

Communicating with (Some) Canadians: Communication Rights and Government Online in Canada

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Abstract: A communication rights framework is used to evaluate recent government online initiatives in Canada. Through an analysis of policy documents, government websites, user experiences, and the existing and evolving computing environment, the authors argue that government online programs fail to adequately ensure the communication rights of Canadians who use free and open source software, including Canadians who seek alternatives to proprietary software, Canadians who require low-cost computing, and Canadians who access the Internet via public libraries and community centres that use free and open source software. Existing government programs also fail to ensure the communication rights of Canadians without access to the Internet, including Canadians who do not use or plan to use the Internet. The authors identify specific problem areas in the provision of government information, services, and consultations and suggest policy recommendations that address the identified shortcomings.

Keywords: Right to communicate; Communication rights; Policy; Citizenship; E-government; Technology assessment; Free and open source software; Internet adoption

Résumé : Dans cet article, les auteurs utilisent une perspective fondée sur le droit à la communication pour évaluer des initiatives en ligne de la part du gouvernement canadien. Au moyen de l'analyse de documents de politique générale, de sites gouvernementaux, d'expériences d'utilisateurs et de l'environnement informatique actuel dans son évolution constante, les auteurs soutiennent que les programmes gouvernementaux en ligne ne réussissent pas à protéger de manière adéquate les droits de communication des Canadiens qui utilisent des logiciels libres gratuits, y compris ceux qui désirent une alternative aux logiciels propriétaires, ceux qui dépendent de services informatiques à bas

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prix et ceux qui accèdent à Internet dans les bibliothèques et centres communautaires équipés de logiciels libres gratuits. En outre, les programmes gouvernementaux actuels sont incapables de protéger les droits de communication de ces Canadiens qui n'ont pas accès à Internet, c'est-à-dire ceux qui ne l'utilisent pas présentement ainsi que ceux qui n'ont pas l'intention de l'utiliser. Les auteurs identifient des problèmes spécifiques reliés à la fourniture d'informations, de services et de consultations de la part du gouvernement et recommandent des politiques qui s'adressent aux défauts identifiés.

Mots clés : Droit à la communication; Droits de communication; Politique; Citoyenneté; Administration en ligne; Prospective; Logiciels libres gratuits; Adoption d'Internet.

Introduction

In the fall of 1999, Canada's federal government announced that its goal was not only to become "a model user of information technology and the Internet," but also "to be known around the world as the government most connected to its citizens" (Canada, 1999). In April 2000, the Government On-Line (GOL) initiative was launched officially as a key undertaking in the government's strategy to deliver more information and services online. By 2006, the year of the initiative's completion, nearly \$1 billion had been allocated and spent on the project (Canada, 2006). Today, Canadians can access 130 of the most commonly used government services online in both English and French, and by almost all accounts, Canada's e-government initiatives have been recognized internationally as both innovative and successful (Accenture, 2005, 2007; Canada, 2006).

Similar to e-government undertakings abroad, the Government On-Line initiative was justified by the belief that the adoption of information and communication technologies (ICTs) by government would lead to improved and more efficient services. In addition, the initiative's more ambitious goal was to redefine government by "engaging citizens more fully in governance processes, not just at election time, but throughout the governance cycle that runs from policy formulation to program planning, service delivery, and performance evaluation" (Government On-Line Advisory Panel, 2003). The initiative thus attempted to move beyond service and information delivery toward using the Internet to engage citizens in the political process.

Graham Longford (2004) suggests that the rhetoric surrounding the Government On-Line initiative, with its focus on the redefinition and reinvigoration of citizenship, actually excludes other motivations that fuel e-government efforts in Canada. Longford points out that increasing investment in ICTs by the federal government preceded the Government On-Line initiative by at least a decade and represents not only attempts to foster the growth of Canada's ICT industry and the "information economy," but also neo-conservative policies aimed at labour reduction in the public sector. Given this broader context, any potential gains in service quality that can be attributed to e-government initiatives need to be considered against budget cuts in other areas that undermine the government's ability to actually provide these services.

Both Longford (2004) and Middleton & Sorensen (2005) draw attention to the federal government's increasing reliance on the Internet for the provision of information and services despite its failure to develop a comprehensive, long-term strategy to ensure that Canadians are guaranteed some form of basic access to the Internet in order to be able to make use of this information and service provision. Although some well-publicized government programs have come and gone, today there remain segments of the population that do not or cannot use the Internet. Moreover, Longford argues, computer and information literacy, government transparency, and the structure of government decision-making processes define the contours of e-government programs and the extent, if any, to which these programs may renew and reinvigorate democratic participation.

In a similar vein, Darin Barney (2005) is sceptical of the attribution of transformative powers to ICTs with respect to governance and decision-making. According to Barney, despite some well-publicized exceptions, much more government focus and attention has been devoted to the provision of information and services than to enabling direct citizen participation in decision-making processes. Although consultations continue to be conducted by various departments and agencies to some extent, research suggests that they are ad hoc, variable, and inconsistent in their approach (Barney, 2005). In addition, Barney points out that as was the case before the adoption of ICTs, the prerequisite questions and challenges are, in fact, non-technical: Are consultations public relations exercises or genuine attempts to consult with the public? Is the decision-making process inclusive and transparent? Are consultation outcomes actually responsive to participant input and deliberation?

Naomi Fraser (2007) suggests that the federal government is positioned within e-government discourses as a model provider of services that delivers maximum value through the adoption of ICTs. Given that the cost of an in-person transaction is significantly greater than that of an online transaction, the federal government continues to educate Canadians about the benefits of Internet services and actively encourages their use. The "model use" of ICTs by the federal government, Fraser argues, is not simply the provision of information and services via the Internet; "model use" promotes a narrow conception of government that privileges instantaneous access and service efficiency, suggests appropriate conduct for citizenship in the information age that is centred around ICTs, and constitutes a re-organization of relations between the state, citizens, and the economy during a time of technological and economic restructuring.

In line with these authors, we begin with the acknowledgment that access to the communication process, understood in the broadest sense, is a key measure of the extent to which government programs can be considered inclusive of different segments of society. Given this fundamental recognition, we utilize a communication rights perspective to assess Canada's e-government initiatives and the communication framework that these initiatives imply. The theoretical and conceptual framework elaborated in the first part of the article is used to assess Canada's federal e-government programs, a focus that occupies the remainder of the article. A multipart methodology, consisting of an analysis of policy documents, government websites, public consultations, and the results of a structured

questionnaire, along with an examination of research on Internet use in Canada and the evolving landscape of personal computing, is used to support the assertion that Canada's federal government has failed to guarantee the communication rights of certain segments of the population and for certain forms of communication. While important considerations have informed government policy decisions to date, specifically in terms of recognizing that a diverse population has diverse communication requirements, these considerations have not been extended uniformly to online and offline communication. To ensure that communication rights are at the core of both policies and practices that structure communication between citizens and the state, the article concludes with specific policy recommendations grounded in the identified problem areas. It is hoped that both the conceptual framework and the analysis will provide insight to similar government undertakings abroad, as well as to other levels of government, particularly at the provincial and municipal levels.

