

The Privacy Piece

Report on Privacy Competencies in Digital Literacy Programs
in Canada, Britain, Australia, America, and Brazil



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Disclaimer: The opinions expressed in this report are those of the author and do not necessarily reflect those of the Office of the Privacy Commissioner of Canada.

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Rationale

Canadian government, industry, and educational organizations agree that digital literacy is vital to Canadians, yet so far the nation does not have a binding commitment to achieve this, unlike some other countries that have made digital literacy a priority. In addition, “privacy competency” – which is a digital literacy skill set that is pertinent for all Canadians – is in danger of being overlooked compared to vocational, marketable skills with Information Communications Technology (ICT).

While existing channels for Canadians to access resources that support privacy competency and more general digital literacy skills development have merit, they are not formally organized or coordinated. As well, they are often primarily focused on safety risks and individualized counter-measures, which has the effect of shortchanging the political importance of privacy online and recourse to privacy rights.

In this paper, Canadian programs are contrasted with efforts from [Britain](#), the [U.S.](#), [Australia](#), and [Brazil](#). Recommendations for the Office of the Privacy Commissioner of Canada (OPC) to improve privacy education are made based on gaps and biases in the existing Canadian and international educational landscape.

Objectives and outcomes

The purpose of this paper is to identify leading digital literacy initiatives in Canada and abroad, evaluate their privacy competencies components, and identify opportunities for the OPC to raise Canadians' online privacy awareness and skills in the context of digital literacy initiatives.

The main outcome is to update the OPC on:

1. What Canadians are being taught about privacy in the context of digital literacy initiatives;
2. Which sub-populations of Canadians are being reached by these privacy modules (e.g. seniors, new Canadians, and young children);
3. Which channels carry privacy education initiatives (e.g. websites, manuals, school curriculum, awareness campaigns, etc.) and which outside organizations are providing them;
4. The international landscape of privacy education initiatives as part of digital literacy skills.

Preface

When outlining the needs of Canada's [Digital Economy Strategy](#), a joint panel of federal bodies agreed a pillar of Canada's digital advantage is "building digital skills for tomorrow."¹ The human touch is what transforms a network of cables and terminals into a civic commons, a worldwide library, and a viable marketplace. MNet endorses the principals that "digital skills development must be fostered in all Canadians" and that "complementary investments in ...digital skills and other areas are required to realize the full potential of general purpose technologies such as ICT".²

Digital literacy is an umbrella term used to describe many skills. At the rate that digital technology changes, it is not useful to codify them too rigidly. In general, MNet holds that digital literacy includes the abilities to use, understand, and create with digital media.³ This same definition has been agreed upon in American, Australian, and British policy documents.⁴ In this context:

Use – represents the technical fluency needed to engage with computers and the Internet. This skill set forms the basis for deeper digital literacy development and is becoming increasingly important as media and communication platforms converge. Essential technical skills include the ability to use computer programs such as word processors, web browsers, e-mail, and other communication tools. In order to develop these skills, Canadians must have access to and be comfortable utilizing equipment and knowledge resources such as broadband services, computers, software tools, Internet search engines, and online databases.

Understand – is the ability to comprehend, contextualize, and critically evaluate digital media. This critical understanding enables individuals to reap the benefits – *and* mitigate the risks – of living in a digital age. This includes realizing how digital media content and applications can reflect, shape, enhance or manipulate our perceptions, beliefs, and feelings about the world around us, as well as an appreciation of one's rights and responsibilities in a digital society. This skill set also prepares us for a

¹ Industry Canada. (2010b). Improving Canada's Digital Advantage: Strategies for Sustainable Prosperity. Retrieved Sept 1st, 2011, from <http://www.cipo.ic.gc.ca/eic/site/ic1.nsf/eng/05542.html>

² Media Awareness Network. (2010a). Digital Literacy in Canada: From Inclusion to Transformation. Retrieved Sept. 1st, 2011, from http://www.media-awareness.ca/english/corporate/media_kit/digital_literacy_paper_pdf/digitalliteracypaper.pdf

³ Ibid.

⁴ Department for Media Culture and Sport and Department for Business Innovation and Skills. (2009). Digital Britain Final Report. Retrieved Sept. 1st, 2011, from <http://webarchive.nationalarchives.gov.uk/20100511084737/http://interactive.bis.gov.uk/digitalbritain/final-report/> | Department of Broadband Communications and the Digital Economy. (2009). Australia's Digital Economy: Future Directions Final Report. Retrieved Sept. 1st, 2011, from http://www.acma.gov.au/WEB/STANDARD/pc=PC_312364

Federal Communications Commission. (2010). Connecting America: The National Broadband Plan. Retrieved Sept. 1, 2011, from <http://www.broadband.gov/download-plan/h>

knowledge economy through development of individual and collective information management skills for finding, evaluating, and effectively using information to communicate, collaborate and problem-solve.

Create – is the ability to create content and effectively communicate using a variety of digital media tools. Creation with digital media means more than the ability to use a word processor or write an e-mail: it includes the ability to adapt communication to various contexts and audiences; to create and communicate using rich media such as images, video, and sound; and to effectively and responsibly engage with Web 2.0 user-generated content such as blogs and discussion forums, video and photo sharing, social gaming, and other forms of social media. The ability to create with digital media ensures that Canadians are active contributors to the digital society.

Digital literacy is commonly conflated with Information Communication Technologies (ICT) competence. This ranges from basic tasks like turning on a PC to extremely difficult ones like editing a digital film. These skills with ICT tools set candidates apart in the job market, but they are only one piece of the puzzle. A Canadian computer programmer who trusts all the information she finds online, starts flame-wars for fun, and copies straight out of Wikipedia has ICT skills, but demonstrates poor digital literacy. Digital literacy involves both skills and a set of good habits online including skepticism and responsibility. Whereas certain jobs require deep, specialized ICT skills like programming, digital literacy is relevant for all Canadians because nearly all of us use ICT on a daily basis in our personal and work lives.

The skills that fall under ‘Privacy Competency’ are important elements of digital literacy that apply to every Canadian who participates in online life. These competencies serve ethical and protective purposes, defining not only personal practices that lend themselves to safe, informed and responsible Internet use, but also our ability to measure how well legal and policy practices are supporting and protecting us as citizens, learners, creators and consumers in the digital realm.

MNET proposes the following privacy competencies to be relevant for every Canadian as part of digital literacy:⁵

1. Awareness of personal information being treated as a commodity
2. Habits of restraint and discretion when disclosing online
3. Ability to evaluate a website’s information management practices and ability to use privacy settings
4. Appreciation of vulnerability of vital information (geo-location, birth date, SIN)
5. Attention to personal reputation management
6. Care when handling others' personal information
7. Skepticism and restraint when seeking personal information about another online

⁵ Media Awareness Network. http://www.media-awareness.ca/english/corporate/media_kit/digital_literacy_paper_pdf/digitalliteracypaper.pdf

8. Knowledge of privacy rights and recourse mechanisms

Sensitivity to the power which drives media has a particular importance in the information age. Controlling someone's personal information is a way of wielding power over them, and Canadians need to be able to exercise their privacy rights in order to shield themselves from undue digital intrusions into their private lives. This is an increasingly precarious balance as Canadians disclose more and more information about themselves online which can be repurposed by others in unexpected ways.

Digital Literacy Overview within National Strategies

Australia and the U.K. have both published national strategies to address the need for a digitally literate population starting at the K-12 level and extending all the way up to senior citizens.⁶ These bids include attention to the specific needs of the future workforce as well as the more general needs of the population. They not only propose definitions of what it means to be digitally literate but also set binding expectations for the country to meet in terms of infrastructure, uptake, and education.

Currently, Canada does not have a binding national strategy for digital literacy.⁷ At the launch of its Digital Economy Strategy Consultation process in May 2010 (lead by the Minister of Industry Canada, in conjunction with the Minister of Human Resources and Skills Development Canada and the Minister of Canadian Heritage and Official Languages) digital literacy skills development was included in the government's consultation paper *Improving Canada's Digital Advantage: Strategies for Sustainable Prosperity*, primarily under the pillar "Building Digital Skills for Tomorrow".⁸ However, the federal government's post-consultation focus has primarily been on infrastructure and security.⁹

Federal government bureaus, industry associations, and educational organizations recognize the importance of digital literacy in daily life, but their efforts are directed elsewhere. Presently, privacy online as a specific topic within digital literacy often does not receive the attention it deserves and efforts that are undertaken are hampered by the lack of a coordinated strategy: protecting privacy online is a clear candidate for a digital literacy skill all Canadians should have, yet it does not figure strongly in many digital literacy efforts.

⁶ Department for Media Culture and Sport and Department for Business Innovation and Skills. <http://webarchive.nationalarchives.gov.uk/20100511084737/http://interactive.bis.gov.uk/digitalbritain/final-report/>. | http://www.acma.gov.au/WEB/STANDARD/pc=PC_312364 Department of Broadband Communications and the Digital Economy.

⁷ Media Awareness Network. http://www.media-awareness.ca/english/corporate/media_kit/digital_literacy_paper_pdf/digitalliteracypaper.pdf. | Standing Committee on Transport and Communications. (2010). Plan for a Digital Canada. Retrieved Sept. 1st, 2011, from <http://planfordigitalcanada.ca/>

⁸ Industry Canada. <http://www.cipo.ic.gc.ca/eic/site/ic1.nsf/eng/05542.html>.

⁹ Government of Canada. (2011). Canada's Digital Economy | News. Retrieved Oct 26, 2011, from http://de-en.gc.ca/eic/site/028.nsf/eng/h_00026.html

National industry bodies

(Full list in Appendix B)

Industry bodies are vocal about the need for digital literacy, but efforts to educate the wider population may be limited by Industry's current shortfall of specially trained ICT staff.¹⁰ Industry interventions are targeted at attracting more students to the field and re-branding it as a fun, interesting line of work. Although they acknowledge the need for digital literacy for the entire population, their focus remains on growing a pool of specialized talent to fill niche employment roles.

Exceptions to this trend include the [Canadian Marketing Association](#) (CMA), which does some consumer outreach to educate Canadians on consumer profiling.¹¹ The [Interactive Advertising Bureau of Canada](#) (of which CMA is a member) has also committed to simplifying technical measures to reduce tracking and to increase educational efforts, although this exists only as a framework at present.¹² Lastly, the [Canadian Wireless Telecommunications Association](#) has created an educational portal devoted to safe texting.¹³

National education bodies

(Full list in Appendix C)

National education bodies are responding to the challenges of the knowledge economy, with adults who are semi-literate and children who are at risk of not achieving enough print literacy being the main priority. Interventions are justified on the basis of the lowered earning potential and employability of semi-literate populations. Although the ubiquity of ICT at home and in the workplace is cited as one of the reasons making traditional literacy more urgent, efforts are not targeted specifically to new media. Nor are efforts targeted to students who already meet present expectations for traditional print literacy. Media Awareness Network is an exception to this rule, and has produced

¹⁰ Canadian Coalition for Tomorrow's ICT Skills. (2010). Canada: The Go-to Country for Brainpower Resources in the Global Digital Economy Retrieved Oct 1, 2011, from http://www.ccict.ca/wp-content/uploads/2010/11/CCICT_Digital_Economy_Strategy.pdf Information and Communications Technology Council. (2010). Digital Literacy: Canada's Productivity Opportunity and Digital Skills for Prosperity and Productivity in Canada Retrieved Oct 1, 2011, from http://www.ictc-ctic.ca/uploadedFiles/About_Us/ICTC_News/News_Items/ICTC_DL_E.pdf

¹¹ Canadian Marketing Association. Canadian Marketing Association website. Retrieved Oct. 1, 2011, from <http://www.the-cma.org/>

¹² Interactive Advertising Bureau of Canada. (2011). Canada's Advertising Industry Releases Self-Regulation Framework For Online Behavioural Advertising That Ensures Transparency, Education, Choice And Accountability For Consumers. Retrieved Oct 1, 2011, from <http://www.iabcanada.com/blog/oba-self-regulatory-framework>

¹³ Canadian Wireless Telecommunications Association. (2010). textED.ca. Retrieved Oct 1, 2011, from <http://www.texted.ca/app/en/>

material teaching privacy competencies as part of its mandate to promote digital literacy skills development.

