Cyber Surveillance and Privacy in Canada

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Abstract

The aim of this study is to explore the body of available research regarding the topic of cyber surveillance and privacy in Canada. This research will draw particular attention to current legislation and emerging trends for the future. There is a need for a comprehensive examination of the available sources, as the world is becoming increasingly more digitized and legislation will inevitably have to be adjusted to keep up with the changing times. This study will highlight some of the key academic sources on the topic, as well as Canadian public opinion surveys about privacy rights. This study utilized a mixed methods approach and contains both qualitative and quantitative secondary data. Major discussion centers around the parameters of surveillance in Canadian society and what implications that surveillance yields. The results of the research conclude with the finding that there is an apparent disconnect between the knowledge and comprehension that Canadians have about cyber surveillance, in comparison with the apparent concern alluded to by the academic literature.
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Background

The background and purpose of this study is informed by the statement “balancing the emergency against the intrusion” (Geist, 2015). The context of this statement describes the need for cyber surveillance in order to best ensure national safety, against an overstepping into citizens’ personal information. In fact, the United Nations Declaration of Human Rights (1948) Article 12 states that “No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.” The average person would assume that this provision extends to their online privacy and correspondence as well. However, with the influx of a more digitized and therefore more monitored world in recent years, Canadians may be experiencing an unprecedented breach in privacy.

At its most basic level, surveillance endeavours to provide a way of discovering and noting data that may be converted to information (Marx, 2015). Cyber surveillance, a form of new surveillance, is more intensive, extensive, and can operate at lower costs than more conventional human surveillance. It has a further potential reach and lower visibility than traditional modes of surveillance, making it a tool that is quickly being widely adopted by government agencies and law enforcement in the interest of resources and efficiency (Marx, 2015).

In a recent study conducted by McAfee and the Center for Strategic & International Studies, they have estimated that two-thirds of the people online, more than two billion individuals, have had their personal information stolen or compromised (Lewis, 2018). While the implications of online identity theft and the lucrative business of cybercrime are beyond the scope of this report, these results are troubling to say the least. It is also estimated that
cybercrime may now cost the world almost $600 billion, or 0.8% of global GDP (Lewis, 2018). It is clear that this is an inherent problem not just for Canada, but worldwide.

It is because of statistics like these that surveillance through government and law enforcement agencies is deemed necessary. Advocates of a surveillance society see this as an important and useful resource for law enforcement to prevent crime like never before, and an opportunity to provide irrefutable evidence if a crime is committed and surveillance is available. These supporters follow the old adage, if you aren’t doing anything wrong, there is no reason to fear. However the trade-off for this kind of protection could mean justice for all, and privacy for none (Bilton, 2013). Inquiries into whether the government and their agencies are collecting beyond the reasonable needs of their operations is where the beginning of the concern lies.

**Research Question & Rationale**

The purpose of this study was to provide an informative and current report in the field of public safety and law enforcement, focusing on cyber surveillance and privacy. This research study sought to answer the question, does cyber surveillance help or hinder the safety of Canadian citizens? As I first began pondering the idea of this topic, I was immediately confronted with an onslaught of questions. I began to realize the breadth of this topic and the many threads that run through it. The concept of privacy was at the forefront of my questioning. Notions such as Canadians attitudes towards acceptable levels of personal privacy, the extent to which they were being monitored, and their knowledge about what purposes the information being collected was used for were brought up. I was curious to know whether citizens were willing to forgo some of their personal privacy in the name and interest of national and/or their own security.
Philosophically, I endeavoured to find out more about what the meaning of privacy is, how it’s defined currently in literature and legislation and how that definition is changing. Upon entertaining these thoughts, I then shifted focus on to public safety and the emerging threats of an increasingly cyber focused nation. The potential dangers for hacking into government, law enforcement, and citizen data are unprecedented at this time. The damage and manipulation that can be inflicted by someone with a particular set of hacking skills could be irreversible if there are not safety provisions set in place.

All of these considerations led me to design a research question that funneled these ideas into a succinct and concise research project. Thus, this study examined the available research on cyber surveillance, privacy, and the current legislative framework in place in Canada.