A right to communicate: Historical and conceptual overview

The concept of a "right to communicate" is typically traced and attributed to Jean d'Arcy (see, for example, Birdsall, 1998; Fisher, 2002; Hamelink, 2004), a French media professional who served as Director of Radio and Visual Services in the United Nations Office of Public Information in the 1960s. In 1969, d'Arcy published his now well-cited "Direct Broadcast Satellites and the Right to Communicate," in which he distinguished between information and communication and noted that the Universal Declaration of Human Rights was lacking in its treatment of communication: "The time will come when the Universal Declaration of Human Rights will have to encompass a more extensive right than man's right to information, first laid down twenty-one years ago in Article 19. This is the right of man to communicate" (d'Arcy, 1977, p. 1).

Article 19 of the Universal Declaration of Human Rights guarantees freedom of opinion, freedom of expression, and freedom of information, specifically the freedom to "seek, receive and impart information and ideas through any media and regardless of frontiers" (United Nations, 1948). At first glance, these freedoms seem adequate, but d'Arcy argued that they failed to account for the bidirectional, interactive nature of communication. That is, although one may be free to impart and receive information, according to d'Arcy, this freedom could be interpreted in a non-interactive sense and would not protect the sort of two-way communication facilitated by developments in telecommunication. It is important to note, however, that the Universal Declaration of Human Rights does include provisions¹ in addition to Article 19 that address the issue of communication in a broader sense, that is, less in terms of a transmission view of communication, and more in terms of a ritual view (Carey, 1989) that foregrounds association, community, and culture.

Although both the International Bill of Human Rights and the Canadian Charter of Rights and Freedoms (Canada, 1982) include important freedoms that pertain to communication rights, neither one defines a "right to communicate" as a distinct and separate human right in the spirit suggested by d'Arcy. As William Birdsall (1998) points out, the need for a right to communicate was acknowledged at a national level by Canada's Telecommission, which was formed in 1969

to assess the state of telecommunications and related policy in Canada. The Telecommission's recognition of the concept marked the next significant milestone, after d'Arcy's influential articles, in the conceptualization of a right to communicate (Fisher, 1982; Harms, Richstad, & Kie, 1977).

The Telecommission directed over 40 studies, organized multiple conferences and seminars, and sought input from industry representatives, federal and provincial government officials, and academic experts from disciplines ranging from computer science and engineering to sociology, anthropology, education, and urban studies. The Telecommission's report, "Instant World," was published in 1971 in an effort to summarize the Telecommission's activities and findings. The right to communicate is situated in the report as a concept that received wide acceptance from participants:

[T]he predominant theme underlying nearly all the discussions at the seminars was that the "right to communicate" should be regarded as a basic human right. In the impending age of total communications, the rights of assembly and free speech may no longer suffice. . . . The basic decisions that govern the development of communications systems are political; therefore, if all Canadians are to be provided with the minimum services needed for the exercise of a "right to communicate," political decisions and money will be required. (Canada, 1971, pp. 38-39)

The final chapter of the report reaffirms the centrality of a right to communicate to many of the Telecommission's studies and seminars:

Equitably available communications are so fundamental to democracy that, time and again, participants in the Telecommission studies called for recognition of a "right to communicate" as a fundamental objective of Canadian society. The subject dominated the seminars and conferences, and was raised in many of the individual studies. The accent is always on access. (Canada, 1971, p. 232)

There are several important dimensions of a right to communicate foregrounded in the statements above. First, the right to communicate is conceived as a fundamental human right, and it is suggested that the existing human rights framework may not protect this right adequately. Second, the right to communicate is linked to political participation and is situated as a right that is fundamental to democracy. And lastly, the right to communicate is contextualized in practice: its effective exercise requires political commitments, resources, and access to the means of communication.

Jean d'Arcy acknowledged the influence of the Telecommission and referred to "Instant World" in his subsequent writings (Birdsall, 1998). His advocacy for a right to communicate continued until the end of his life and included participation in the New World Information Order/New World Information and Communication Order (NWIO/NWICO) debates in the late 1970s and early 1980s. During this time, the right to communicate continued to signify a human right intended to protect communication as interaction; however, the concept also came increasingly to encompass international information flows and their relation to national and cultural sovereignty as postcolonial and developing nations

articulated their demands within the institutional framework of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Although advocates continued to work in local contexts and push for changes both within and outside of the United Nations framework, the right to communicate did not return to the centre of the international stage until the World Summit on the Information Society (WSIS) in 2003. Many of the issues and problems that gave rise to the NWICO debates persisted at the WSIS; however, some important features distinguish the WSIS from the earlier NWICO debates. First, the WSIS was initiated by the International Telecommunication Union (ITU) within a narrow development framework that foregrounded provision of and access to ICTs. Secondly, and of equal importance, issues relating to communication rights, media concentration, and intellectual property were advocated primarily by civil society as opposed to nation-states (Raboy & Landry, 2003).

Communication rights, citizenship, and the state

In the national context, we can identify two important and related aspects in the relationship between communication rights and the state. The first dimension pertains to the state's recognition of and general support for communication rights in society. The second dimension is narrower in scope and pertains to the state's support for communication rights in the particular context of communication between citizens and the state. To appreciate both of these dimensions, we can consider communication rights in relation to their underlying freedoms and entitlements, an approach advocated by Fisher (1982).

In this hierarchical conception, we can distinguish between the right to communicate as a general human right, specific communication rights that can be defined and acted upon, and the freedoms and entitlements necessary to the exercise of these specific rights. In the case of recognition of a right to communicate as a general human right, the state must acknowledge that communication is a fundamental human need and, as such, a fundamental human right. This acknowledgment must be made if the right is to be codified in law. At the same time, this acknowledgment can guide interpretation of existing law and contribute to a set of principles for communication regulation and policy (Birdsall, McIver, Jr., & Rasmussen, n.d.).

With respect to specific communication rights that can be defined and acted upon, the MacBride Commission is particularly instructive. It identifies the individual's right to know, impart, and discuss as key communication rights:

- (a) The right to know: to be given, and to seek out in such ways as he may choose, the information that he desires, especially when it affects his life and work and the decisions he may have to take, on his own account or as a member of the community. Whenever information is deliberately withheld, or when false or distorted information is spread, this right is infringed.
- (b) The right to impart: to give to others the truth as he sees it about his living conditions, his aspirations, his needs and grievances. Whenever he is silenced by intimidation or punishment, or denied access to the channels of communication, this right is infringed.

