus, although the site repeatedly advances the privacy settings as a means of users being able to control their information, the notion of privacy is narrow and holds little worth when set in balance again the large-scale collection of user information.

Another feature that appears to encourage the free flow of information is the clear and visible presentation of the Truste privacy seal and the statement of participation in the Safe Harbour Framework. However, while they do set some standards of practice and

provide some complaint resolution services, the underlying motive of their mere existence is commerce. Thus, Facebook's stated voluntary compliance with them likely does as much good for Facebook as it does for the members, if not more so.

While the disclosure of information facilitates social connections and provides a means of expressing one's identity, the large stores of data also serve lucrative commercial purposes for the operators of Facebook by allowing them to deploy highly informed targeted marketing campaigns that are negotiated with other businesses. Thus, the very information sharing practices that contribute to users' convenient and efficient social connections actually privilege the commercial purposes that undermine privacy as a social good.

## Recommendations

The bias reflected in the technological design of the Facebook site does not suggest that the message to be taken from this project is that Facebook and other social networking sites do not have any educational worth - quite the contrary. Facebook and other sites that are very popular with young people do indeed hold educational value, but not for the same reasons highlighted in the dominant themes in the literature. In the literature that refers to using such sites as educational resources, the focus tends to be on preparing young people to address the risks presented by ill intended individuals. Solutions therefore are viewed as developing habits of responsible use rather than questioning the values reflected in the design. Little consideration however, is given to how the systemic electronic collection and sharing of personal data undermines privacy as a collective good.

The findings of this study demonstrate how the digital collection, storage, and sharing of personal information allows the site to simultaneously serve the purposes of both the membership and the site operators. However, the design is biased to deploy a number of strategies that encourages the elicitation of information, which serves to privilege the commercial interests of the operators. According to Critical theory of technology, this exemplifies the political nature of technologies. Facebook does not do this with any ill intent but rather the commercial motives are systemic in nature and are

so ubiquitous in society that the values informing such practices are virtually invisible and thus go unquestioned.

Therefore, such sites provide an excellent starting point for educators to begin engaging students in initial discussions that raise awareness of 1) how sites can use information in order to advance their own commercial interests, 2) the potential harms of undermining privacy as a social good, 3) the responsibility of citizens to consider the impact of their actions and an appreciation for looking beyond their own self-interest when weighing complicity against resistance, and 4) the larger implications of uncritical compliance with such sites and other digital technologies that tend to undermine privacy.

Such discussions are beneficial even beyond students' engagement with Facebook and other social networking sites as they might increase students' inclination to peruse the privacy policies/statements and terms of use/service of other sites that request their personal details in order to begin the process of critically questioning the value that is placed on their privacy. Although a critical assessment goes well beyond the policies and statements, this would be a starting point to illuminate the value of privacy as a social good and to begin encouraging students to think beyond their own personal interests. It is therefore recommended that Facebook and other social networking sites not be unnecessarily banished from classrooms, nor uncritically endorsed through teaching opportunities that focus on responsible use and privacy settings. Rather, such sites have a lot to offer with respect to empowering students to appreciate and exercise democratic opportunities to challenge hegemonic effects enacted through technologies.

## Limitations of the study

The difficulty in accessing the finer details of Facebook's business model was a limitation of this study. As a private company, Facebook is not subject to the same regulations as publicly traded business entities. They therefore are not required to reveal their financial activities for the purpose of informing public investors of their financial status. However, evidence of Facebook's viability as a company was not difficult to ascertain. Through sources such as the Facebook site and published interviews with Facebook executives it is apparent that Facebook's revenue generating strategies are

sustaining it well as a business enterprise. Although advertising is not the only source of revenue for the site, it is an important, if not the most important part of the Facebook business strategy and revenue is expected to grow by seventy percent in the coming year (BusinessWeek Online, 2009; See also Campaign, 2009). Further, with regard to the recent appointment of Chief Financial Officer, David Ebersman, Mark Zuckerberg, CEO of Facebook stated: "He was Genentech's CFO while revenue tripled, and his success in scaling the finance organization of a fast growing company will be important to Facebook" (Facebook, 2009d), which is an indication of the importance of profits to Facebook and suggests the intention of future financial growth of the evolving company.

The fluid and changing nature of the websites is another limitation of this study. Throughout the process of data gathering, it was important to record data by cutting and pasting documents and taking screen shots as the policies, statements, and interface of the site are in constant flux. From the inception of the data gathering procedures to the time of writing, some of the units of analysis evolved, and in some instances, these changes were substantial. I, however, continued with the analysis and the presentation of the findings based on the initial records of the site that I had generated. I believe that the credibility of the results remains constant as the multi-source data collection procedures serve to validate my critical analysis and findings that the technology of the site is value-laden and designed to privilege certain purposes. In other words, it is my assertion that the changes occurring as a result of the continual evolution of the site will not affect the political nature of the design of the Facebook technology.

This study did not investigate participant interactions with, or perceptions of engagement with the Facebook site, which further limited the scope of this project. My purpose, however, was to promote critical citizenship education by increasing awareness of the political nature of technologies and to raise awareness of the possibilities for democratically contributing to the values embedded in emerging technological designs. As such, a critical analysis that focussed specifically on the design of the site was an appropriate means of addressing the purpose of my study.

## Future Areas of Research

Through examination of various documents (privacy policy, terms of use, platform terms of use), this study was able to generate some understanding of the permissions Facebook grants itself with respect to the collection, manipulation, and distribution of personal information. Further studies might consider the experience and engagement of young people with respect to privacy policies and terms of use. It could explore their understandings of the purpose of such statements, their reasons for reading them or not reading them and, in the cases of students who make a practice of reading them, their perceptions on how/whether it informed their information sharing practices. Another study could consider young people's revelation of personal information. It could consider why they reveal information and what types of information they tend to share and not share, the factors influencing such decisions, and implications of information sharing practices. Such a study might generate some insight with respect to young people's current general perception and notions of privacy as a collective good.

The outset of this project identified the lack of resources available to assist and guide educators in critically interrogating the political nature of technologies that they consider for use in their programs. As such, further studies that critically examine the values reflected in common technologies used in educational contexts, as well as the technologies we routinely engage with more generally, would be beneficial. Such studies would not only provide another possible resource for educators and administrators to consult when considering the role of technologies in their classrooms, it would also reinforce the procedures and value of critically appraising the values reflected in such technologies. Promoting such a process is a worthy endeavour. According to critical theory of technology, technologies are political structures with hegemonic effects. Our increasingly technologically mediated way of life warrants an understanding of the possibilities to challenge existing power relations that are reinforced through technological designs.

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