Provincial education

(Provincial Ministries of Education)

Since K-12 education is an intervention which reaches nearly all Canadian students, it is an obvious site for digital literacy education to occur. However, different provinces give different weight to the topic in their curricular guidelines. It is entirely likely that different provinces each hold a piece of the digital literacy puzzle in their pedagogy. In general, ethical and responsible use of ICT (including protecting privacy) is included only in the most comprehensive programs as a very high-order skill. But it would be misleading to assume that privacy education only occurs when mandated by curricular outcome guidelines; teachers have great freedom over subject matter, and may teach this area to creatively fulfill other curriculum requirements. Integrating outcomes for digital literacy and privacy competency as an official part of the K-12 curriculum in Canada will provide all educators with a green light to foster these skills amongst all students.

The Role of the OPC

Taken together, digital literacy initiatives for Canadians enjoy endorsement by all key players, but this enthusiasm does not reliably translate into digital literacy education for all citizens. Privacy online is yet another degree removed. Where privacy education exists, the focus tends towards the mechanics of protecting privacy online as opposed to the reasons why privacy ought to be protected or about our existing rights protecting privacy. OPC has taken this on in a variety of ways, including its youthprivacy.ca website and its recently launched youth presentation package for schools and communities – *Protecting Your Online Rep.* Provincial and territorial privacy commissioners have also undertaken various initiatives, with links to their websites available at youthprivacy.ca.

With this in mind, the following sections will outline in more detail the ways in which privacy education is currently being integrated in digital literacy initiatives in Canada and around the world.

Canadian Digital Literacy Efforts

Key Players

- Government
 - [Consumer Measures Committee](#)
 - [Get Cyber Safe](#)
- Industry Associations
 - [Canadian Marketing Association](#)
- Law Enforcement
 - [RCMP](#)
- Advocacy Groups
 - [Alberta Civil Liberties Research Centre](#)
 - [Canadian Association of Retired Persons](#)
- Educational Organizations
 - [Media Awareness Network](#)
 - Ministries of Education
 - [Alberta](#)
 - [British Columbia](#)
 - [Manitoba](#)
 - [Saskatchewan](#)
- Community Programs
 - [C@P \(Community Access Programs\)](#)
- Student Productions
 - [Digital tattoo](#)
 - [Weekend pictures](#)

Government

Consumer Measures Committee (CMC)

- **Organization type:** Federal-provincial-territorial committee, co-chaired by Industry Canada.
- **Purpose:** “Consumer protection remains an important part of the federal, provincial and territorial governments' agenda. In a spirit of cooperation and to improve efficiency on the consumer front, the Consumer Measures Committee (CMC) was created under Chapter Eight of the Agreement on Internal Trade.... The CMC provides a federal-provincial-territorial (FPT) forum for national cooperation to improve the marketplace for Canadian consumers, through

harmonization of laws, regulations and practices and through actions to raise public awareness.”¹⁴

- **Description of program:** The CMC website educates Canadians about common privacy pitfalls when shopping online and also encourages them to invoke their privacy rights with merchants, as well as scrutinize site terms of use and privacy options. It also devotes a great deal of effort to pre-empt fraud and cyber-crime. Although the focus is on customer protection across all modes (including in-person and by phone) there is substantial material devoted to *online* shopping and personal information. The website is broken into several topics and allows users to assemble a customized, downloadable handbook covering topic areas most relevant to themselves.¹⁵ Although presented in a reference, textual format, these resources stand out because they are very clearly grounded in the Canadian privacy regulatory environment and prominently display contact information for several pertinent government offices depending on the topic. The body of the website is written for adults, although there are short, supplemental tip sheets available for seniors and adolescents.
- **Evaluation of program:** This program’s strength is its customizability; visitors to the site are invited to specify which chapters of the handbook interest them and compile these into a personal handbook to keep. Furthermore, the outreach effort is identified by its own unique URL (consumerhandbook.ca) separate from the CMC’s main organizational site which is mainly of interest to merchants. The handbook is especially thorough in its listings of which government bodies to contact (both federal and provincial) sorted by different types of consumer/privacy breaches. The downside to this program is its scope; major swaths of the material align with the OPC’s goals of empowering Canadians to manage their personal information, but because this has been designed as a consumer resource, the handbook focuses narrowly on consumer/financial privacy risks.

Public Safety: www.getcybersafe.gc.ca

- **Organization Type:** Federal Government Department
- **Purpose:** As part of Canada’s Cyber Security Strategy, in October 2011 Public Safety launched its national public awareness initiative “Get Cyber Safe”. Supported by the website getcybersafe.ca this initiative is intended to educate Canadians about Internet security and the simple steps they can take to protect themselves online.
- **Description of program:** The Get Cybersafe website contains a number of clearly written articles describing the various risks associated with online activities and ways to protect yourself and your devices. Written in plain language, the site includes tips on creating strong passwords, the basics about identity theft, recognizing scams and fraud, and guidelines for online banking and

¹⁴ Consumer Measures Committee. Consumer Measures Committee website. Retrieved Oct. 1, 2011, from <http://cmcweb.ca/>

¹⁵ Consumer Measures Committee. Canadian Consumer Handbook. Retrieved Oct. 1, 2011, from <http://www.consumerhandbook.ca/>

online shopping. In the section on privacy policies, visitors are referred to the OPC website. In the section “Protect your family” privacy issues are woven into informational articles on online safety, online exploitation, cyberbullying, social networking, and mobile use. Youthprivacy.ca is also linked to in the additional resources for parents.

- **Evaluation of program:** Although this website does not have interactive features, it is a comprehensive source of information on security-related issues. The breadth of the topics addressed – from securing your digital device, to protecting your family and online financial transactions – make this a valuable resource for the general public.

Industry Associations

At first glance there appears no shortage of online “resources” to protect consumers from various risks associated with Internet use. However these resources, which are usually hosted on the websites of technology companies, often lack detail and tend to focus on mitigating risk through technical solutions like securing one’s personal computer with additional software.¹⁶

The digital literacy efforts listed below are more substantial. Interestingly, they all seem directed at adults and are delivered not as learning modules but as straightforward texts. Where privacy is addressed, the focus tends to be on privacy for the sake of protecting *consumers’* personal information.

Canadian Marketing Association (CMA)

- **Organization type:** not-for-profit industry association, internal regulator.
- **Purpose:** “The Canadian Marketing Association (CMA) is the only marketing association in Canada that embraces Canada’s major business sectors and all marketing disciplines, channels and technologies. . . . Compliance with the Association's Code of Ethics and Standards of Practice is compulsory for its members.”¹⁷
- **Description of program:** The CMA website includes sections devoted to consumer education, with topics such as “dealing with spam”, “protecting your privacy”, and “protecting your teenager’s privacy”. Its main focus is to make marketing practices such as online profiling transparent to consumers and to inspire confidence in the code of ethics which governs CMA members. This is complemented by generic tips for consumers to manage their own privacy (or that of their children) such as learning privacy settings and inspecting site terms of

¹⁶ Microsoft Brazil. (2011). Microsoft Brazil website (central de protecao e segurança). Retrieved Oct 1, 2011, from <http://www.microsoft.com/pt-br/security/online-privacy/default.aspx> Microsoft Canada. (2011). Microsoft Canada website (security for your home). Retrieved Oct 1, 2011, from

<http://www.microsoft.com/canada/protect/protect-your-family/> Microsoft USA. (2011). Microsoft USA website (safety and security center). from <http://www.microsoft.com/security/online-privacy/prevent.aspx>

¹⁷ Canadian Marketing Association. <http://www.the-cma.org/>.

use. It also promotes and links to initiatives like the [Do Not Contact](#) program as well as a consumer complaint centre. Additionally, the website refers visitors back to provincial and national privacy offices as well as other media education efforts such as Media Awareness Network.¹⁸ The audience targeted appears to be adults and parents.

- **Evaluation of program:** The main strength of the CMA's outreach effort is that it comes from a coalition of marketers and demystifies common online marketing practices. It also serves as a portal to relevant recourse mechanisms for consumers specific to the Canadian context, which is rare compared to tips focusing on *individual-level* privacy management that are widely available elsewhere. The weakness of this program is that it is not truly an educational module, but more akin to a reference guide. Furthermore, it is positioned as a sub-section of the larger CMA website, which is mainly of interest to industry members. It may not be an obvious destination for concerned consumers and even those who reach the CMA website may not find the information easily.

Law Enforcement

Royal Canadian Mounted Police (RCMP)

- **Organization type:** Federal law enforcement.

Internet Security Website

- **Purpose:** "It is important to understand that today almost any "traditional" crime can be committed with the help of technology. Those who are victims of cyber-crimes must understand that they have the same recourse than if the offence had been committed without the use of technology."¹⁹
- **Description of program:** The RCMP website presents privacy problems through a legal lens, and is focused on crime prevention and avoidance.²⁰ Mixed in among serious crimes like online hate and child exploitation, is information applicable to privacy in that the tips to avoid serious crimes (like burglary) are similar to ones for managing privacy more generally (concealing geo-location online). Readers are urged to safeguard their online identities, but the focus is decidedly on technical measures like adblocking software or disabling cookies. Segments of the site read as companion pieces to the Criminal Code, and the text relating to laws is often accompanied by plain language explanations of how a particular law relates to life online, including privacy. The information is clearly aimed at adults and parents given the level of language and the density of the material.
- **Evaluation of program:** This site's strength is its breadth; it covers the entire gamut of crime that can be assisted by the Internet. On the other hand, issues

¹⁸ Media Awareness Network. MNet website. Retrieved Oct. 1, 2011, from <http://www.media-awareness.ca/>

¹⁹ Royal Canadian Mounted Police. RCMP Internet Security website. Retrieved Oct. 1, 2011, from <http://www.rcmp-grc.gc.ca/qc/pub/cybercrime/cybercrime-eng.htm>

²⁰ Ibid.

related to privacy are mixed in amongst many other unrelated topics like computer viruses and uttering threats online. The content, written by law enforcement, is focused on criminal activity and does not treat many “grey area” privacy scenarios. Furthermore, these guides are not prominent on the RCMP website, and are presented in a static style. This program appears to be for reference purposes rather than proactive outreach. Deal.org (the youth component of the RCMP’s crime prevention strategy) is by comparison much more accessible.²¹

[DEAL.org](#)

- **Purpose:** Website designed to proactively engage youth and prevent youth crime
- **Description of program:** Deal.org throws into relief the difference between educational efforts aimed at youth versus adults. The RCMP recasts much of the same online safety programming from their cyber-crime site²² for a youth audience through the deal.org website.²³ This site features contributions from youth and is written in a more casual, approachable tone. Entries are styled after blog posts rather than stern safety manuals, and some include activities to engage users, such as this one:
 - “You can help make sure your interactions online are positive by thinking carefully about what you put in your online profile. Check out the tips in our fact sheet about constructing a safe online profile and see how yours compares!”

In line with this focus on youth, the digital literacy privacy materials are focused on activities popular with adolescents like social networking and problems like cyberbullying. Beyond crime prevention, the site occasionally broaches topics like personal reputation management. Deal.org links back to OPC youth initiatives as well as Media Awareness Network.²⁴

- **Evaluation of program:** Deal.org’s greatest strength is how it has adjusted its tone and style to appeal to youth. It should be noted that deal.org covers a huge gamut of youth issues and privacy online is merely one of six major headings. Online privacy education is undertaken mainly where it overlaps with preventing crimes that are facilitated by disclosure of personal information online such as stalking, robbery, harassment, or child luring.

²¹ RCMP. DEAL.org website. Retrieved Oct. 1, 2011, from <http://deal.org/>

²² Royal Canadian Mounted Police. <http://www.rcmp-grc.gc.ca/qc/pub/cybercrime/cybercrime-eng.htm>.

²³ RCMP. <http://deal.org/>.

²⁴ Media Awareness Network. <http://www.media-awareness.ca/>.