(c) The right to discuss: communication should be an open-ended process of response, reflection and debate. This right secures genuine agreement on collective action, and enables the individual to influence decisions made by those in authority. (International Commission for the Study of Communication Problems, 1980, p. 113)

Only the right to discuss mentions governance and decision-making directly, but the rights to know and to impart are also clearly important in this regard, both on their own terms and as necessary preconditions for the right to discuss. In addition, the right to discuss highlights that communication is something more than the sum of the expressions of many individuals with private needs and interests; in its fuller sense, it involves collective deliberation over the common good and is the basis for collective action.

If we understand communication rights in terms of the rights to know, impart, and discuss, certain freedoms derive from this conception and, in turn, certain entitlements become necessary for the exercise of these freedoms. More specifically, the rights to know, impart, and discuss require freedoms such as freedom of opinion, freedom of information, and freedom of expression. In turn, these freedoms require entitlements such as access to communication processes, education, and access to information sources.

Although at first glance communication rights, freedoms, and entitlements seem very similar, there are important differences that distinguish the three terms (Fisher, 1982). A “right” can be understood as a norm that must be adhered to without any qualifications or deviations. In contradistinction, a “freedom” may not only be limited, but its exercise is optional and at the discretion of the subject. Lastly, an “entitlement” refers to a set of conditions that must be satisfied if a subject is to be able to exercise a particular freedom. The responsibility of the state is to acknowledge and affirm rights, refrain from hindering the exercise of freedoms, and provide the necessary conditions and entitlements for their exercise.

In this hierarchical conception, communication rights include both “negative” and “positive” dimensions. Communication freedoms cannot be restricted arbitrarily by the state, and they require simultaneously that the state ensure the conditions necessary for their exercise. Historically, proponents of civil and political rights opposed to social rights have argued that civil and political rights may be obtained at a minimal burden and require only a “negative” duty from others, including the state, which must simply refrain from interfering with rights-holders. In contrast, it is argued, social rights impose unreasonable costs, since they require a “positive” duty from others, including the state, which must provide or do something for the rights-holder. Upon closer examination, however, this either/or dichotomy has been shown to be untenable, since social, civil, and political rights involve substantial costs and a mix of “negative” and “positive” duties².

While it may be the case that modern civil, political, and social rights have been expanding progressively in Western societies, this progression has always been partial and simultaneously inclusive of some social groups and exclusive of others, cutting across class, race, and gender (Bottomore, 1992; Macpherson, 1977; Marshall, 1975; 1992). In addition, in societies where civil, political, and

social rights are well established, this establishment does not imply that rights are realized adequately in practice or that their translation into state policies and programs is satisfactory (Bottomore, 1992). To the extent that communication rights protect and enable the communication of life experiences, conditions, and inequalities, they are not only a prerequisite to collective deliberation and to ensuring that the state is responsive to the needs of citizens in a general sense, but necessary to the pursuit of social justice and to the effective realization of civil, political, and social rights in practice.

Communication rights are necessary to citizenship and democracy, but they are clearly insufficient in and of themselves. Even entitlements such as access to information and access to the communication process, for example, cannot remedy a lack of political will or unrepresentative policy outcomes. To be effective, communication rights require a state that is both receptive to and, when necessary, responsive to citizen participation. Institutionally, inclusion and receptiveness will have limits, as the boundary between those who govern and those who are governed is maintained, reproduced, and at times renegotiated. In addition, within capitalist, liberal-democratic societies, the state must mediate a wide array of class, national, and increasingly transnational interests and pressures—mediation that will limit and bias available state options and actions. As Saskia Sassen (2007) argues, if we understand the state as both responding to and constitutive of economic globalization, this participation “may raise the power of some state entities—for instance, central banks and ministries of finance—even as it sharply reduces the power of others, such as the welfare system” (p. 76).

On the other side, communication rights imply specific duties for citizenship. The right to know requires that one “seek out”; the right to impart, that one “give to others the truth as he sees it”; and the right to discuss, that one take part in “response, reflection and debate.” While citizens are not required to exercise their communication freedoms, the implication is that they will do so when the issues and circumstances at stake affect their life, well-being, and community. In Western societies, these duties and their effective realization will depend not only on individual differences, more widely held beliefs and attitudes about political involvement, and the pull toward absorptive consumerism and away from other forms of participation, but are also structured by class, race, and gender, among other things, the contours of which are influenced directly by the state and economic and social policies. Labour insecurity, intensification of the working day, and inadequate childcare, for example, are likely to draw time and energy toward immediate material concerns and away from other, seemingly more distant, duties.

The question of whether efforts should be directed toward international law or toward securing the conditions necessary for the exercise of communication rights has persisted since at least some of the earliest international meetings and discussions sponsored by UNESCO three decades ago³. In the Canadian context, Birdsall, McIver, Jr., & Rasmussen (n.d.) suggest that communication rights may be secured in a number of ways, including legal approaches such as constitutional amendment, legislative charter, and judicial interpretation, as well as policy approaches that adopt a communication rights framework to guide the

formulation of public policies. The analysis and research that follow are an attempt to utilize a communication rights framework to examine policies and decisions related to Canada's e-government programs and initiatives. The purpose of the analysis is twofold: first, to identify some of the important shortcomings of these initiatives from the perspective of communication rights, and second, to highlight the value of a communication rights framework for future policy formulation underpinning both federal initiatives and similar provincial and municipal undertakings.

Diversity, accessibility, and standards

An analysis of the reports published by the Government On-Line Advisory Panel reveals that in addition to identifying and addressing the unmet needs of Canadians, the Government On-Line Advisory Panel advocates that services be provided using various means to ensure that the communication needs of all Canadians are met:

Complicating the demand scenario are the various rates of adoption of new media, such as the Internet, based on distinctions such as age, capacity, income, and geographical location. The government must be in a position to provide service to all of its clients in a fair and effective manner. (Government On-Line Advisory Panel, 2002)

Although the recommendations are not guided by an explicit mention of communication rights per se, the guiding principles are similar in spirit: government services should be provided to everyone in a fair manner, regardless of age, income, location, or technical capacity. The consequence for the federal government is that it will need to continue to maintain "multiple channels" of communication for its services, including mail, telephone, in person, and the Internet.

Online accessibility is addressed primarily by the *Common Look and Feel Standards for the Internet* (CLF) published by the Treasury Board of Canada. In addition to describing common design features and requirements that must be adhered to by federal websites, the CLF outlines accessibility standards to ensure that federal websites may be accessed by people with disabilities who make use of text readers, audio players, and voice-activated devices to access content on the Internet (Treasury Board of Canada Secretariat, 2008). Although departments may publish content using less accessible standards, the CLF requires that the most accessible standards⁴ always be selected as the first choice (Treasury Board of Canada Secretariat, 2008).