**Literature Review**

The literature found and utilized in this report helps to expand upon the research question by drawing on available academic research and findings. I started my initial search of the literature using broad keywords such as privacy, law, intelligence, internet, security, and ethics. These initial searches yielded upwards of 5,000 articles, far too many results to review, and many not aligned with my research topic. I narrowed my search by including terms such as cyber-surveillance, Canada, accountability, controversy, and legislation. I also decided to exclude any research prior to 2007 in an effort to obtain the most current knowledge in the field. In addition, I also eliminated any articles not written in English, as well as an exclusion of articles that were hosted on websites that require a subscription and/or login code to access the documents. Through a combination of these terms and search refinements, I was able to find a manageable list of approximately 80 peer-reviewed academic articles to further examine. I used
the Justice Institute of British Columbia (JIBC) library database, Google Scholar, and the Camosun Library website to conduct these searches.

Of the viable results gathered in the literature search, I chose to move forward to an abstract review based on a number of criteria. This criterion included preference given to articles published by Canadians or in Canadian journals, and whose subject lines contained the most relevant keywords. I also ranked the articles for abstract review based on date published, looking to examine the most recently published works first. After further inquiry, I decided upon eight articles for final review and analysis. These final eight were chosen as they met the criteria for relevancy, appropriate time period, and for the breadth of knowledge they could offer. Each article chosen shed light on a different facet of the research topic, helping to create a more concise picture of what this issue is composed of.

In my examination of the literature, several key themes emerged. The first theme included concern over privacy, particularly who has it, who does not, and who gets to decide. Parson’s (2015) eloquently describes privacy as most commonly thought of as a boundary concept, which conceptualizes that autonomous individuals enjoy a sphere within which they can conduct their private affairs separate from the public sphere of the government. However, in the cyber domain there is no global consensus about what sets the precedent for personal data in cyberspace and what a person’s expectation of privacy should be (Inkster, 2014). This provides a problem for research as well as policy design as a concrete definition of privacy does not exist in the lexicon of security language.

The expectation of privacy in the cyber domain remains uncharted territory, and academics have raised concerns that this lack of formal structure allows governments to overstep privacy boundaries (International Network of Civil Liberties Organizations, 2016). Some
supporters of expanding national surveillance capabilities have suggested that the problem lies in the vernacular; that if the word surveillance is replaced with the term ‘generating knowledge’, the negative attitudes surrounding these practices would diminish considerably (Haggerty & Ericson, 2000). In contrast to this, some scholars lament that the term cyber surveillance could also be as easily replaced with the term digital espionage (Banks, 2017).

A secondary theme of note is control strategies, and how best to control both the internet, and the people who are on the internet with intent to cause others and/or the government harm. This presents a particular challenge when these threats are located outside of Canada. Bennett, Clement and Milberry (2012) recognize that the frenzied attention to the issue of the month tends to work against the sustained attention needed to build a more general understanding of systemic trends and their impacts. This problem is coupled with the fact that the digital landscape changes so rapidly that laws to protect privacy remain constantly underdeveloped, as law and policy makers struggle to keep up with emerging threats and new information about communications technologies (Zureik, 2010).

As indicated in a report by the Canadian Security Intelligence Service (CSIS), they noted that major threats arise from international terrorism in the form of malevolent hacking (Gendron & Rudner, 2012). They go on to say that a modern knowledge-based society and its economy must depend on new and emerging technologies, such as computerized control systems used by critical national infrastructures to monitor and control sensitive processes and functions (Gendron & Rudner, 2012). The report goes on to state that “this growth in connectivity, coupled to the inherent insecurity of Internet connections, has escalated the risks of cyber attacks” (Gendron & Rudner, 2012). This is echoed in the work of Geist (2015), who explains that effective action against terrorism requires cooperation between national security authorities,
law enforcement authorities, and border officials. These partnerships should occur alongside sophisticated technologies that make use of a global and interconnected communications infrastructure.

The collection of metadata, or summarized basic data information, through the practice of surveillance could fundamentally change the landscape of investigation work and warrants as well. The availability and accessibility of metadata supersedes the need for informants, tape recordings, or even confessions (Parsons, 2015). While some may view this as a positive tool for law enforcement to combat crime, caution should be exercised in considering the extent to which an intrusion is justified, and if an objective body will govern this developing domain.