Advocacy groups

Alberta Civil Liberties Research Centre (ACLRC)

- **Organization type:** non-governmental, non-profit organization affiliated with the University of Calgary and supported by the Department of Canadian Heritage, Government of Canada, Status of Women Canada, Human Resources Development Canada, in addition to various provincial agencies
- **Purpose:** “To promote awareness among Albertans about civil liberties and human rights through research and education.”²⁵
- **Description of program:** As a partner in the [Identity Trail initiative](#), led by Dr. Valerie Steeves of the University of Ottawa, ACLRC features on its website the educational module “In Your I!” developed by Dr. Steeves. The module is described as follows: “[In your I!] is designed to teach young people how networked technologies change their experience of privacy, so they can better manage their online social interactions and get the full benefit of the Internet. The unit uses a series of interactive media clips about a student who is accused of vandalizing a teacher’s car to demonstrate the differences between face-to-face communication and electronic communication, and to encourage students to think more deeply about the relationship between privacy, anonymity and identity in a networked world.”²⁶ Intended for Grades 10-12, this classroom digital literacy module puts privacy in the spotlight very clearly. The treatment is deep, rich, and challenging. The downloadable materials include everything necessary to run this lesson in class (handouts, discussion topics, lesson plans, and a textbook for deeper study).
- **Evaluation of program:** This program’s greatest strength is taking a real-life example of a privacy problem (a police investigation) and articulating it onto more abstract aspects of privacy and personal identity. Where most modules focus on delivering privacy safety instructions as quickly and succinctly as possible, “In your I!” invites reflection and integration of privacy with students’ personal beliefs. The drawback is that such an intervention requires more planning and effort to deliver. Although it is theoretically deliverable as a self-directed unit via the website, it is clearly intended to be run as a teacher-led classroom activity. Additionally, it may be more elaborate than the minimum effort needed to educate youth on common privacy pitfalls online.

Canadian Association of Retired Persons (CARP)

- **Organization type:** National, non-profit, non-partisan organization.
- **Purpose:** “CARP is ... committed to a ‘New Vision of Aging for Canada’ promoting social change that will bring financial security, equitable access to

²⁵ ACLRC, <http://www.aclrc.com/>

²⁶ Steeves. (2006). In Your I! Alberta_Civil_Liberties_Research_Centre Retrieved Oct. 1, 2011, from <http://www.idtrail.org/InYourI/>

- health care and freedom from discrimination. Our mandate is to promote and protect the interests, rights and quality of life for Canadians as we age.”²⁷
- **Description of programs:** CARP has advocated for increased legal protection for seniors online, especially where fraud is concerned.²⁸ However, CARP itself does not provide digital literacy education to seniors directly. CARP links to some community organizations in the Toronto region to promote digital literacy for seniors in that area.²⁹
 - **Comments:** CARP has been included in this review as a placeholder to show the acute lack of digital literacy options for seniors. CARP’s link to a single digital literacy program in the GTA³⁰ and a member discount offered on distance learning computer courses were the only resources located in a scan of programs for seniors.

Educational Organizations

Media Awareness Network (MNet)

- **Organization type:** Not-for-profit, educational organization for digital and media literacy with a primary focus on children and youth; supported by funding from CTV, Shaw, Bell, TELUS, CIRA, Google, National Film Board, and the Government of Canada.
- **Purpose:** “MNet focuses its efforts on equipping adults with information and tools to help young people understand how the media work, how the media may affect their lifestyle choices and the extent to which they, as consumers and citizens, are being well informed.”³¹
- **Description of programs:** MNet has been educating Canadians about the media (in both formal and political terms) since the mid-1990s and brings that same sensibility to bear on questions relating to digital literacy and online privacy. MNet produces lesson plans for students in grades K-12 which converge with provincial curricula as well as interactive games about marketing and privacy online, student tutorials that include sections relating to various aspects of online privacy, as well as professional development workshops for educators and workshops and resources for community organizations and parents. Some of these resources have been produced in partnership with the OPC. Among MNet’s resources is a unique e-parenting tutorial³² that features interactive, rich content to engage and educate parents. MNet has also produced a game (privacy pirates)

²⁷ CARP. (2011a). About CARP. CARP website Retrieved Oct 1, 2011, from <http://www.carp.ca/about-carp/>

²⁸ CARP. (2011c). Preventing Fraud in a Digital Age Conference. CARP Blog Retrieved Oct 1, 2011, from <http://www.carp.ca/2011/03/11/preventing-fraud-in-a-digital-age-conference/>

²⁹ CARP. (2011b). Elder Technology Assistance Group. CARP Blog Retrieved Oct 1, 2011, from <http://www.carp.ca/2011/01/15/elder-technology-assistance-group/>

³⁰ Ibid.

³¹ Media Awareness Network. <http://www.media-awareness.ca/>.

³² Media Awareness Network. e-parenting interactive tutorial. Retrieved Oct. 1, 2011, from <http://www.media-awareness.ca/english/parents/internet/eparenting.cfm>

aimed at children as young as 7 which teaches online privacy in the context of commercial sites targeted to this age group.³³ MNet's resources are meant to be lead by adults (like parents and teachers) to educate the youth audience.

- **Evaluation of programs:** Compared to other interventions profiled here, MNet's alignment with OPC's mission of protecting privacy for all Canadians is very clear. MNet takes a democratic approach to digital literacy skills development emphasizing skills for life which are applicable to all youth rather than highly specialized, vocational ICT skills. This is reflected in MNet's approach to teaching privacy online as well. MNet's mission is not to merely shield youth from risk online, but to equip them with skills to engage safely with risks. MNet's major strength is its range of teaching materials (including rich, appealing, interactive content) tailored to specific developmental stages and curricular goals. The downside of this wealth of material is that to a newcomer, the sheer volume of lesson plans and information can be intimidating. MNet is currently in the process of streamlining its website to make its content easier to navigate for users.

Ministries of Education

Among the provinces and territories, coverage of digital literacy is uneven. This applies by extension to privacy education. Below are portraits of the four provinces who have committed privacy to official curricular outcomes: Alberta, British Columbia, Manitoba, and Saskatchewan. Teachers in other provinces may include digital literacy/privacy management in their lessons, but as of yet the other provinces have not mandated this as a specific curricular outcome.

Alberta

- **Description of program:** Alberta recently revised its provincial curriculum,³⁴ setting goals which endorse digital literacy/privacy education such as:
 - Understanding the role of technology towards the self and society
 - demonstrate an understanding of the basic principles and issues of e-commerce, including such topics as security and privacy, marketing, and implications for governments, businesses and consumers alike
 - Moral and ethical expectations for ICT
 - explain the issues involved in balancing the right to access information with the right to personal privacy
 - demonstrate an understanding of how changes in technology can benefit or harm society
 - respect ownership and integrity of information

³³ Media Awareness Network. (2011). Privacy Pirates: an interactive unit on online privacy. Retrieved Oct. 1, 2011, from <http://www.media-awareness.ca/blog/index.cfm?commentID=181>

³⁴ Alberta Ministry of Education. Government of Alberta Education website (ICT program of study). Retrieved Oct. 1, 2011, from <http://www.education.alberta.ca/teachers/program/ict.aspx>

- These excerpted outcomes are supportive of the OPC’s bid to inculcate privacy competencies as part of digital literacy, although they do not apply to the youngest divisions (Grades 1-6). Responsible handling of personal information and privacy is not taught until the later stages in a student’s education (Grades 7-12).
- **Evaluation of program:** Although the curricular goals outlined above set the expectation for digital literacy/privacy education, it is beyond the scope of this paper to probe the extent these expectations have been implemented or how much support teachers have in attaining these goals. It is noteworthy however, that privacy is singled out as a specific topic within the broader scope of digital literacy skills. Moreover, both the commercial *and* political aspects of privacy are stressed. One issue is that the outcomes for developing privacy competencies are applied long after the typical age children start going online.

British Columbia

- **Description of program:** “To participate and make informed decisions in today’s world, a global citizen requires technological and information literacy skills that include the ability to gather, process, and manipulate data. These skills are now as essential as traditional numeracy and literacy.”³⁵ British Columbia’s ICT curriculum documents are a little dated (from 1996 and 2003), yet they were preparing students to negotiate privacy challenges with ICT even before the advent of the read-write Web. Prior to Grade 7, ICT skills development is integrated at schools in a cross-curricular style but it is only in Grade 5 that there are specific curricular outcomes relating to privacy – *demonstrate an understanding of the need for the security and privacy of electronic information*. Suggested student activities for this outcome include learning about passwords and discussing issues relating to privacy of information.³⁶ From Grades 8-10, this approach is supplemented by a core technology course which culminates in specialized electives in Grades 11 and 12. The stated outcomes which suit digital literacy/privacy education are reproduced below:³⁷
 - Grade 8:
 - protect information using information technology tools, demonstrate an awareness of the impact of information technology tools on society
 - Grade 9:

³⁵ British Columbia Ministry of Education. (1996a). Information Technology 8 to 10 (Integrated Resource Package). Retrieved Oct. 1, 2011, from http://www.bced.gov.bc.ca/irp/pdfs/applied_skills/1996infotech810.pdf

³⁶ British Columbia Ministry of Education. (1996b). Information Technology K-7 (Resource Document). Retrieved Oct 1, 2011, from <http://www.bced.gov.bc.ca/irp/pdfs/resdocs/itk7.pdf>

³⁷ British Columbia Ministry of Education. http://www.bced.gov.bc.ca/irp/pdfs/applied_skills/1996infotech810.pdf. | British Columbia Ministry of Education. (2003, 2004). Information and Communications Technology 11 and 12 (Integrated Resource Package). Retrieved Oct. 1, 2011, from http://www.bced.gov.bc.ca/irp/pdfs/applied_skills/2003infotech1112.pdf

- demonstrate an understanding of the ethical use of information
 - Grade 10:
 - practice handling Internet information in an ethical way, evaluate the impact of information technology tools on the workplace, on individuals, and on society
 - Grades 11-12:
 - apply ethical standards with respect to privacy, confidentiality, piracy, plagiarism, and personal behaviour while using electronic tools to gather information
 - demonstrate strategies that protect personal privacy while using the Internet
 - explain relationships between concerns about privacy and new technologies, including “spyware” and content filtering
 - assess issues of personal security and privacy in a digital society
 - assess the impact of technology on their personal privacy
- **Evaluation of program:** The core principals expected in 1996 and 2003 translate well to the present day, although given the increasingly younger ages children go online, these interventions may start a little late. Also, although these outcomes are generally supportive of digital citizenship they do not map perfectly onto the current online privacy environment. They are, however, compatible and the curriculum documents include the BC Privacy Commissioner as an official learning resource.

Manitoba

- **Description of program:** Manitoba's ICT guidelines³⁸ stand out because they start in Kindergarten and aim for a fully cross-curricular approach to teaching ICT. This approach is under-girded by reporting every two years on student achievement of ICT literacy along with a detailed pedagogical approach to infusing curriculum with ICT. The program also has a companion guide for caregivers to support digital literacy skills development at home. Although responsible use of ICT (including protecting privacy) is still considered a higher-order function than merely manipulating information with a computer, it is not placed outside the reach of fairly young children (Grades 2-5). At this age a curricular goal is for children to trust the guidelines that are presented to them by teachers and parents, with the goal of having them solidified as personal values for responsible ICT use from Grade 6 and onward. This is set out as one of the pillars of the ICT program, dubbed "big ideas":
 - "Big Idea, Responsibility and Ethics: The first Big Idea in the Affective Domain, Responsibility and Ethics, refers to knowing about, demonstrating beliefs about, and valuing policies, guidelines, and behaviours for using ICT ethically, responsibly, and safely, including protection of privacy and of intellectual property. Learners are expected to demonstrate ethical and responsible behaviour at all times when using ICT."³⁹
- **Evaluation of program:** Cross-curricular approaches to ICT integration are risky because they diffuse responsibility among many teachers, often with little direction. In the case of Manitoba, the integration of ICT is an overall revision of existing pedagogy to ensure that the uses of ICT are clear and appealing in the classroom. Although privacy is mentioned as an example of ethical use, the curricular outcomes favour a broad approach to digital literacy. Nonetheless, the goals upheld in Manitoba's curriculum provide a strong foundation on which to build respect for privacy and to provide more granular guidelines at younger ages than in other provinces.

Saskatchewan

- **Description of program:** Saskatchewan has set checkpoints for when students are expected to begin appraising the impact of ICT on privacy, both at the middle and senior levels (but not at the elementary level, which focuses on safety).

³⁸ Manitoba Education Citizenship and Youth School Programs Division. (2006). A Continuum Model for Literacy with ICT Across the Curriculum. Retrieved Oct. 1, 2011, from <http://www.edu.gov.mb.ca/k12/tech/lict/>

³⁹ Ibid.