At first glance, the CLF guidelines seem not only adequate, but also complete, since they require the use and prioritization of accessible standards. While seemingly straightforward in principle, however, the extent to which something is "most accessible" becomes subject to interpretation and variation in practice. Although they stipulate accessibility considerations for people with disabilities, the CLF guidelines are ambiguous with respect to free and open source software. This ambiguity implies that Canadians who select or must use free and open source software are not guaranteed the same entitlements as other Canadians and are not always able to exercise their communication freedoms in their communication with the government.

Free and open source software and low-cost computing

Although most free and open source software is freely available for anyone to use, the term “free” in this case actually refers to “freedom,” that is, the freedom of users to modify, use, and distribute the software according to their requirements and needs. Historically, free and open source software has been used primarily by computer enthusiasts, including hobby users interested in computing and users who believe that society benefits if software is transparent and can be defined and redefined by the people who use it. Free and open source software continues to attract these user communities, but in recent years it has also become increasingly popular with computer users who prefer it simply as a matter of cost or choice relative to available alternatives. For example, the free and open source Mozilla Firefox Web browser is generally judged by its users to be more secure, to be easier to use, or to have better features when compared with other Web browsers.

Today, the free and open source GNU/Linux operating system is increasingly available on traditional desktop and laptop systems distributed in Canada by mainstream retailers such as Dell (Dell, 2008b). Computer manufacturers have also started using GNU/Linux for low-cost, ultra-portable “network notebooks,” or “netbooks”: small, lightweight laptops with Internet connectivity. In 2008, for example, Asus, Acer, and Dell released netbooks pre-installed with GNU/Linux that sell in Canada for approximately CDN\$290, CDN\$330, and CDN\$360, respectively (Dell, 2008a; Future Shop, 2008; NCIX, 2008). In each case, computer users have the choice between a low-cost GNU/Linux option and a more expensive model with Microsoft Windows. To ease use, most GNU/Linux netbooks include a simplified user interface similar to that found on mobile phones: a matrix of large icons is used to organize applications and functions. A recent industry report published by Gartner predicts that worldwide netbook ownership will exceed 50 million units by 2012 and that netbooks will continue to be purchased by both beginners and more experienced users (Kunert, 2008; Toto, 2008). Recent sales figures from Dell, one of the largest computer retailers in North America, indicate that approximately one-third of all Dell netbooks sold to date have in fact been GNU/Linux netbooks (Stern, 2009).

In addition to these changes in the consumer electronics market, community groups and organizations that recycle and refurbish used computers often install and distribute GNU/Linux with their computer systems. For example, non-profit organizations such as Free Geek in Vancouver collect used computers and refurbish them through volunteer-to-own programs that enable community members to exchange volunteer time for a working computer system. All of the computers that Free Geek refurbishes include GNU/Linux (Free Geek, 2008a). People who are unable or unwilling to volunteer can also purchase a refurbished computer system with GNU/Linux for as little as CDN\$40 (Free Geek, 2008b).

In a similar way, the federally funded Community Access Program (CAP), which supports community-run Internet access points across Canada and includes over 100 CAP sites in British Columbia alone (Vancouver Community Network, 2007), includes sites that use GNU/Linux and free and open source software for their public computer terminals, as do some non-profit community Internet access sites not funded through the CAP program. Visitor data from CAP sites in

British Columbia indicates that users include senior citizens, recent immigrants, and Aboriginal people, as well as the unemployed, the homeless, people facing literacy challenges, and people with disabilities and mental health issues (Vancouver Community Network, 2007).

Likewise, there are public libraries in Canada that use GNU/Linux and free and open source software for their Internet workstations and terminals. In BC's Lower Mainland, for example, the Coquitlam Public Library cites reduced costs associated with the acquisition and maintenance of software as an important factor in the adoption of GNU/Linux for its public Internet terminals (Peters, 2004). Some libraries, such as the Vancouver Public Library, provide Microsoft Windows workstations for library patrons, but install the freely available open source OpenOffice rather than Microsoft Office (Vancouver Public Library, 2008). As with community-run Internet access centres, public libraries provide some Canadians with access to a computer and the Internet, as well as the support necessary to be able to use them.

In sum, GNU/Linux is not only used by Canadians who prefer free and open source software and users who are opposed ethically to proprietary software, but also by individuals, households, community centres, and public libraries in Canada, whose cost of computing is lowered through the use of GNU/Linux and free and open source software. Any government initiative that purports to support communication with a diverse population of users with unique needs, across income, age, location, and technical capacity, must be capable of supporting users who select or must use GNU/Linux and free and open source software for their Internet communication. Despite this requirement, existing policies in Canada do not adequately address the communication needs and rights of these Canadians.

Questionnaire: Focus, method, and results

To explore the nature and impact of the federal government's policy framework on Canadians who use free and open source software, we conducted an online questionnaire to gauge Canadians' experiences with government information, services, and communication online. The questionnaire was made available online in two phases: from September 2006 to the end of November 2006 and from February 2007 to the end of April 2007. Since the primary goal of the questionnaire was to solicit detailed feedback from Canadians who ideally had some experience with both government online programs and free and open source software, and some of whom had lower incomes, no attempt was made to draw a statistically random sample of respondents. Instead, several concurrent methods were used to solicit input and participation:

Paper posters were distributed in several Vancouver neighbourhoods using both indoor (e.g., public library) and outdoor public posting boards.

An email was sent to the Canadian Communication Association mailing list asking list members to pass along details of the study to colleagues and students.

A link was posted on the Vancouver Community Network (VCN) website. Like other freenets, VCN provides free Internet access and services to individuals and community groups.

An email was sent to each freenet in Canada that had a public website. In each case, the contact person was asked to inform local users of the study.

An email was sent to the Community Access Program mailing list for CAP site managers.

Since participants were not selected using a random method, the resulting sample of respondents cannot be interpreted as statistically representative of Canadians, nor of Canadians who have used government online information and services, nor of free and open source software users in Canada. Based on the study design and description made available to potential respondents, the respondent sample is expected to include a disproportionate number of individuals with an interest in and experience with government online programs.

Since the questionnaire could have been completed by anyone with knowledge of the project website, an additional telephone follow-up was necessary to ensure that questionnaires were in fact completed by Canadians and representative of their experiences and opinions. At the completion of the study, 138 questionnaires had been filled out online. Of these, 78 could be confirmed positively via a follow-up telephone call in the summer of 2007. The remaining questionnaires could not be confirmed for a variety of reasons: the telephone number was not in service; a respondent had failed to provide a name on the informed consent form; a respondent had moved to a new residence; a respondent did not recall participating in the research study; or a respondent was simply unavailable. In the latter case, multiple attempts were made to contact each participant.