Lastly, a major contending theme was secrecy and transparency. The combination of these two aspects of surveillance were addressed time and time again in the literature. The balance of the sensitivity of the work versus informing the nation of these agencies actions is a difficult one. Banks (2017) posited:

Keeping a nation safe is a high and noble objective, and intelligence can directly serve that end. The trick is to thoughtfully limit that power to collect intelligence only where it is necessary to safeguard national-security interests, and then to be sure that the intelligence function is subject to effective oversight. (p. 523)

It is this effective oversight that seems to be missing from the current equation. Geist (2015) uses the term ‘lawful-illegality’ to describe the conflict between state and citizens when cyber surveillance programs are exposed. It is the government’s interpretation of these laws that some may deem illegitimate, taking liberties beyond what the laws were intended for, thus the lawful illegality (Parsons, 2015). The public do not have access to these interpretations, and are left with an incomplete and partial picture of the realities of surveillance and public safety. In an
interview with CBC, American surveillance whistleblower Edward Snowden described Canada as having “one of the weakest oversight frameworks for intelligence gathering in the Western world” (CBC News, 2015). It is clear that this field of governance and accountability needs to be addressed in Canadian legislation. What is unclear is whether new or improved legislation will realistically provide more protective against intrusive surveillance (Inkster, 2014).

The necessity of these surveillance programs was mentioned time and again throughout the literature. The absence of all cyber surveillance in today’s world appears to be out of the question, but it’s the appropriate level of intrusion that is up for debate. “It is apparent that surveillance, while undeniably dangerous, can nonetheless at times serve desirable ends, including progressive forms of governance, building inclusive urban spaces, caring for loved ones, or scientific discovery” (Greenberg & Hier, 2009).

All of these aforementioned themes are key issues that connect the sources together. They paint a useful picture in understanding such a complicated issue with many sides, from people who represent various viewpoints, be it advocates or naysayers. These scholarly articles serve as a reference point to which public opinion data can be compared.

Methodology & Data Collection

As Lauterbach (2017) asserted, it is difficult to glean information and research on the totality of online surveillance, due to the secrecy that surrounds the nature of the topic. Thus, for the purposes of this research project I chose to rely on secondary mixed methods data. Secondary data is gathered from sources that are publicly available, and does not contain any first-hand personal opinions, thoughts, or beliefs that haven’t been published. The merit of using secondary data is that it allowed for ease of data collection, as well as the ability to bypass a lengthy and extensive review by an ethics board. A mixed methods approach utilizes both
qualitative and quantitative data. A qualitative approach was favoured for the literature as this was the information most readily available. The surveys examined for the data analysis were quantitative in nature, containing statistics and providing numerical representations pertaining to the research question. Using a mixed methods approach provided the best opportunity to examine and compare both literature and data for trends.

I found the Public Opinion Survey of Canadians on Privacy, prepared for the Office of the Privacy Commissioner of Canada, to be a particularly valuable source of information. I was able to access several years’ worth of information about the level of concern that Canadians have surrounding topics such as personal information, surveillance, and the internet with relation to safety and security. I examined the data for trends and patterns, and utilized this as the basis for conducting the data analysis. The survey results were published for a number of years, but my analysis primarily focused on years 2014 and 2016 in an effort to keep results as current as possible.

The researchers conducted the survey orally via telephone, utilizing both landlines and cell phones. The most recent survey was conducted between October 13th and November 3rd, 2016. The survey lasted approximately 15 minutes, and was administered to 1,500 Canadian residents ages 16 and over. A more specific breakdown of the participants across the country can be seen in Table 1:
Table 1

<table>
<thead>
<tr>
<th>Strata</th>
<th>Completed Interviews</th>
</tr>
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<tr>
<td>Atlantic</td>
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</tr>
<tr>
<td>Quebec</td>
<td>350</td>
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<tr>
<td>Ontario</td>
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<td>Prairies</td>
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<tr>
<td>British Columbia</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>1,500</td>
</tr>
</tbody>
</table>

Table 1: Completed Interviews by Region. Reprinted from *2016 Survey of Canadians on Privacy: Final report*, prepared by Phoenix Strategic Perspectives Inc. for The Privacy Commissioner of Canada.

**Data Analysis**

The data collected for the Office of the Privacy Commissioner of Canada (OPCC) spans across several years, and was the research I drew from for the data analysis. This data provides an exceptional insight into the public opinion of Canadians, and documents year’s worth of changing attitudes and opinions. I chose to focus on years 2014 and 2016 primarily as it provided for the most recent picture of how Canadians view these issues. I compared the results from particular survey questions to gauge what trends are prominent in the field.