Expectations for privacy education are identical for Grades 6-12, excerpted below.⁴⁰

- Social, Human and Environmental Issues:
 - explore and recognize the impact of Information Communication Technology on self, society, and the environment, including these topics:
 - Privacy
 - Consumer education about e-commerce
 - Like Manitoba, the approach is trans-curricular and is intended to integrate into daily activities across all subject areas.
- **Evaluation of program:** Of all the provinces profiled, Saskatchewan's goals for digital literacy/privacy education have the least amount of supporting documentation to guide teachers and students. Although the Ministry has set an expectation for digital literacy skills development, including some privacy education, responsibility for elaborating this plan appears to fall to individual educators. There is also a lack of sensitivity to developmental stages in these guidelines, which collapse the huge developmental range between Grades 6-12 into one window where privacy education is concerned. What's more, this wide window may still be starting too late given the decreasing ages at which children go online. Although the Saskatchewan curriculum encourages exploration and recognition of topics, it does not set expectations for *mastery* of them.

Community Programs

Community Access Program (C@P) sites

- **Organization type:** Varied. Each C@P site has a different organizational structure depending on province, region, and municipality. They are funded by multiple sources, including in-kind donations from local organizations but all receive some federal funding through Industry Canada.
- **Purpose:** "The Community Access Program was established in 1994 in concert with the SchoolNet program as a response to the Government of Canada's priority to stimulate economic growth in rural areas by providing access to the Information Highway. The program's core objective has been to provide affordable public Internet access, skills training and access to related services. Public locations such as schools, libraries and community centres have been used to provide both public access points to the Internet as well as computer support and training. Budget 1998 provided additional funding for the purpose of establishing public access sites in urban areas."⁴¹

⁴⁰Saskatchewan Ministry of Education. (2003). Information and Communication Technology Skill Checkpoints. Retrieved Oct. 1, 2011, from <http://www.education.gov.sk.ca/policy>

⁴¹ Industry Canada. (2010a). Final Evaluation of the Community Access Program. Retrieved Sept. 1st, 2011, from <http://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03127.html>

- **Description of program:** C@P sites provide free access to the Internet and training to use it effectively. Originally designed to spark interest in the Internet for all Canadians, its mandate has been narrowed to address Canadians affected by the digital divide (such as rural dwellers, new immigrants, seniors, and Francophones).

Although youth, a highly connected band of the population, make the greatest use of C@P sites, the program reaches groups like seniors and new immigrants. Eighteen per cent of *urban* C@P sites report that new immigrants use these sites to a large extent.⁴²

Describing the services of C@P programs succinctly is impossible because they are customized by staff to local needs and interests. There is no overarching directive for C@P programming. Based on administrator surveys,⁴³ digital literacy training which implicates privacy appears common:

- Using Internet/web searching (97% of sites)
- Basic Computer use (97% of sites)
- Using Email (96% of sites)
- Job-searching (81% of sites)
- E-Banking (44% of sites)

- **Evaluation of program:** C@P sites made great inroads in the early program years, but have since reached a plateau in terms of getting more Canadians online.⁴⁴ The budget for the program has been in gradual decline:

*Program funding rose to a high of \$64 million in 1999–2000 while the number of sites peaked at 8,800 in 2003–2004. Beginning in 2006–2007, CAP funding was extended by one-year increments. The latest extension to March 31, 2010, provides \$15.4 million in funding, along with \$10.1 million from the Youth Employment Strategy.*⁴⁵

The program's main strength has been its resilience in raising funds from other sources to continue offering services. Although Canadian households, especially in urban areas, have many options for adopting home Internet access, C@P sites remain a safety net for those who cannot access the Internet from home. They also continue to offer digital literacy training, an ongoing need which is not met by availability of home access. The weakness of the program is that C@P sites are not independent entities, but are more often appended to an existing organization like a school or library. C@P staff and volunteers fulfill many roles in addition to being de facto ICT instructors – whether or not they have expertise. In addition, there is no central repository of resources that C@P members can access, which

⁴² EKOS. (2004). Evaluation of the Community Access Program (C@P). Final Report for Industry Canada Retrieved Oct 1, 2011, from <http://archive.iprp.ischool.utoronto.ca/cracin/policy/policy/polmap-ic1.pdf>

⁴³ Industry Canada. <http://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03127.html>.

⁴⁴ Ibid.

⁴⁵ Ibid.

means that individual sites and networks perform redundant work preparing instructional material or borrowing it from elsewhere.⁴⁶ Below are slides from a C@P regional presentation stressing these problems.⁴⁷

The Issues

- CAP sites that have no staff/volunteer with tech experience to teach/instruct.
- No standard material that can be adapted and used by all sites.
- The need for a central database of training material.

* These Limit the revenue potential of training seminars*

Building Stronger Communities Through Technology

Purpose

- To create relevant training material that can be used in a CAP site environment to train Patrons, as well as making the material “learnable at home”.
- To create relevant supplement material for the trainer. (train the trainer material)
- To create a viable product that can be used as a revenue generator for NS CAP sites.

Building Stronger Communities Through Technology

Student productions

Digital tattoo

- **Organization type:** Student-led educational website supported by partnership between University of British Columbia, University of Victoria, and Thompson Rivers University.
- **Purpose:** “What is a digital tattoo? In short, it is your digital identity. Just like a tattoo, your digital reputation is an expression of yourself: it is formed and added to by you and others over time. Want to learn more about yours?”⁴⁸
- **Description of program:** Digital tattoo is a hybrid blog, news, and educational site devoted to the privacy concerns of university students. A typical module presents a complex case study pulled from the news to illustrate multiple points of managing one’s privacy in a networked world. The posts allow commenting, although this feature is under-used, and follow up with a short interactive quiz based on the module content. Some modules conclude with activities for the user to try, such as running a Google search on oneself and then answering questions about the results. The treatment of privacy covers commercial, social, and political aspects. Reputation management is very prominent as a privacy theme. The site has regularly updated news-feeds for each of its themes. Digital tattoo also covers other issues salient online like respecting intellectual property and personal safety.

⁴⁶ C@P Newfoundland. (2011). Newfoundland CAP training website. Retrieved Oct. 1, 2011, from <http://capnltraining.wordpress.com/> | Communautique. (2011). Ressources Animateurs. Retrieved Oct. 1, 2011, from <http://stage.communautique.qc.ca/> | Iverness County C@P Network Society. (2011). ICCNS Training site. Retrieved Oct. 1, 2011, from <https://sites.google.com/a/iccns.ca/iccns-training/>

⁴⁷ Iverness County C@P Network Society. <https://sites.google.com/a/iccns.ca/iccns-training/>.

⁴⁸ University of British Columbia. Digital Tattoo. Retrieved Oct. 1, 2011, from <http://digitaltattoo.ubc.ca/>

- **Evaluation of program:** Digital tattoo’s use of case studies is a double-edged sword, since it grounds privacy issues in real-life events, but they risk quickly becoming dated. Digital tattoo is unique amongst the digital literacy modules reviewed here because it proposes both the positive and negative aspects of privacy risks online for adults. Whereas other modules do not often address the pleasures of socializing online, digital tattoo spends equal time detailing how youth can take privacy risks (such as establishing a professional reputation online) and *succeed* because of them. Although rudimentary compared to games aimed at children, the interactive features of the site invite a higher level of engagement, and frequently use surprise to dispel user misconceptions about privacy rights and laws.

[Weekendpictures.ca](#)

- **Organization type:** student multimedia project, hosted by Ryerson university
- **Purpose:** “The goal of this project is to assist creators of user-generated content to prudently maximize their use of the Internet as a creative outlet. Specifically, Weekend Pictures is here to provide insight into the ways in which the sharing of photos, videos, rants, romances, banana bread recipes and the like via a networked online environment impacts privacy. While we're at it, we'll also explore what we even mean these days when we speak of privacy, where that increasingly blurred line between public and private can be found, whose responsibility is it to be worrying (or not) about the culling and commodification of personal information, and how concerns over the control of our digital data doubles extends beyond embarrassing party snaps.”⁴⁹
- **Description of program:** *Weekend pictures* is aimed at university students and hosts a collection of video interviews with various experts in law, commerce, and culture online. The focus is exclusively on the changing nature of privacy as it is being renegotiated in online environments. Rather than issue instructions and tips for managing one’s privacy, however, the videos invite the viewer to ponder the changing nature of privacy and associated implications. Moreover, the site is not presented with obvious pathways to certain topics, but grouped very loosely into themes.
- **Evaluation of program:** The site’s strength is the way it invites reflection on deep questions about the meaning of privacy. It also taps many expert speakers from Canada (Michael Geist) and the USA (danah boyd, Henry Jenkins) in a comparatively accessible style. In addition, it documents the case the OPC brought against *Facebook* for privacy violations. Overall, the site is akin to a non-linear documentary. It is much more reflective and philosophical than routine safety websites targeted to adults or children. This site borders on an academic treatment of the subject of privacy as opposed to a succinct tutorial for managing one’s privacy online.

⁴⁹ May. (2009). weekendpictures website. Retrieved Oct. 1, 2011, from <http://stw.ryerson.ca/others/s7may/index.html>

Trends in Canadian Digital Literacy/Privacy Education

Fragmentation versus Focus

The uses for the modern Internet are limited only by the imagination of the millions of users who log on daily. With the advent of broadband, the different applications of Internet technology have exploded. This capacity for innovation is what makes the Internet ripe for new forms of business and government, but also difficult to assign as the rightful purview of any single organization. The responsibility for providing broadband infrastructure, digital workplace skills, cyber security, and digital citizenship to Canadians is split among several organizations who do not work in concert. Hence, there are digital literacy initiatives scattered across different organizations that do not necessarily mesh together into a coherent effort to initiate new netizens into life online. The need for a clear vision for Canada's digital economy coordinated through a single body has been [recommended](#) both by MNet and also by recommendations made in 2010 by the Canadian Senate's Standing Committee on Transport and Communication.⁵⁰ The Senate Committee's first two recommendations read:

Recommendation 1

Canada should present a strategy for an inclusive digital society.

Recommendation 2

Canada should, in conjunction with the presentation of a strategy for an inclusive digital society, appoint a Minister for Digital Policy, who would take over the oversight of the strategy from the Minister of Industry.⁵¹

Both organizations note that a lack of focus and coordination has held Canada back from realizing its full potential in the digital realm compared to other countries like Britain,⁵² Australia⁵³ and Estonia.⁵⁴

⁵⁰ Media Awareness Network. http://www.media-awareness.ca/english/corporate/media_kit/digital_literacy_paper_pdf/digitalliteracypaper.pdf. | Standing Committee on Transport and Communications. <http://planforadigitalcanada.ca/>.

⁵¹ Standing Committee on Transport and Communications. <http://planforadigitalcanada.ca/>.

⁵² Department for Media Culture and Sport and Department for Business Innovation and Skills. <http://webarchive.nationalarchives.gov.uk/20100511084737/http://interactive.bis.gov.uk/digitalbritain/final-report/>.

⁵³ Department of Broadband Communications and the Digital Economy. http://www.acma.gov.au/WEB/STANDARD.PC/pc=PC_312364.

⁵⁴ Standing Committee on Transport and Communications. <http://planforadigitalcanada.ca/>.

Risks versus Rights

A corollary of scattered digital literacy efforts in Canada is a consistent skew towards educating about the privacy *risks* of life online. Educational efforts tend to be brief and hence, prioritize the most serious and unambiguous risks. Indeed, the shorter a website “tips section”, the more likely it will advise exclusively on these hazards. This translates into an abundance of resources which cover criminal activity like malicious code and child luring online, with concomitant solutions based on individual *risk avoidance*. These issues deserve priority because of the dangers involved, but taken together en masse they inadvertently paint the online landscape as a lawless frontier. To reason backwards from these kinds of digital literacy modules on safety and security, one would conclude that rights and protections do not exist online, especially where privacy is concerned. The reigning logic is that information technology has let the privacy genie out of the bottle, and no human intervention can put it back in. Individuals, therefore, are charged with managing their own privacy even when faced with powerful, unscrupulous, or even outright criminal organizations.

This generic approach may be due to the seeming *placelessness* of the Internet, and the impossibility of knowing one’s audience beforehand. Strategies to avoid risk like withholding information translate across borders; legal mechanisms vary from place to place. As an example, advice for protecting privacy offered on Microsoft’s regional USA, Brazilian, and Canadian portals is not substantially different and does not refer to government agencies charged with privacy.⁵⁵ In the end, abstract risks like the chilling of free speech and threats to democracy in the form of eroding privacy consistently get edged out by seemingly more urgent, concrete threats.