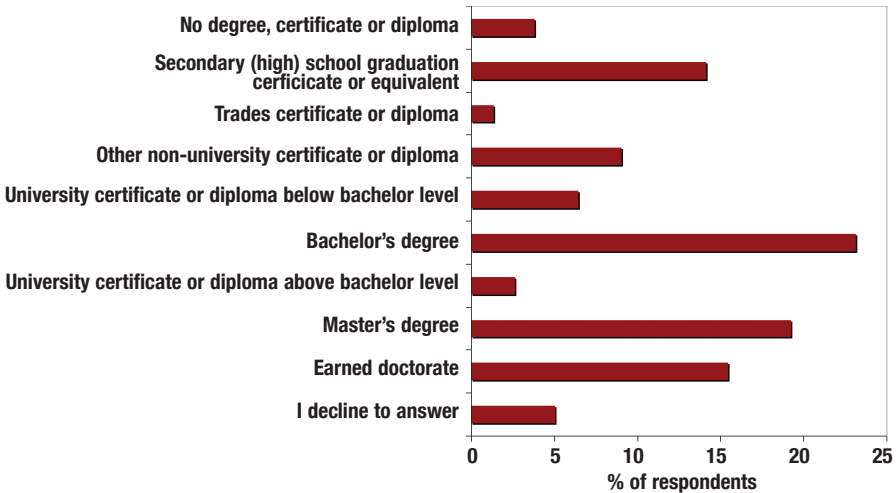
Demographics, Internet use, and computing environment

Almost twice as many men (64%) as women completed the online questionnaire. In terms of age, respondents were relatively evenly distributed, although there were more young respondents, 18 to 29 years of age (31%), than older respondents, 60 to 79 years of age (12%). Most respondents (57%) were between 30 and 59 years of age. Respondents participated from all provinces and territories with the exception of Saskatchewan and Manitoba. Most respondents (67%), however, were from either Ontario or Québec.

As shown in Figure 1, approximately one third of respondents (32%) had attained a certificate or diploma below a university bachelor level, including the completion of high school, as their highest educational attainment. Less than one third of respondents (27%) were university graduates with either a bachelor's degree or some form of certificate above the bachelor level. A little over one third of respondents (36%) were university graduates with either a Master's degree or an earned doctorate.

One third of respondents (33%) reported a personal annual income before taxes and deductions of less than \$30,000 (see Figure 2). Of these respondents, the majority (57%) reported an annual income of \$10,000 to \$19,999. More than one third of respondents (38%) reported a personal annual income of \$30,000 to \$69,999. A little less than one third of respondents (30%) indicated a personal annual income in excess of \$70,000. Almost one fifth of respondents (18%), however, did not provide an estimate of their personal annual income.

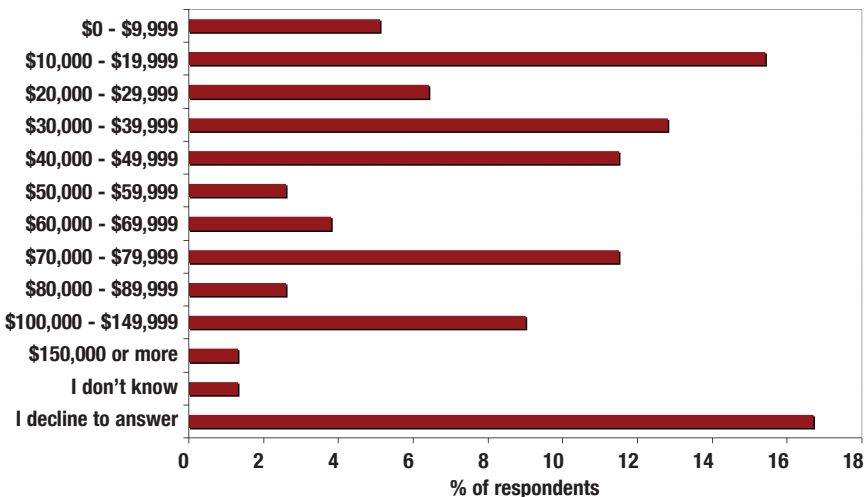
Figure 1: Educational attainment: highest degree, certificate, or diploma (n=78)



When asked about total household income before taxes and deductions, half of all households (50%) fell into the middle and upper income categories, with a household income of \$40,000 to \$99,999. A total of 12% of respondents reported an annual household income of less than \$30,000. When compared with personal incomes, the reported household incomes rose most noticeably for high incomes, commensurate with the higher-than-average reported educational attainment of respondents. It should be noted, however, that nearly one quarter (23%) of respondents did not provide an annual household income.

Given that a random sampling method was not used to solicit participation in the study, the socioeconomic characteristics of respondents should be interpreted

Figure 2: Personal annual income before taxes and deductions (n=78)



with caution. Compared with those who decided not to participate in the research, individuals with more education or more interest in government online programs are likely to have been more motivated to participate in the study. Research undertaken by Underhill & Ladds (2007), an analysis of the 2005 Canadian Internet Use Survey data, suggests that Canadians with greater education, higher income, and more Internet experience are in fact more likely to use the Internet to search for government information or to communicate with government than Canadians with less Internet experience, education, or income.

The large majority of respondents (95%) who completed our questionnaire were in fact long-time Internet users, having used the Internet for five or more years. Nearly all respondents (91%) used the Internet at least once a day. Of the respondents who did not access the Internet daily, most (71%) indicated that they nonetheless used the Internet at least once a week. Other than using the Internet from home, 38% of respondents reported using the Internet from a public library, 35% reported using the Internet from an Internet café, and 24% reported that in the past year they had accessed the Internet from a government office, department, or kiosk, including CAP sites.

For their primary household computer operating system, most respondents (50%) indicated that they used Microsoft Windows (see Figure 3). The remaining respondents used either Unix/Linux (31%) or Mac/Apple (14%). Half of respondents (52%) indicated that they used Microsoft Office as their primary office software suite. Most others (43%) indicated that they used the freely available and open source OpenOffice. When asked about the affordability of commercial office suite software, most respondents (59%) indicated that they could not afford to purchase a commercial office suite if it was not provided as part of their computer system or could not be obtained at no additional cost.