For example, the 2016 Public Opinion states that “nearly three in four Canadians feel that they have less protection of their personal information in their daily life than they did ten years ago” (OPCC, 2016). This statement echoes the ones made in the 2014 Public Opinion Survey that Canadian’s felt that their ability to protect their personal privacy online was becoming obsolete (OPCC, 2014). Canadians who rated themselves more knowledgeable about privacy rights were more likely to express extreme concern for protection of personal privacy.
When questioned about their understanding of intelligence gathering activities in Canada, over half (56%) of respondents say they know not much or nothing at all about these practices. This is an increase of 9% in comparison with the results in 2014. Surprisingly, Canadian’s between the ages of 25 and 34 were more likely to answer that they knew nothing about intelligence gathering activities. Additionally, in the 2016 survey 64% of respondents noted that they didn’t have a good idea of what the Government of Canada did with the intelligence that they gathered. These attitudes are reflected in Figure 1:

Figure 1: Understanding of intelligence gathering activities in Canada, 2016. From 2016 Survey of Canadians on Privacy: Final report., prepared by Phoenix Strategic Perspectives Inc. for The Privacy Commissioner of Canada.
As outlined in the table below, despite not having a firm grasp about what is done with the intelligence collected from government surveillance, shockingly 59% in the 2016 survey indicate that they are only somewhat or not concerned at all about these practices. Of these respondents, it was citizens who were 55 and older who showed the most concern. The details can be viewed in Figure 2:

**Figure 2**

**Level of personal concern: government surveillance**

"Government monitoring of your activities for national security or public safety purposes."

Q. Finally, I’m going to read a list of privacy issues facing Canadians. For each one, please tell me how concerned you are personally using a scale of 1 to 7, where ‘1’ means not at all concerned, and ‘7’ means extremely concerned. How about...? Base: n=1,500

**Figure 2**: Level of personal concern: Government surveillance, 2016. From 2016 Survey of Canadians on Privacy: Final report., prepared by Phoenix Strategic Perspectives Inc. for The Privacy Commissioner of Canada.

Also of note was that 42% of respondents were very or somewhat comfortable with the collection of personal information through warrantless government requests to telecommunications companies as indicated by the 2014 Survey.
Discussion, Findings, Ethical Issues

In comparing the literature and the findings from the Public Opinion Surveys, I was surprised to note that Canadians in general were not as concerned as I anticipated them to be. As indicated by the literature, academics have expressed concern over the slow erosion of civil liberties in the interest of public safety and national security. Perhaps Canadian’s do not have an entirely well informed grasp of the subject, as indicated by the statistics above. Being well informed or feeling that one has a significant grasp on the subject is a subjective point of view as well, so it could be argued that these feelings of adequacy are perhaps misplaced.

In the findings, of interest is that in 2016 “half of Canadians [surveyed] agreed that intelligence gathering and law enforcement agencies do not have enough power to collect private information from citizens in support of national security and public safety” (OPCC, 2016). I found this statement contradictory to the literature, which often states that the expansion, intensification, and integration of surveillance measures by government and law enforcement may have too much power already (Haggerty & Ericson, 2000).

What a society doesn’t want is fear driving policy. The seemingly never ending fight against terrorism can serve as a major proponent that lends itself to a never ending excuse to spy on civilians personal lives (Bilton, 2013). Giving government the social authority to conduct this sort of cyber espionage has critics quick to reference these activities as being a step along the path to an Orwellian society. It is a high risk enterprise in which society is a major stakeholder, and should treat the responsibility as such.

An interesting topic of discussion is that there is seemingly no option to opt-out of hierarchical cyber surveillance should a person feel that it was unwanted. The two pillars of Canadian legislation in this area are the Privacy Act and the Personal Information Protection and Electronic Documents Act (PIPEDA). While these pieces of legislature appear to encompass a
broad range of privacy issues, agencies such as the Canadian Civil Liberties Association (CCLA) have challenged some of the provisions citing that the acts are unconstitutional, and have since challenged them in court (CCLA, 2016). The organization asserts that the rights to life, liberty and security of the person, and the right to be free from unreasonable search and seizure are not upheld within PIPEDA in particular (CCLA, 2016). The contrast between this literature and the 2016 Survey results pose a number of questions in which further research efforts should be directed.

**Ethics**

An ethical issue that may play a role in the data is that participants who answered the survey may have exaggerated their knowledge of surveillance techniques in an effort not to appear uninformed. Additionally, it is indicated that the survey was conducted via telephone, so this would reasonably only include individuals with landlines or cell phones, so citizens who may use computers and social media without a fixed phone number would be excluded. It is indicated that participants surveyed were between the ages of 16 and what was indicated to be ‘over 55’. Thus, data is unavailable from the young population who are no doubt familiar with using social media and the internet, who may be unaware of the full capacity of its monitoring.