Given Canada’s privacy regulatory environment, including national and provincial privacy offices and stringent law governing personal information, there appears to be a risk that Canadians will shortchange themselves on their own privacy rights if educational efforts emphasizing only risk avoidance continue to eclipse efforts emphasizing rights. This is especially germane for Canadian businesses who wish to inspire confidence in consumers. Legitimate transactions with businesses online are an area where privacy rights regularly come into play, yet Canadians may not be aware of the protections they enjoy. A survey by the OPC confirms that 60 per cent of Canadians already feel their personal information is less secure now than 10 years ago.⁵⁶ This could be due, in part, to the prevalence of privacy education which sidelines individual rights and recourse mechanisms in favour of individual protection measures.

⁵⁵ Microsoft Brazil. <http://www.microsoft.com/pt-br/security/online-privacy/default.aspx> | Microsoft Canada. <http://www.microsoft.com/canada/protect/protect-your-family/> | Microsoft USA. <http://www.microsoft.com/security/online-privacy/prevent.aspx>

⁵⁶ Office of the Privacy Commissioner. (2010). Report on the 2010 Office of the Privacy Commissioner of Canada's Consultations on Online Tracking, Profiling and Targeting, and Cloud Computing. Retrieved Sept 1st, 2011, from http://www.priv.gc.ca/resource/consultations/report_201105_e.pdf

Information versus Instruction

Another consistent trend in digital literacy efforts distinguishes the ones aimed at adults versus children. Interventions are designed around issues pertinent to each population; children have access to many modules about social networking and invasive marketing whereas adults have more material geared towards fraud and identity theft. But beyond the content, the *mode* is also fixed by target audience. Many modules aimed at children are delivered as interactive tutorials which require feedback and performance to complete. They are also presented in an appealing, entertaining style with graphical flourishes to make them more like games than lessons. Digital literacy information aimed at adults is almost never delivered with an instructional focus, but merely presented textually, as if for reference purposes. Indeed, many of the ‘educational efforts’ for adults considered for this report would be more correctly labeled ‘FAQs’. They communicate, but they do not make a serious effort to *educate*.

The intent when enriching children’s modules with interactive features may primarily be to engage the audience, but a major secondary benefit is that the modules can be done in a self-directed fashion because they offer corrective feedback automatically. Adults may not need graphical, interactive embellishments to hold their attention, but digital literacy principals (including privacy) could be delivered more effectively using the same techniques typically reserved for children. One such example is the [e-parenting tutorial](#) authored by MNet.⁵⁷ Aimed at parents, it uses the same interactive, guiding features usually seen in children’s modules to enable self-directed learning for adults.

“Surveilled” versus “Surveilling”

A consistent but subtle bias is the position privacy educational modules assume on the part of the learner. Most privacy modules focus on equipping the learner to protect her own privacy from unwanted intrusions. Yet in a world where camera phones are ubiquitous and social networks regularly leak personal information despite users’ best efforts, these interventions only address half of the problem. Increasingly, privacy online is defined not just as barring access to personal information but as a bilateral agreement between those who are doing the surveilling and those who are being surveilled.

In one notorious case, an American police officer scoured *Facebook* for photos of students to incorporate into a presentation at their school.⁵⁸ Ironically, this privacy education effort ended up unleashing the very risks it sought to mitigate by giving unwanted exposure to students’ content, not to mention showing disrespect for students’

⁵⁷ Media Awareness Network. <http://www.media-awareness.ca/english/parents/internet/eparenting.cfm>.

⁵⁸ Misur. (2011). Old Saybrook High School makes privacy point; Some perturbed when real students shown in social-media slide show. Shoreline Times [electronic edition] Retrieved Oct 1, 2011, from <http://www.shorelinetimes.com/articles/2011/04/11/news/doc4da2f3cb5caae518276953.txt>

autonomy. The incident betrays a lack of privacy skills on part of even those who are well-intentioned, in this case school administrators and law enforcement.

Individuals are not the sole authors of their digital footprints online, nor can they exercise perfect control over the context, and online traces do not change to reflect their owner over time. Despite these caveats, those who are surveilling others online will use this kind of information to gauge individuals for any number of reasons. This practice is becoming routine, even though it may well lead observers to reach erroneous conclusions about individuals or to take personal information out of context. Very few of the interventions that were reviewed for this paper train individuals to critically assess what they find online or to even reflect upon the ethics of digging for private, albeit poorly guarded, information. Yet this is a crucial skill that applies to any Canadian, not only individuals such as human resources or college admissions officers. The phenomenon of peer-to-peer surveillance creates more and more privacy risks depending on context, and the lines of such contexts are increasingly blurred. As an example of the slippery slope between curating digital footprints and outright intrusion, the following online tutorial (<http://lifehacker.com/pipl/>) recommends using deep search engines to profile an individual and, if that fails, creating a fake social networking profile to gain access to their private pages.

The advent of deep search engines (such as [Pipl](#) and [Spokeo](#)) which curate an individual's digital footprints – and personal reputation management firms (such as [reputation.com](#)) which scrub personal information online for pay – are troubling from a democratic point of view. They augur a possible future where privacy risks are amplified as a direct and indirect source of revenue, making privacy a luxury rather than a right. The viability of this business model, however, hinges upon a failure of privacy management on part of those who are under surveillance *and a suspension of privacy ethics on part of those who are observers.*

International Digital Literacy Efforts

[UNESCO Media Information Literacy curriculum](#)

- **Organization type:** United Nations organization
- **Purpose:** “Generally, the [media information literacy] curriculum included in this package aims to help teachers explore and understand MIL by addressing the following:
 - Media ethics and info-ethics.
 - The capacities, rights and responsibilities of individuals in relation to media and information.
 - International standards (Universal Declaration of Human Rights), freedom of information, constitutional guarantees on freedom of expression,

limitations needed to prevent infringements of other people's rights (such as hate speech, defamation and privacy)"⁵⁹

- **Description of program:** UNESCO's MIL curriculum is a professional development document aimed at teachers across the world. Interestingly, where other programs skirt the topic of privacy rights for the sake of easier localization, UNESCO addresses this problem by appealing to *international rights and agreements* in order to situate digital literacy/privacy education in a rights-based framework while still appealing to an international audience. As a corollary, lesson modules focus very strongly on the political aspect of privacy, and even lessons about the commercialization of personal information are related back to this theme. The curriculum intends to familiarize teachers with the habits of youth online and then equip them to lead activities treating these issues through a critical, political lens. Examples of discussion questions/activities include:
 - Do you agree that privacy will have to be sacrificed to some extent? What are some of the implications? Why do you think it is not possible or desirable to regulate the Internet like television and radio? What would happen if the Internet were controlled by any one country or region of the world?⁶⁰
 - Select any social network website or software that you use. Experiment with the privacy settings. Search in the 'terms of use' for the terms 'privacy and security'. Do you think that the privacy safeguards are sufficient to help you avoid some of the risks described in this section? What are some of the repercussions when you put the privacy settings to the maximum level?⁶¹
 - Take an extract from *Facebook's* Statement of Rights and Responsibilities, Article 2,7 'Sharing Your Content and Information' (or from any other social network or even software that comes with your computer). In small groups, analyze whether the extract you selected may have an effect on someone's privacy and possibly security. How can users control the content posted on them online? Analyze and discuss who holds the copyright for certain types of content (photos, videos, etc.) posted on social networks or on the Web.⁶²
- **Evaluation of program:** This program's strength is its comprehensiveness. In a single training manual, issues of safety, discretion, and recourse mechanisms are all addressed. Privacy on the read-write Web is only a sub-theme within this manual which includes the entire gamut of media platforms, including public television, radio, and print. The program's weakness is that it still requires extra effort to situate the content in the local context. It is a template which outlines how teacher-trainers can develop local training modules for their peers (not directly to students). The curriculum sets goals for teachers and provides outlines

⁵⁹ Wilson, Grizzle, Tuazon, Akyempong and Cheung. (2011). Media and information literacy curriculum for teachers. UNESCO publication Retrieved Oct. 1, 2011, from <http://unesdoc.unesco.org/images/0019/001929/192971e.pdf>

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² Ibid.

for materials required to effect the training (such as statistics and reports about youth media habits in whichever country), but these must still be ‘filled-in’ by a local, competent teacher-trainer to flesh out the modules. This training program is designed with long-term reform in mind rather than lessons which can be delivered quickly ‘off the shelf’. In conditions where teachers are not allotted much professional development time this style of resource, no matter how rich and pertinent, may go under-used.

Britain

Key players

- [OfCom](#)
 - [getsafe online](#)
- [BBC](#)
 - [Firstclick](#)
 - [Go ON](#)
 - [Smokescreen](#)
 - [webwise](#)
- Child welfare groups
 - [know IT all](#)
 - [think U know](#)
- [QCDA](#)
 - [national curriculum](#)

Background

OfCom⁶³ plays a similar role to the CRTC in Canada: it is the national regulator for broadcast and telecommunications. A key difference, however, is that OfCom’s portfolio includes regulating the Internet *and* promoting media literacy (which includes digital media) for the entire population. The bureau facilitates media literacy programs by coordinating among authors/providers of such programs, partnering with them (such as *getsafe online*⁶⁴), and acting as a centralized portal for existing high-quality resources. OfCom both directs the UK population to media literacy training and acts as an endorsement to lend credibility to the best resources. Additionally, OfCom supports media literacy programs by regularly probing the nation’s media habits and competencies which help inform ongoing efforts.

The BBC is the UK’s national broadcaster, but has expanded into digital literacy education as well. *FirstClick*⁶⁵, *Go ON*⁶⁶ and *WebWise*⁶⁷ are all highly accessible,

⁶³ OfCom. OfCom website. Retrieved Oct. 1, 2011, from <http://www.ofcom.org.uk/about/>

⁶⁴ Get Safe Online. Get Safe Online website. Retrieved Oct. 1, 2011, from <http://www.getsafeonline.org>

⁶⁵ BBC. FirstClick Campaign website. Retrieved Oct. 1, 2011, from http://www.bbc.co.uk/connect/campaigns/first_click.shtml

appealing online digital literacy modules which introduce new users to the basics of using a computer and getting online. Whereas many beginners' programs elsewhere stop at running Windows, the UK beginners' programs include online privacy and security as basic, requisite user skills. They also refer back to government bodies to consult in case of problems online like offensive/illegal content and privacy intrusions. In the case of *Go ON*⁶⁸ the module can be done in a self-directed style or booked as an assisted tutorial at a nearby library. Both *Go ON*⁶⁹ and *FirstClick*⁷⁰ reach out to volunteers and encourage them to recruit new online initiates using the tutorial as a springboard.⁷¹ All the modules are sensitive to form and tone. They are mostly interactive, make use of video with human hosts or graphics, and speak to the audience in a friendly, approachable way. The intent is clearly to act as a bridge for an audience who may not only be unfamiliar with the topic, but also intimidated. The tutorials are clearly designed to instruct rather than stand as reference materials.

*Smokescreen*⁷² is a more specialized, interactive module aimed at teenagers and styled after a soap opera which plays out over a social networking site. It appears designed to compete directly with other forms of entertainment available online, and hence strives to be engaging as a game in its own right while also educating about issues of privacy and conduct online salient to youth. In this regard it is very similar to the *MyWorld* e-learning tutorial produced by MNet.⁷³

Child welfare groups are also active producers of digital literacy resources with a focus on privacy in the UK. *Know IT all*⁷⁴ and *thinkuknow*⁷⁵ are designed to fit into the UK's national curriculum, and focus on privacy mostly in the vein of safety for children and adolescents. These resources are very similar to those available in Canada.

Since the UK has a national curriculum, it has the power to set expectations for mastery of ICT across the country. The QCDA curriculum stresses integration of ICT across all subject areas, so the approach remains broad.⁷⁶ The most recent edition of this curriculum dates from 1999, and is currently being updated. However, key themes in the

⁶⁶ Becta and Department for Business Innovation and Skills. Go On -- Online basics course website. Retrieved Oct. 1, 2011, from <http://www.go-on.co.uk/online-basics>

⁶⁷ BBC. WebWise: a beginner's guide to using the internet. Retrieved Oct. 1, 2011, from <http://www.bbc.co.uk/webwise/>

⁶⁸ Becta and Department for Business Innovation and Skills. <http://www.go-on.co.uk/online-basics>.