Half of all respondents (51%) indicated that they used Mozilla Firefox, the free and open source Web browser (see Figure 4). The remaining respondents

Figure 3: Operating system use (n=78)

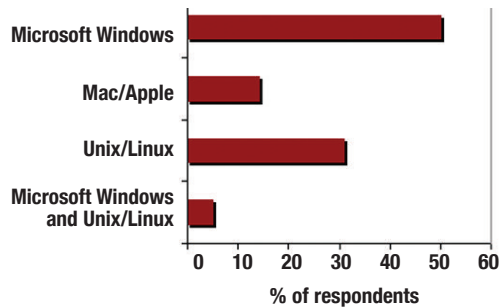
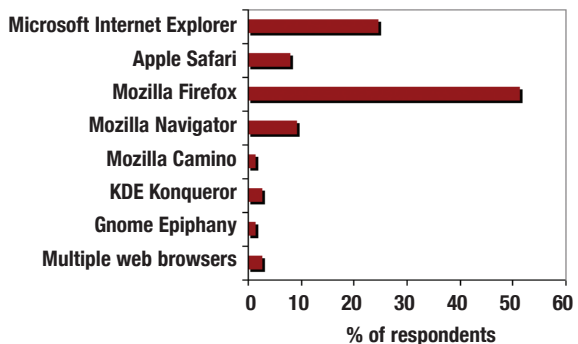


Figure 4: Web browser use (n=78)

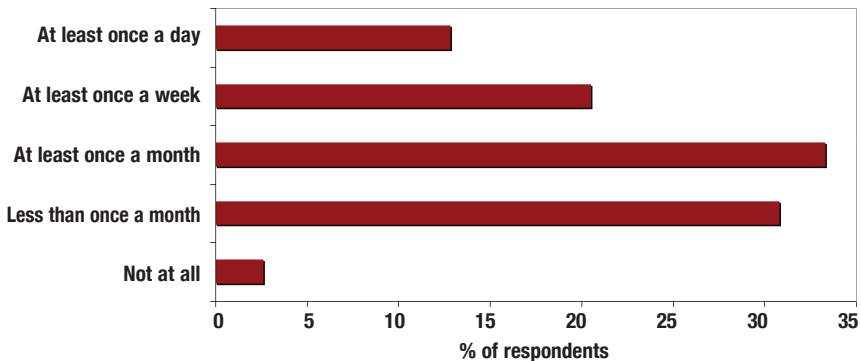


were divided primarily between Microsoft Internet Explorer (24%), Mozilla Navigator (9%), and Apple Safari (8%). When grouped together, the majority of respondents (65%) indicated a preference for free and open source Web browsers.

Government online use

The majority of respondents (67%) reported that in the past year they had searched at least once a month for information about Canadian municipal, provincial, or federal government programs or services (see Figure 5). In addition, well over one third of all respondents (43%) indicated that they had communicated with a government department or employee via the Internet in the past year. Likewise, one third of respondents (32%) had used the Internet in the past year to communicate with an elected official.

Figure 5: Frequency of Internet use to search for government information (n=78)



Half of all respondents (51%) indicated that they had used the Internet in the past year to express an opinion related to Canadian government policies, laws, causes, or issues that they felt were important. Of respondents (n=66) who had used the Internet to obtain information about or communicate with government, 60% had done so at the municipal level, 76% at the provincial level, and 97% at the federal level.

Government online and accessibility

When asked about the accessibility of online government information and services, the large majority of respondents indicated that online government information and services should be accessible regardless of home Internet connection method (87%), operating system (81%), or Web browser (74%). Respondents indicated that online government information and services should be available to all Canadians, regardless of income or personal preferences. Among the responses were the following comments:

“Such services should be universally accessible by all means, both for reasons of equity and convenience.”

“To provide the widest possible access, regardless of choice of (or ability to afford) a specific operating system.”

“Access should be inclusive. Standards exist to allow more complete access by all web browsers.”

In a similar way, when asked about the software requirements that government should impose on users, the majority of respondents indicated that access to online government information and services should only require software that is already installed with the operating system (59%) or, if this is not possible, can be obtained free of charge (89%). Respondents cited issues of accessibility, financial burden, and standards compliance:

“Financial status should not be an impediment to accessing taxpayer funded services.”

“Access to government services should be freely available to all citizens. If specific software programs are required other than the freely available programs, then they should be made available through the governmentn [*sic*] website.”

“The important thing is to not force people into proprietary handcuffs. Freely available standards is [*sic*] what government programs should be compatible with.”

Evaluating accessibility

The proportion of the questionnaire respondents who reported using free and open source software—that is, Unix/Linux (31%), OpenOffice (43%), and Mozilla Firefox (51%)—was much higher than the proportion of users who use free and open source software worldwide. For example, one in five North Americans (21.7%) and a little over one in four Europeans (28.8%) use the Mozilla Firefox Web browser (XiTi Monitor, 2008). In addition, 85% of respondents indicated that they had used the Internet to obtain information about or to communicate with government, and 97% of these respondents had done so at the federal level. Together, these indicators suggest that the sample of respondents was well suited to the goals of our research: it included Canadians who use free and open source software and who have some experience with government online programs in Canada.

The large majority of respondents indicated that online government information and services should be accessible to all Canadians, regardless of their computing platform. A common thread across several responses was that users should have the freedom to select communication technologies that best meet their needs. In this respect, existing Government On-Line policies and guidelines echo this sentiment: multiple communication channels *should* support both computer users and non-users; websites *should* use best practices that guarantee accessibility, especially for users with disabilities. In practice, however, Canadians who used free and open source software reported that their accessibility needs were not met:

“Web sites are usually slow. Information often difficult to understand. Too often it is expected that I am using some Microsoft product. . . .”

“It is insane to keep government websites only accessible for those with high-speed connection and Windows XP running Internet Explorer.”

“Most websites work well, but there are some that require non-standard software or file formats to interact. The first version of the Census website was an example (Still no public information released on security), sites to file for security status, information on the CRTC website in non-standard file formats, etc.”

Problem areas and policy recommendations

Although the federal *Common Look and Feel Standards for the Internet* is a step in the right direction with respect to accessibility considerations, the Treasury Board’s ambiguous position on free and open source software has resulted in government websites that fail to support the needs of Canadians who select or must use free and open source software. Three examples illustrate some common problems.

To begin with, consider the example of the prime minister’s website (www.pm.gc.ca), which includes both audio and video of the prime minister’s announcements and speeches. Unfortunately, both the audio and the video use proprietary standards to make content available to users. In this specific case, Adobe’s popular Flash technology is used throughout the site. Despite the fact that non-proprietary audio and video standards exist⁵ and free software tools are available for using these standards, the prime minister’s website does not provide users with the choice to use these alternatives.