It is not indicated whether the oral survey was offered in English, French, or any other languages. This may exclude a particular demographic of Canadians who do not speak fluently in one of Canada’s official languages. It would be of interest to conduct a random sample survey across Canada by mail to compare results with the data collected from the telephone survey. Alternatively, by offering more language options, expanding the age range, and conducting the surveys in a face-to-face interview environment the results could perhaps change.
Significance

The significance of the research study is that it shines a light on Canadian attitudes regarding cyber surveillance and the protection of their personal privacy. These attitudes were examined against the findings from academic and scholarly literature, to illuminate an apparent disconnect between citizens' levels of knowledge and concern and some of the problems that academics are predicting. Technology and the Internet are such powerful tools, often for positive purposes, but they can be weaponized for negative purposes as well. This body of work encompasses a brief snapshot of a much larger issue, and is intended to supply a level of basic knowledge about the subject. Due to the size and scope of the project, this research is subject to limitations, which are outlined below.

Limitations

Due to the time frame and scope of this project, the ability to address a number of supplementary topics was limited. Issues such as economics of personal information, scopophilia, intellectual property theft, ransomware, freedom of information, biometric data exploitation, and panopticism were not explored in the body of this paper. These and accompanying issues could each have their own research study, and serve to expand the topic of surveillance in a number of theoretical, philosophical, and practical ways.

Not all information gleaned from the Office of the Privacy Commissioner of Canada Public Survey’s was able to be utilized in this report. Extensive graphs, statistics, and qualitative reports are available and conducting an analysis on the entirety of information would far and away surpass the scope of this project. Additionally, copious amounts of data and literature from American sources can be found, and analysis between Canadian and American perspectives would be of interest to explore. This comparison extends beyond the reach of this report, but would yield intriguing results.
Tools and training currently being implemented into law enforcement agencies was not a topic that this research was able to address. The dynamics of how these agencies pursue individuals who do pose a threat to national security through the use of surveillance would be a project of interest, but invariably extends beyond the reach of this study.

**Recommendations**

Recommendations for research could include examining what particular areas Canadians would like to know more about their personal privacy and cyber surveillance. As discussed in the data analysis, there does not appear to be a strong foundational knowledge about what the current practices are and what is done with the information collected. Such research could illuminate the potential for programs and education to better inform the Canadian public, and thus allow them to make a more informed decision about issuing their consent when sharing personal information. Technology will continue to be embedded into the modern world, and the general population should take an active interest in learning to protect themselves from any harm that may come of it.

A key piece of this foundational knowledge is centered around the operational definition of privacy. As noted, there appears to be no consensus about what privacy legally means to Canadians, and without a clear definition it is difficult to proceed with additional research into appropriate legislation. It should be immediately apparent just what legislation and law enforcement aim to protect. Privacy continues to be a multidimensional concept, and policy makers should keep in mind that this definition may need to include a certain fluidity in order to allow it to expand and fit within future technologies. A reasonable expectation of privacy in reference to the use of technology needs to be established, in tandem with this operational definition of privacy, to ultimately provide a framework for future practices.
A final recommendation is focused around the issue of accountability. Cyber surveillance can be viewed as a response to a threat, but also as a threat itself. An objective, independent body needs to be established to ensure that Canadians have oversight over the use of this powerful tool. Technology is now omnipresent in our society, and governance over how it is used by investigative agencies should be recognized as a need, not an option. A best practices model needs to be formulated and adopted to combat unethical operations and to promote integrity and transparency.

**Conclusion**

Government will always have a role in managing its citizens, as does law enforcement in keeping them safe. It is the responsibility of these agencies who hold power to reasonably justify their actions to the public that they serve. In the context of privacy and cyber surveillance, compromising the population’s access to communication free of any interference should not be taken lightly. This type of surveillance has its merits, but exists on a continuum and can easily cross the line from useful to intrusive if individuals in leadership positions use it as such. This topic is not a black and white concept, and is worthy of further attention and analysis especially in the Canadian context. In summation, cyber surveillance can both help and hinder Canadians, and should be researched further to maximize the former and minimize the latter.
References


Surveillance & Society, 15(3/4), 557-566