⁶⁹ Ibid.

⁷⁰ BBC. http://www.bbc.co.uk/connect/campaigns/first_click.shtml.

⁷¹ Becta and Department for Business Innovation and Skills. <http://www.go-on.co.uk/online-basics>.

⁷² Channel 4. (2009). Smokescreen website. 2011, from <http://www.smokescreengame.com/>

⁷³ Media Awareness Network. (2010b). MyWorld: A digital literacy tutorial for secondary students. Retrieved Oct. 1, 2011, from <http://www.media-awareness.ca/english/catalogue/products/descriptions/myworld.cfm>

⁷⁴ ChildNet. (2005). Know IT All curriculum website. Retrieved Oct. 1, 2011, from <http://www.childnet-int.org/kia/>

⁷⁵ Child Exploitation and Online Protection Centre. (2009). Think U Know website. Retrieved Oct. 1, 2011, from <https://www.thinkuknow.co.uk/>

⁷⁶ Qualifications and Curriculum Development Agency. (2011). U.K. National Curriculum website. Retrieved Oct. 1, 2011, from <http://curriculum.qcda.gov.uk/index.aspx>

expected outcomes include responsibility when collecting information and sensitivity to one's audience when presenting it. Although not specifically connected to handling personal information, these core values are compatible with managing personal privacy online. The curriculum expects that by age 11 most students will have achieved sensitivity to context when sharing information. Overall, the curriculum is focused on using ICT to improve the quality of schoolwork from the earliest stages. Reflection upon ICT's impact in society (including ethical considerations such as privacy) is not expected for the majority of students until age 14.

Comparison

The biggest difference between British and Canadian digital literacy efforts is the enthusiasm British organizations have shown for attaining 100 per cent broadband penetration. Many of the programs listed above are swept up in the larger "race 2012" campaign to make Britain reach 100 percent uptake of broadband service. A recurring theme in these campaigns is to dispel newcomers' fears by empowering them to manage their privacy online. Even beginner tutorials do a thorough treatment of this topic to inspire confidence in new users, like seniors. In Britain, there is a strong union between delivering infrastructure and *enabling citizens to use it* as a natural follow-up. That mission is clearly yoked to the idea of government extending more services to more citizens online. Since major public institutions like OfCom and the BBC are delivering digital literacy education, especially to new initiates, they stake a strong presence on the Internet and use that presence to promote public interests like privacy and government services from the outset. For example, the *Go ON* tutorial, covers manipulating the mouse as well as the set of laws which govern personal information online.⁷⁷ Like Canada, the landscape of digital literacy resources in Britain covers privacy risks early but more quickly expands into higher-order areas like rights and duties relating to privacy online. Neither the CRTC nor Industry Canada clearly fulfils that same role of stewardship for upstart netizens.

Canada has many of the same ingredients as the U.K. in place: public access to broadband through C@P sites,⁷⁸ C@P youth interns and staff acting as trainers,⁷⁹ and a population of Internet hold-outs skewed in the seniors category,⁸⁰ but efforts to bring them together cohesively is more muted in Canada. Whereas developing digital literacy skills and implementing broadband are 'orphans' in Canada, the UK has achieved focus by clearly charging a national office (OfCom) with these tasks. The UK's chosen path parallels a recommendation made by a Canadian Senate Committee to create a Minister of Digital Policy to take ownership of these challenges and ensure their place in policy agendas.⁸¹

⁷⁷ Becta and Department for Business Innovation and Skills. <http://www.go-on.co.uk/online-basics>.

⁷⁸ Industry Canada. <http://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03127.html>.

⁷⁹ Ibid.

⁸⁰ Ibid. | Zamaria and Fletcher. (2007). Canada Online! The Internet, media and emerging technologies: Uses, attitudes, trends and international comparisons -- year two report. Report by the Canadian Internet Project Retrieved May 13, 2010, from <http://ciponline.ca/en/publications.htm>

⁸¹ Standing Committee on Transport and Communications. <http://planfordigitalcanada.ca/>.

In many ways, the UK is like a snapshot of a possible future for Canada's digital literacy strategy. Having implemented digital literacy programs years ago, the UK government is now at the stage of evaluating them for success. For example, a British report coined the notion that all Britons should bear a digital entitlement which includes not only access but also the right to basic digital literacy skills, including safety/privacy.⁸² This recommendation is designed to countervail the trend of accredited courses in ICT for professional advancement overtaking less formal, basic courses deployed for the general public. Even though the UK has committed many resources to digital literacy, their example shows that the path to full integration is not a sprint but a marathon that requires a sustained effort even in the wake of early success. Even as the UK closes down some digital literacy programs, it renews others to keep a baseline of digital literacy training consistently available to all its citizens.⁸³

Where youth are concerned, the UK has produced resources very similar to those available elsewhere. British youth enjoy online tutorials and resources comparable to those available in Canada with graphical flourishes and interactivity. They revolve around similar trends among youth in Canada such as social networking, gossip, cyberbullying, and predation. The major difference is that modules for *adults* in Britain also rely on feedback and performance just as often to engage the audience. Overall, resources from Britain have a level of polish that makes them very compelling and credible. The UK national curriculum puts less emphasis on digital citizenship (including handling personal information) compared to problem-solving skills using ICT. Yet the UK curriculum has broader reach than in Canada where digital literacy expectations vary drastically between provinces.

Overall, the UK's greatest strength in digital literacy education has been to define it as the responsibility of a federal office and aspiring to 100 per cent coverage of its population. This has prevented digital literacy efforts from being branded as workplace skills, leaving an important place for skills for life like privacy online.

USA

Key players

- [Digital Literacy Corps](#) (not-for-profit, student driven organization)
 - Net Literacy program
 - [SeniorConnects](#)
 - [SafeConnects](#)

⁸² Morris. (2009). Independent Review of ICT User Skills. Retrieved Sept. 1st, 2011, from <http://www.bis.gov.uk/assets/biscore/corporate/migratedd/publications/i/ict-user-skills2.pdf>

⁸³ Livingstone, Wang and Li. (2011). Dossier: Media literacy and the UK's Communication Act 2003. LSE Media Policy Project Retrieved Oct 1, 2011, from <http://blogs.lse.ac.uk/mediapolicyproject/2011/05/05/dossier-media-literacy-and-the-uks-communication-act-2003/>

- [Commonsense media](#) (national education not-for-profit)
 - [Commonsense curriculum](#)
- [Federal Communication Commission](#)
 - [Connecting America Report](#)
- [Federal Trade Commission](#)
 - [You Are Here](#) tutorial
- [GoodPlay project](#) (Harvard School of Education)
 - [Our Space](#)

Background

Although the FCC has produced an extremely detailed roadmap of how it might achieve total broadband penetration, dubbed *Connecting America*, the plan is not binding.⁸⁴ In that sense the Canadian and American federal governments are at a similar stage of commitment to universal adoption of broadband and digital literacy.⁸⁵ The idea of universal digital literacy enjoys popular support from many stakeholders, but there is little concrete commitment to it.

In the absence of mandated digital literacy programs, educational modules have been produced by grassroots organizations and not-for-profit organizations. Although the contents are freely available online, implementation remains at the discretion of local teachers and community members.

The Digital Literacy Corps⁸⁶ is a student-lead, grassroots movement which has four branches, including one devoted to youth digital literacy and another aimed at seniors. The organization is based in Indiana but has grown to include chapters across the country. They arm their volunteers with a repository of student-authored trainer resources like presentations and videos, allowing local student ambassadors to engage their communities in digital literacy education. Privacy is a major component of these resources, which have been designed for the benefit of the community rather than the workplace. A consistent bias in the curriculum is towards privacy for the sake of safety, as opposed to the civic importance of online privacy.

Commonsense media⁸⁷ and the GoodPlay project⁸⁸ have produced many lesson plans dealing with responsible behaviour online. The Commonsense modules related to privacy are aimed at students between Grades 6-8 while the GoodPlay project's *Our Space* curriculum is appropriate for high school students. The content covers issues of safety related to disclosure online, such as contact with strangers, but also broaches complex

⁸⁴ Federal Communications Commission. <http://www.broadband.gov/download-plan/>.

⁸⁵ Ibid. | Standing Committee on Transport and Communications. <http://planforadigitalcanada.ca/>.

⁸⁶ Digital Literacy Corps. (2003, 2010). Digital Literacy Corps website. Retrieved Oct. 1, 2011, from <http://www.digitalliteracycorps.org/index.html>






⁸⁷ Common Sense Media. Common Sense Media education website. Retrieved Oct. 1, 2011, from <http://www.common sense media.org/educators>

⁸⁸ The GoodPlay Project and Project New Media Literacies. (2011). *Our Space: Being a Responsible Citizen of the Digital World* casebook. Retrieved Oct 1, 2011, from <http://newmedialiteracies.org/our-space-being-a-responsible.php>

ethical issues of privacy as well. In addition to lessons on managing one’s own digital footprint, both curricula feature a lesson which simulates profiling candidates for a reality TV show. This puts students in the place of a person who is surveilling others and invites them to reflect on the responsibility inherent in that position.

The GoodPlay curriculum transitions seamlessly from personal privacy management online into the civic importance of privacy and anonymity. In senior level lessons the importance of privacy is linked back to foundational American legal documents, and the ranges and uses of privacy using recent, digital, American case-studies are presented. An excerpt is reproduced below:⁸⁹

Anonymity in Different Scenarios

Anonymous	Banksy	OpEd	MySpace	Unabomber
				
An online group calling itself “Anonymous” has taken up protests against the controversial Church of Scientology. When	Pseudonymous graffiti artist “Banksy” has spread his art on buildings worldwide—often with a theme of social	Many newspapers have an opinions page, on which anonymous authors state their opinions—unedited by the newspaper’s	When creating a MySpace account, users must decide on a username as well as how much information to reveal about themselves.	Theodore Kaczynski is an anarchist anti-technologist who mailed bombs to various targets from 1978 to 1995. He signed the

The Federal Trade Commission has produced an appealing module focusing on consumer rights, which includes major sections on consumer privacy, especially as it applies to online commerce.⁹⁰ *You Are Here* covers both protecting *and* bartering in one’s personal information with businesses. Rather than encouraging players to lock down their information at all times, the various games teach players to put a price on their personal information and trade it judiciously only for things they want and only if the deal is fair to them. The habit of reading terms of use in all situations is strongly emphasized across activities. The tutorial is not only authored by the FTC, but frequently includes the role of the FTC as part of the game content. It covers both personal measures to protect oneself as a consumer but also teaches players how to seek recourse with outside authorities, including for intrusions into one’s privacy.

Comparison

Although the USA has not yet coordinated a comprehensive, national digital literacy effort,⁹¹ it has produced impressive grassroots movements, even though their

⁸⁹ Ibid.

⁹⁰ Federal Trade Commission. *You Are Here* game. Retrieved Oct. 1, 2011, from <http://www.ftc.gov/bcp/edu/microsites/youarehere/site.html> - /mall-entrance

⁹¹ Federal Communications Commission. <http://www.broadband.gov/download-plan/>.

coverage is not evenly dispersed across the country. Coincidentally, such movements are a recommendation outlined in *Connecting America*,⁹² although there is not yet any concrete federal support for them. As with any volunteer-based organization, it remains to be seen if the current Digital Literacy Corps⁹³ can endure without long-term, formal support. In Canada, C@P sites experience turn-over in their volunteer base, but this is remedied by ongoing institutional support and permanent staff which exist between cohorts. On the other hand, the Digital Literacy Corps has the advantage of functioning not just as an organization, but also as a ‘loose web’; any individual who partakes of DLC resources, freely available online, to educate their community is de facto fulfilling the organization’s aims even if they are not a full-fledged member. C@P sites do not have as many common resources to promote that kind of continuity and reach.

American educational organizations have produced high-quality classroom materials.⁹⁴ These resources are similar to those produced in Canada,⁹⁵ in that they are localized and ready to use ‘off-the-shelf’ with little outside preparation by teachers. In recent years, American educational resources have evolved from a focus on risk to youth and now also include serious treatment of privacy in its political aspect. As in Canada, use of these materials remains a matter of teachers’ discretion.