In the case of Flash technology, Adobe actually makes freely available the software necessary for accessing Flash content with GNU/Linux. However, reliance on this availability is problematic for at least three reasons. First, some GNU/Linux distributions exclude proprietary software for practical and/or philosophical reasons. Secondly, currently available non-proprietary software⁶ that attempts to work with Flash is not fully compatible with the latest version of the Adobe software. In fact, recent versions of Adobe’s Flash include new technology⁷ that must be licensed for use explicitly, a requirement that will prohibit non-proprietary alternatives from ever being fully compatible with Adobe’s software. Lastly, and perhaps most importantly, although Adobe currently provides a freely available version of its software for GNU/Linux users, there is no guarantee that it will continue to do so in the future. For example, another popular Adobe technology, the Shockwave media player, is not supported on GNU/Linux at all (Adobe, 2008).

Reliance on Adobe’s Flash technology is by no means limited to the prime minister’s website. Many federal websites provide Canadians with audio and video content that is presented either on its own or as a supplement to other, text-based content.

As a second example, consider the public consultation process headed by the Telecommunications Policy Review Panel, established by the minister of industry in 2005 to conduct a review of Canada’s telecommunications framework (www.telecomreview.ca). The panel neither required that stakeholders use accessible file formats for their submissions nor provided the necessary infrastructure to ensure that submissions were accessible. Instead, some submissions were published online using proprietary file formats, such as Microsoft’s Word file format, whereas others were published using open file formats, such as the commonly used Portable Document Format (PDF). Rather than ensuring accessibility, an

explanation at the top of the page informs readers: "Information from external sources is available only in the language and format in which it was provided" (Industry Canada, 2005a; 2005b).

As with audio and video file formats, one of the main problems with digital documents is compatibility. In order to use Microsoft's Word or Excel formats, for example, a user must have installed either Microsoft Office software or the freely available Word or Excel viewer software, which is provided at no cost by Microsoft and enables users to view Word and Excel files, but not edit them (Microsoft, 2008b; 2008c;). Unfortunately, neither of these two options is suitable for Canadians who select or must use GNU/Linux as their operating system, since neither Microsoft Office nor the freely available viewers are available for GNU/Linux (Microsoft, 2008a; 2008b; 2008c).

The only alternative for Canadians who use GNU/Linux is to attempt to access the proprietary file formats using free and open source software, such as the freely available OpenOffice. Although OpenOffice purports some compatibility with Microsoft's proprietary file formats (OpenOffice, 2008b), the software documentation indicates clearly that this compatibility is only partial, since "some layout features and formatting attributes in more complex Microsoft Office documents are handled differently in OpenOffice or are unsupported" (OpenOffice, 2008a). Consequently, the ability of Canadians who use free and open source software to read proprietary document formats is subject to the nature and complexity of the documents, a scenario that is clearly unacceptable for the provision of content online. This includes both documents submitted as part of public consultations and documents authored and published by the government.

As a final example, consider some of the issues surrounding the 2006 Census of Canada. For the first time in the history of the Census, Canadians were given the opportunity to complete their census information online; however, Canadians who use GNU/Linux quickly realized that the online system did not work with their computers. Many of these users complained, and Statistics Canada made some modifications to its online system to ensure compatibility with GNU/Linux (Statistics Canada, 2006). Despite the generally positive and timely response by Statistics Canada, this example is noteworthy because it indicates that from the outset Canadians who use GNU/Linux were not considered in the design of the online system.

These examples were selected and detailed to highlight the extent to which existing federal government policies and systems exclude certain segments of the Canadian population, as well as to foreground specific problem areas, namely, the handling of multimedia, digital documents, and advanced online applications, that are accounted for either insufficiently or ambiguously by the federal *Common Look and Feel Standards for the Internet*. In the case of online audio and video content, the existing CLF does not require the use of open standards that are supported widely on all computing platforms. Such a requirement would ensure that Canadians who select or must use free and open source software are able to access the same content online as Canadians who use proprietary software. Such an amendment to the CLF does not need to preclude the use of exist-

ing formats, so much as affirm the need to provide non-proprietary alternatives in addition to existing formats.

Similarly, the fact that it is possible for a government department, agency, or special panel to sidestep the issue of accessibility and communication rights by either not providing accessible file formats for digital documents or shifting this responsibility to the public is clearly unacceptable. Government departments that publish content online must address the issue of interoperability and ensure that documents can be accessed by all Canadians, including Canadians who select or must use free and open source software for their Internet communication. As with audio and video content, this implies that the CLF needs to be amended to require that government departments use open file formats consistently for the online publication of digital documents. Again, this amendment does not necessarily need to preclude the use of other file formats, so much as require that departments that publish documents online always provide an open format option that is supported widely on all computing platforms.

Although public submissions are not authored by the government, they are submitted and published as part of a process that is organized and structured by the government. It is the responsibility of the government to ensure that the process is designed and implemented in such a way as to guarantee the communication rights of all Canadians. To this end, the CLF will need to be amended to address explicitly the issue of public submissions and their publication. It could be required, for example, that federal departments convert documents submitted by the public to open formats prior to online publication. Alternatively, the CLF could be amended to require the use of generic Web forms to collect information from the public. This way, federal agencies and departments would not collect submission files at all, but instead would provide the public with widely used and well-understood Web forms that are compatible with all Web browsers.

Lastly, as the federal government moves from publishing content and requesting input to increasingly complex and interactive applications that make demands on users in terms of hardware and software, special care will need to be taken to ensure that the communication rights of all Canadians are guaranteed. As the example of the 2006 census illustrates, the design of online applications requires that the needs of Canadians who select or must use free and open source software be taken into account. This consideration, however, will need to take place at the outset, during specification and design, not after the fact, when the system is already deployed and in use. Again, the CLF does not address free and open source software compatibility in this regard and will need to be amended to ensure that interactive online applications are available to all Canadians, regardless of their computing platform.

Consulting with (some) Canadians—and others?

In addition to important shortcomings in terms of accessibility online, existing public consultation approaches exhibit deeper problems with respect to communication rights. Specifically, the acknowledgment that different segments of the population have different communication needs and preferences, recognized to some extent in the provision of government information and services via multiple “channels,” is noticeably absent in the context of public consultations.

Although Canadians are able to receive government services in person, by mail, or via the telephone or Internet, some public consultations are conducted exclusively online.

For example, consider the national public consultation conducted by Health Canada regarding the regulation of natural health products⁸. Despite Health Canada's attempts to consult the public, the consultation process appears to exclude everyone who does not have access to the Internet or who does not use the Internet. This social exclusion is not limited to Health Canada. As demonstrated by the "Consulting with Canadians" website (www.consultingcanadians.gc.ca), while some consultations are conducted using a mix of communication methods, others are conducted exclusively online.