Connecting America also recommends creating an online digital literacy portal with self-directed resources.⁹⁶ Although there are no American examples of comprehensive, interactive beginner’s courses such as *WebWise* or *Go ON*,⁹⁷ the FTC’s *You Are Here* tutorial⁹⁸ covers many issues related to privacy online from a consumer’s point of view. It is noteworthy because its tone is not only accessible to the targeted youth audience, but also very neutral. The game seeks to demystify marketing practices which deal in personal information to inspire confidence on part of consumers rather than uncritical fear of privacy intrusions. Most importantly, the game adroitly mentions the FTC and its role to players several times, reminding them to seek recourse when they feel their privacy/consumer rights are not being respected. Canadian marketers theorize that consumers will be more at ease once they are better educated about how behavioural marketing really works. *You Are Here* is a good choice to emulate for that purpose. Although the IAB in Canada has committed to more educational outreach for consumers, it remains to be seen if it will take the time to craft engaging, rich tutorials on the topic or follow the example set by the CMA.⁹⁹

⁹² Ibid.

⁹³ Digital Literacy Corps. <http://www.digitalliteracycorps.org/index.html>.

⁹⁴ Common Sense Media. <http://www.common Sense Media.org/educators>. | The GoodPlay Project and Project New Media Literacies. <http://newmedialiteracies.org/our-space-being-a-responsible.php>.

⁹⁵ Media Awareness Network. <http://www.media-awareness.ca/>. | Steeves. <http://www.idtrail.org/InYourI/>.

⁹⁶ Federal Communications Commission. <http://www.broadband.gov/download-plan/>.

⁹⁷ BBC. <http://www.bbc.co.uk/webwise/>. | Becta and Department for Business Innovation and Skills. <http://www.go-on.co.uk/online-basics>.

⁹⁸ Federal Trade Commission. <http://www.ftc.gov/bcp/edu/microsites/youarehere/site.html> - /mall-entrance.

⁹⁹ Canadian Marketing Association. <http://www.the-cma.org/>.

The USA has not guaranteed digital literacy education for its entire population, but it is home to world class universities, foundations and non-profit groups. Overall, the USA's greatest asset is selected rich educational resources, including deep treatments of privacy, which are well-positioned to be deployed across the country once the political will to spread them materializes.

Australia

Key Players

- [Australian Attorney General](#)
 - [Protect Yourself Online](#) (manual)
- [Australian Communication and Media Authority](#)
 - [Cybersmart program](#)
 - [Access](#) game
 - [Cyberquoll](#) game
 - [Hector's world](#) movies
 - [CyberNetrix](#) game
 - [Tagged](#) movie
- [Department of Broadband, Communications and the Digital Economy](#) (DBCDE)
 - [National Broadband Program](#)
 - [Stay smart](#) online program
 - [Budd-E](#) games
 - Fraud quizzes
 - Tip sheets

Background

Australia is frequently compared to Canada in geographical terms. The sparse population over long distances in both countries makes deploying infrastructure a challenge. While Canada has embraced private-sector solutions to deliver broadband, Australia's DBCDE has committed to implementing a nationally owned broadband network.¹⁰⁰ Like the USA, Australia envisions far-reaching benefits for universal broadband for business, education, and healthcare, with the major difference being that Australia has committed funding to the project and set associated goals to meet for 2020, including raising the country's standing in OECD broadband penetration measures.¹⁰¹

In the realm of education, Australian policy documents tend to focus on improving distance learning for rural schools via ICT and saturating students with hardware rather than a transformative digital literacy curriculum. In short, the focus appears to be using ICT to support the existing learning agenda, with exposure to ICT

¹⁰⁰ Department of Broadband Communications and the Digital Economy. http://www.acma.gov.au/WEB/STANDARD.PC/pc=PC_312364.

¹⁰¹ Ibid.

built-in seamlessly.¹⁰² The DBCDE aims to routinize ICT-use for all students to enable a viable digital commons and marketplace in the future.

In concert with DBCDE efforts, Australia's broadcast regulator has promoted digital literacy by producing an array of interactive games. Australian youth enjoy access to a suite of online digital literacy games tailored very closely to developmental age ranges, even children as young as 6 (*Hector's world*) via ACMA.¹⁰³ These games teach to the novel opportunities and risks youth face online. ACMA's *cybersmart* library of games is impressive because they cover the spectrum of school ages and consistently foreground privacy as a central theme.

Research by ACMA confirms that school-aged children receive the glut of attention where digital literacy efforts are concerned.¹⁰⁴ Part of the national broadband plan includes grants to create hubs for Internet access for communities¹⁰⁵ as well as special grants for senior training kiosques, but the lion's share of digital literacy programming is still devoted to youth.¹⁰⁶ Educational modules for adults in Australia focus on computer security, consumer safety, protecting the privacy of children and avoiding online scams. The Australian Attorney General has authored an all-in-one guide for adults treating these themes which reflects the Australian regulatory context.¹⁰⁷ The DBCDE has also created interactive quizzes training adults to identify common online scams and its own interactive tutorials for children and adolescents focused on privacy,¹⁰⁸ which overlap with much of the content of ACMA's games.

Comparison

In many ways, the government's 'digital education revolution' program,¹⁰⁹ which aims to have a 1:1 student/computer ratio for high-school students resembles a much more ambitious version of Canada's now closed SchoolNet program (a partnership initiated by [Industry Canada](#) in 1999 to promote the effective use of ICT in Canadian libraries and schools). There is less emphasis on equipping teachers to innovate using

¹⁰² Ibid.

¹⁰³ Australian Communications and Media Authority. (2009b). cyber(smart :) website. Retrieved Oct. 1, 2011, from <http://www.cybersmart.gov.au/>

¹⁰⁴ Australian Communications and Media Authority. (2009a). Audit of Australian Digital Media Literacy Programs. Retrieved Sept 1st, 2011, from http://www.acma.gov.au/webwr/_assets/main/lib310665/audit_of_aust_digital_media_literacy_programs.doc

¹⁰⁵ Department of Broadband Communications and the Digital Economy. http://www.acma.gov.au/WEB/STANDARD.PC/pc=PC_312364.

¹⁰⁶ Australian Communications and Media Authority. http://www.acma.gov.au/webwr/_assets/main/lib310665/audit_of_aust_digital_media_literacy_programs.doc.

¹⁰⁷ Australian Attorney General. (2010). Protect yourself online | Stay smart online. Retrieved Oct. 1, 2011, from http://www.staysmartonline.gov.au/news/news_articles/regular/protect_yourself_online

¹⁰⁸ Department of Broadband Communications and the Digital Economy. (2011). Budd-E game. Retrieved Oct. 1, 2011, from <https://budd-e.staysmartonline.gov.au/>

¹⁰⁹ Department of Broadband Communications and the Digital Economy. http://www.acma.gov.au/WEB/STANDARD.PC/pc=PC_312364.

ICT compared to the thrust to inject schools with hardware. This imbalance proved a major hurdle in Canada¹¹⁰ and it remains to be seen how Australian teachers adapt.

Interestingly, Australia's info-hub plan is also similar in outline to the Canadian C@P program from the SchoolNet era. C@P was originally intended to entice Canadians who partook of it to upgrade to home access soon after, driving private sector subscriptions and expansions to the network gradually. In contrast, Australia is leap-frogging towards ubiquitous home access in one step with a nationally owned broadband network. Yet they are also rolling out extra funding for community information hubs to complement this increased grade of access, very similar to C@P sites. The hubs are mainly proposed for their educational, digital literacy benefits. They are styled not merely as a stopgap but an important, complementary effort meant to work in concert with increased grades of home access.

The offerings for adults to acquire digital literacy skills in Australia appear to suffer the same problems as Canada. With the exception of quizzes on fraud produced for the DBCDE, Australian resources for adults are informational rather than instructive. Given ACMA's strong coverage of children's privacy concerns online, DBCDE's *Budd-E* modules seem redundant. The effort might have been better directed to balancing the wealth of children's resources with more engaging tutorials aimed at adults or seniors who are comparatively under-served.

Overall, the strength of Australia's digital literacy environment is its attention to the youngest Web users and its focus on quotidian privacy concerns. Australia's focus on young children avoids the trend of treating children exclusively as lightning rods for the worst possible risks (such as child luring) and equips them instead to negotiate a range of common privacy hurdles online.

Brazil

Key Players

- Federal government
 - [National Broadband Plan](#)
- Telecentros
 - [Center for Digital Inclusion](#) LAN-houses
- [Safernet.br](#)

¹¹⁰ Plante and Beattie. (2004, Jun 4). Connectivity and ICT integration in Canadian elementary and secondary schools: First results from the Information and Communications Technologies in Schools Survey, 2003-2004. Retrieved Nov. 17, 2008, from <http://dsp-psd.pwgsc.gc.ca/Collection/Statcan/81-595-MIE/81-595-MIE2004017.pdf>

Background

Brazil has a distinct profile compared to the Anglophone nations reviewed above. On the international stage, Brazil is the world's 9th largest economy (and the clear leader among all other South American countries) as well as boasting nearly 76 million Internet users; the fourth largest population of Internet users in the world.¹¹¹ At this level, it is in the same league economically as many countries in the global north. Yet these national-level metrics belie a deep, wide inequality within the country's borders. Income distribution in Brazil is ranked as the 12th most unequal in the world.¹¹² Furthermore, there is a clear skew in population demographics: one third of Brazilians are under 18 and 38 per cent live below the poverty line.¹¹³ Homicide accounts for 45 per cent of the deaths of Brazilians aged 12-18, and exploitation of children in child prostitution is a thriving business.¹¹⁴

Among Internet users, at-home access only recently surpassed shared access from for-pay LAN houses in 2009.¹¹⁵ Home-access remains limited to the wealthier segments of the population while the poor continue to rely on a combination of for-pay and shared community access points. Brazilian efforts promoting digital literacy and privacy online reflect these difficult conditions.

Brazil's national broadband plan (Um Plano Nacional para Banda Larga o Brasil em Alta Velocidade) is focused on improving the infrastructure and reducing the cost of broadband across the country. The plan has revived the state's telco (Telebras) to manage a national backbone of fixed and mobile broadband to be parceled out wholesale to locally-run ISP's. The stated aims of this program are to redress gaps in digital inclusion, extend the reach of e-Government, and spur economic growth. The national broadband plan does not make any provision for digital literacy education nor privacy.¹¹⁶

Digital literacy skills are delivered locally via a mosaic of communal access points. So-called 'telecentros' have diverse partners and sponsorships spanning all levels of government, the private sector, and non-profits,¹¹⁷ but they all take a similar shape at the ground-level. Namely, providing both free access to Internet-enabled PC's and

¹¹¹ Central Intelligence Agency. (2011). The World Factbook (Brazil). Retrieved Oct 1, 2011, from <https://www.cia.gov/library/publications/the-world-factbook/geos/br.html>

¹¹² Ibid.

¹¹³ UNICEF. Information by Country (Brazil). Retrieved Sept 1st, 2011, from <http://www.unicef.org/infobycountry/brazil.html>

¹¹⁴ Ibid.

¹¹⁵ Spotlight on Brazil. (2011). Digital Inclusion in Brazil: the CDI, Telecenters & LAN houses. Spotlight on Brazil (webpage) Retrieved Oct 1, 2011, from <http://www.spotlightonbrazil.com/2011/09/14/digital-inclusion-in-brazil-the-cdi/>

¹¹⁶ Centro de Estudos sobre as Tecnologias da Informação e da Comunicação. (2010). TIC DOMICÍLIOS e USUÁRIOS 2010 - ÁREA URBANA. Retrieved Oct 2, 2011, from <http://www.cetic.br/usuarios/tic/2010/rel-int-04.htm>

¹¹⁷ Spotlight on Brazil. <http://www.spotlightonbrazil.com/2011/09/14/digital-inclusion-in-brazil-the-cdi/>.

guidance to use them. They are also sites of community engagement and encourage the use of ICT to remedy community problems. In 2005, Brazil counted 7, 986 telecentros provided by 95 known organizations.¹¹⁸

The Center for Digital Inclusion¹¹⁹ is a not-for-profit network of telecentros which aims to create self-sustaining hubs. While offering free access to ICT hardware and connectivity, they generate revenue by offering ICT skills training and serving local business needs. Such centres aim to increase community participation and engagement via ICT, but their main objective remains focused on improving the material conditions of their users. CDI may appear to be an access point in outline, but the network's mission is manifold given the many urgent problems facing impoverished Brazilian youth. As an example, CDI diverts youth away from for-pay LAN-houses which, though popular with youth, are also dens of vice which are not necessarily appropriate for them (a LAN-house is similar to an internet café, and caters to gamers and recreational internet use).