Given the pervasiveness of the Internet in Canada, it is tempting to dismiss people without Internet access as either a minor or temporary phenomenon that will pass with time and increased Internet adoption. There are good indicators, however, that suggest that this is not the case. Upon reviewing Statistics Canada's Internet adoption and use data, Middleton & Sorensen (2005) conclude that although the number of Internet non-users has declined over the years, cost remains an important barrier for non-users. Of equal importance, a significant proportion of Internet non-users continue to not use the Internet because they do not have any need for it or any interest in using it (Middleton & Sorensen, 2005).

Existing implementations of online consultations raise additional questions concerning representation. If a public consultation enables Canadians to complete an online workbook or provide comments anonymously, it is not clear how such a consultation is necessarily limited to Canadians or how particular interest groups, inside and outside of Canada, are prevented from abusing such a system. With respect to privacy, anonymous online submissions seem like an ideal solution, but considered in terms of representation, these approaches are less than ideal. Together, these problems raise serious questions regarding the legitimacy of some public consultations: Who exactly do these consultations represent? Why are measures not taken to ensure that only Canadians are able to participate and that all Canadians are able to participate to the widest extent possible?

Unfortunately, there do not appear to be any simple remedies. To ensure the communication rights of all Canadians, the same "channels" that have been established in the provision of government services—in person and via telephone, mail, and the Internet—would need to be extended consistently to public consultations. It is not immediately clear what the resulting arrangements would look like, but Canadians would need to be provided with the choice to communicate in ways that best represent their needs. One could imagine a scenario in which a calendar of upcoming consultations could be mailed to all Canadians, such that people could register to participate in upcoming consultations and receive the necessary information and materials by mail. What would consultations look like if the government mailed newsletters to Canadian homes and actually invited and encouraged participation? If the federal government can co-ordinate and manage tax forms and materials and support Canadians who

complete their taxes by mail, telephone, and the Internet, something analogous is clearly within the government's means and could be extended comprehensively and consistently across public consultations.

One could also envision a scenario in which existing Service Canada centres and CAP sites are used to distribute information regarding upcoming and ongoing public consultations. Centres and CAP sites could also make available Internet workstations and computer support or alternatively print consultation materials on demand, which could then be mailed by individuals to the appropriate departments or agencies. Rather than ensuring that community Internet access is a permanent feature of Canada's computing landscape, however, the federal government lacks a comprehensive vision in this area. Despite over a decade of financial support, Industry Canada continues to review and renew the CAP program on an annual basis.

Likewise, in-person public consultations could be organized around issues of popular interest or concern. In France, for example, not only does the National Commission of Public Debate provide citizens with a calendar of upcoming events and consultations, but public discussions and debates take place in cities across France, such that citizens have the opportunity to participate in person or online (United Nations, 2008). Support of this sort—that is, for an inclusive, comprehensive, and consistent approach to public consultations—reflects the extent to which the federal government is truly committed to communication rights and genuinely interested in redefining relations between citizens and the state.

Conclusion

While there appears to be some agreement that government information and services should be provided using a variety of means to ensure that all Canadians—regardless of age, income, capability, location, or technical capacity—are able to access them, this acknowledgment is not extended consistently to the provision of information and services via the Internet or to the public consultation process in Canada. As a result, certain segments of the population—namely, Canadians who select or must use free and open source software as a result of cost, public Internet access provisions, or personal preferences—are not always able to use this technology in their communication with the federal government. In this respect, the government has failed to affirm the communication rights of all Canadians and continues to fail to ensure the necessary conditions that underlie these rights.

Similarly, the rights to know, impart, and discuss appear to be acknowledged implicitly and partially by existing public consultation approaches and mechanisms. Although Canadians with Internet access are able to participate in many of these consultations, the lack of a consistent policy with respect to a diversity of means of communication has resulted in an exclusive reliance on the Internet for some consultations, a reliance that excludes segments of the Canadian population for whom Internet access is difficult to obtain or who do not use or plan to use the Internet at all. This social exclusion, considered in light of additional problems related to online identity and anonymity, raises serious questions regarding both the nature of representation and the legitimacy of online public consultations.

Several policy recommendations are suggested to address these shortcomings. To begin with, governments at all levels need to acknowledge explicitly Canadians' right to communicate and recognize specific communication rights that pertain to communication between citizens and the state. This recognition can be put into practice to assess existing policies and to guide and inform future policy considerations and options, an approach that informed the research and analysis presented in this paper. Secondly, it is suggested that the federal *Common Look and Feel Standards for the Internet* be amended to take into account Canadians who select or must use free and open source software. As a minimum, these guidelines need to address compatibility issues related to multimedia, digital documents, online submissions, and advanced interactive applications. Necessary changes in this area will ensure that government online information, services, and consultations are accessible to all Internet users in Canada, regardless of computing platform. Lastly, major efforts will be required to ensure that the communication rights of all Canadians are guaranteed and that the public consultation process is as inclusive as possible. While the exact details require much consideration, it is suggested that existing policy and infrastructure be mobilized in ways that address the identified problems and improve the conditions necessary to enable Canadians to communicate with the government in ways that best meet their needs.

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Notes

1. Article 18 guarantees freedom of thought, belief, and religion and the right to practice one's beliefs alone or in community with others. Articles 20 and 21 guarantee freedom of peaceful assembly, association, and participation in formal governance processes. And Article 27 guarantees freedom of participation in the cultural life of one's community.
2. For example, the right to life and security of the person require a system of law and order. Similarly, rights to due process and equality in a court of law require an entire legal and judicial system, the provision of which is funded by the state at a substantial cost. Please see Orend (2002) for a more detailed discussion.
3. The appendix in Fisher (1982) includes summaries of early international meetings.
4. XHTML and Cascading Style Sheets are usually considered the most accessible standards.
5. These include the free and open source Vorbis (www.vorbis.com) and Theora (www.theora.org) technologies, which are freely available for Windows, Apple/Mac, and Unix/Linux platforms.
6. Please see the Gnash website at www.gnu.org/software/gnash for the free and open source implementation of Flash technology.
7. This new technology is the VP6 video codec (On2 Technologies, 2007).
8. The consultation was conducted from March 29 to May 25, 2007 (Health Canada, 2007).

Websites

Common Look and Feel for the Internet.

URL: <http://www.tbs-sct.gc.ca/clf-nsi/index-eng.asp>

Consulting with Canadians. URL: <http://www.consultingcanadians.gc.ca>

Gnash. URL: <http://www.gnu.org/software/gnash>

Office of the Prime Minister. URL: <http://www.pm.gc.ca>

Telecommunications Policy Review Panel.

URL: <http://www.telecomreview.ca/epic/site/tprrp-gecrt.nsf/en/Home>

Theora.org. URL: <http://www.theora.org>

Vorbis.org. URL: <http://www.vorbis.com>

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