*Safernet.br*¹²⁰ is a national not-for-profit which delivers digital literacy education. Modules take the form of keynote presentations suitable for community leaders and online presentations aimed at a youth audience. However, their focus is decidedly on preventing crime online. Their position is emblematic of other educational efforts in Brazil which they collect and host from a central portal. Mixed in amongst the crime prevention efforts, these workshops do address privacy skills such as concealing one's identity, but these tips usually refer back to the threat of coming to harm rather than more benign breaches of privacy. *Safernet* and CDI have both also partnered with a major Brazilian ISP, GVT, to produce a branded digital literacy campaign. The associated site has 3 versions: for children, parents, and teachers, and covers a range of online pitfalls with a focus on privacy. The material is embellished with cartoons, and features a collection of short comics illustrating common problems online which, while not interactive, are accessible to younger audiences by dint of the medium.

Comparison

Between Brazil and Canada, digital literacy interventions have similar concerns in outline such as safety for children, avoiding fraud, and equipping future workers with marketable skills. What distinguishes these outwardly similar interventions is their urgency based on the material conditions of the poor in Brazil. Digital literacy interventions in Brazil almost all refer back to the severe gap in wealth endemic to the country. The spectre of child luring is aggravated in Brazil by a real industry trafficking in child prostitution.¹²¹ Users of community telecentros are encouraged by the sponsoring organizations to leverage these resources to tackle community issues and also break into the ranks of ICT professionals with their newfound skills. Even for-pay LAN-houses

¹¹⁸ Ibid.

¹¹⁹ Center for Digital Inclusion. The Center for Digital Inclusion (English language homepage). Retrieved Sept. 1st, 2011, from <http://cdiglobal.org/>

¹²⁰ Safernet Brasil. (2008). Safernet Brasil | Who we are. Retrieved Oct 1, 2011, from <http://www.safernet.org.br/site/institucional>

¹²¹ UNICEF. <http://www.unicef.org/infobycountry/brazil.html>.

become de facto sites of community engagement in areas not served by a public telecentro.

Although telecentros were originally designed to ensure equal access to ICT between the wealthy and poor, they have evolved to become community hubs and sites of formal digital literacy instruction. Whereas Canada's C@P program was quickly undercut by rising rates of home broadband access, Brazilian public access centres have continued to thrive even in the wake of climbing home access rates. Although home access has been held up as the holy grail of Internet access in international surveys,¹²² Brazil's model of community access proposes fringe benefits which have been discounted in Canada. Providing access to informal help from peers and formal help from telecentro staff when navigating online may be an important benefit of the telecentro model, even after home access barriers are lowered.

What stands out about Brazil's model is that it has established a strong electronic commons anchored in a physical, public commons (telecentros). By comparison, Canada's model of Internet diffusion moved very rapidly from shared access to home use. It remains to be seen if the telecentro model, which has become firmly ingrained in Brazilian communities, will endure once home access becomes more common. Secondly, GVT's commitment to corporate citizenship is unique amongst other corporate digital literacy efforts reviewed for this report. Canadian companies have sponsored digital literacy materials, such as Bell Canada and the [webaware](#) site,¹²³ but there are no Canadian companies who enmesh their corporate identity so strongly with a digital literacy campaign, nor host it as part of their own corporate site. Wedding a digital literacy campaign to such an obvious point of contact as an ISP may be an effective means of reaching more netizens with privacy education at an ideal, 'just in time' juncture.

Trends across countries

Across all countries profiled here, there are a few trends. Namely, youth are a prime target for digital literacy interventions, including privacy skills. This may be due to a generational bias which marks youth as the inheritors of a digital future and adults as somehow excused from it. Yet digital literacy interventions that are in place do not anticipate future risks, but rather are constantly scrambling to stay up to date with the *present*. Adults are not immune to privacy vulnerabilities, yet they are consistently made a lower priority for digital literacy skills development. This is less true where skills for the workplace are concerned, but the development of life skills, such as privacy competency, are not generally being targeted towards adults unless they are constrained to security. Outside of broadly defined groups such as youth, adults, and seniors, there is little sensitivity to other vectors of identity (such as immigrant status or gender) in digital literacy programs, even though these factors may impact literacy.

¹²² Zamaria and Fletcher. <http://ciponline.ca/en/publications.htm> <http://ciponline.ca/en/publications.htm>.

¹²³ Media Awareness Network. (2010c). webAware. Retrieved Oct. 1, 2011, from <http://www.bewebaware.ca/english/default.html>

Despite the possibility of delivering digital literacy education exclusively online, all the countries profiled here still place a high premium on face-to-face instruction, especially for seniors. This style of intervention has the added advantage of being responsive to a user's individual goals when using a new technology and may also serve a calming function for initiates who are truly intimidated by ICT. It seems that no matter how advanced or seamless networks become, human ambassadors still add value at least to the early adoption process.

Whether or not Internet adoption is targeted for 100 per cent of a country's population appears to change the character of digital literacy education efforts. Namely, countries that aim for 100 per cent uptake can plan contingent benefits like delivering certain services such as voting or medical records entirely online. Aiming for 100 per cent uptake seems to be associated with more commitment to digital skills for life such as privacy management, whereas countries which continue to treat broadband as a personal choice limit digital literacy's relevance, typically to workplace skills.

Recommendations

Based on the programs and initiatives that have been reviewed for this paper, we recommend the following:

- 1. Establish a set of privacy competencies that are needed by all Canadians to manage their personal information online**

At present, there are many privacy tutorials and tips scattered across the Web or available as part of other interventions. Each of these offers a piece of a larger puzzle which has yet to be envisioned in a finished form. Producers of online privacy education modules would benefit from a more authoritative set of privacy competencies to inform their efforts. It would be beneficial if there could be a more coordinated approach to improving online privacy literacy.

While the various players all have a role to play in developing privacy competencies, the OPC is well placed to undertake further work in this area as part of its strategy to contribute to the development of the broader notion of digital citizenship, which it discussed as part of the recommendations it made in its [submission](#) to the Government of Canada's Digital Economy Consultation in 2010.

2. Promote privacy competencies as an entitlement for all Canadians

Related to the above recommendation, MNET believes that privacy competencies should be promoted as a *right* for Canadians.

This recommendation is based on findings from the UK where there has been a more enduring, focused effort to spread digital literacy and ICT resources to the entire population. Despite the UK's success in widely promoting digital literacy, over time formal accredited courses have ousted shorter, more casual ones. In general, formal courses upgrade workplace digital skills while digital life skills (like online privacy) are the purview of casual courses. To counter this trend, a UK reviewer has suggested that skills for life (such as online privacy) be considered a 'digital entitlement' for all UK adults to ensure training for these skills remain available alongside more marketable digital skills.¹²⁴

3. Integrate issues of data protection and democracy in educational modules

Compared to the threat of online fraud or intrusive marketing, the erosion of democracy is a distant and abstract corollary of changing privacy practices online. However, critical events in recent history reveal the central importance of the value of privacy to the health of a democracy.¹²⁵ Issues surrounding data protection and preventing cyber-crime enjoy abundant, short, technical resources freely available online. However, in order to fully equip Canadians to manage privacy online, more abstract privacy threats must be included as well.

OPC may wish to develop privacy modules which take a holistic approach and integrate well-known privacy threats (like cyber-crime) with more abstract ones (like the importance of anonymity for free speech) to ensure the latter gains more exposure.

Similarly, it would be beneficial to integrate information about the OPC itself and other government bodies charged with protecting privacy, to reinforce the notion that individuals have recourse to outside authorities when individual measures prove inadequate. The UK's *Go ON* module is an outstanding example of enmeshing a range of privacy risks and rights into a single module.¹²⁶

Recommendations 1-3 combined intend to redress the current focus on privacy safety risks in existing educational modules. Canadians would benefit from the

¹²⁴ Morris. <http://www.bis.gov.uk/assets/biscore/corporate/migratedd/publications/i/ict-user-skills2.pdf>.

¹²⁵ OpenMedia.ca. (2011). 70,000+ strong petition sways government plan. Retrieved Oct 1, 2011, from <http://openmedia.ca/news/70000-strong-petition-sways-government-plan> | Stoddart. (2011). Letter to Minister of Public Safety Vic Toews. Retrieved Oct 26, 2011, from http://www.priv.gc.ca/media/nr-c/2011/let_111027_e.cfm-contenttop

¹²⁶ Becta and Department for Business Innovation and Skills. <http://www.go-on.co.uk/online-basics>.

inclusion of content addressing privacy rights, recourse mechanisms, and the civic importance of privacy within the modules.

4. Focus on adults

Youth enjoy a wide range of interventions tailored to their online privacy needs. Adults, on the other hand, are more often addressed in interventions *as parents* overseeing their children's privacy. In other cases, they may be addressed as online consumers with vulnerable banking information. The range of issues deemed relevant for adults is surprisingly narrow compared to youth. This is problematic because although youth have lead the charge into many activities online, adults and seniors are beginning to follow and suffer the same privacy pitfalls that were previously considered 'online youth problems'.¹²⁷ Many interventions targeting youth deserve adult counterparts which appeal to this audience.

Additionally, adults occupy a position of power as those who are conducting surveillance, an issue that is not being addressed by privacy interventions. The majority of interventions are written defensively; that is, to evade undue privacy intrusions from others. Adults, on the other hand, are frequently embroiled in privacy problems from a position of power when it comes to surveillance, be it as a parent, a college admissions panel, or a police officer. Interventions targeted to adults should take into consideration questions of acting responsibly and respecting the privacy of others who are in subordinate positions. As the digital footprints of Canadians grow and spread, contextualizing this kind of personal information will no longer be the exclusive purview of hiring managers and corporate privacy officers, but relevant to any adult in a position of power.

Compared to the narrow resources tailored for adults, seniors are targeted even less. When development of digital literacy skills and privacy competencies for seniors is discussed, it is limited exclusively to fraud prevention. Whereas the UK has been proactive in producing accessible training materials for seniors¹²⁸ and in efforts to achieve 100 per cent uptake of broadband, a recent report by Industry Canada concluded simply that a cohort of Canadians including many seniors may never go online.¹²⁹ This could be redressed either by authoring material especially for seniors, or by promoting existing resources specifically towards them. The UK's multiple platform approach, using a national broadcaster as a bridge to usher its audience online¹³⁰ may be a good model for Canada.

¹²⁷ Zamaria and Fletcher. <http://ciponline.ca/en/publications.htm> <http://ciponline.ca/en/publications.htm>.

¹²⁸ BBC. http://www.bbc.co.uk/connect/campaigns/first_click.shtml. | BBC.
<http://www.bbc.co.uk/webwise/>. | Becta and Department for Business Innovation and Skills.
<http://www.go-on.co.uk/online-basics>.

¹²⁹ Industry Canada. <http://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03127.html>.

¹³⁰ BBC. http://www.bbc.co.uk/connect/campaigns/first_click.shtml. | BBC.
<http://www.bbc.co.uk/webwise/>. | Becta and Department for Business Innovation and Skills.
<http://www.go-on.co.uk/online-basics>.

5. Support students

Although in theory students have access to many privacy education resources, including rich interactive content, there is no national-level imperative to teach students to manage their privacy online, even though youth have underlined this as a major topic of interest.¹³¹ This is part of an ongoing lack of across-the-board digital literacy education more generally in Canada.¹³²

Although federal organizations have proclaimed support for more digital skills training in schools, this support has been focused on developing specialized ICT *workers* needed by industry rather than general empowerment of all Canadian students.¹³³ The emphasis is therefore on *marketable* skills for a *subgroup* of Canadians. The OPC may wish to balance this discourse about Canada's digital advantage by enhancing its ongoing efforts in support of ongoing digital literacy education for *all elementary and secondary-level* students, especially for life skills like managing privacy. Encouraging digital literacy and privacy management as an official part of the curriculum would be a way of helping schools be accountable to stakeholders.

6. Author privacy resources which adapt to many contexts

Many venues where online privacy skills are taught, such as C@P sites, bear a heavy burden of both developing custom digital literacy/privacy modules and also teaching them. OPC may wish to develop more privacy modules which can be delivered as completely self-directed online activities useable at home or, alternately, as assisted activities at C@P sites. Pre-packaged resources would allow instructors to devote more time to serving their clients. The OPC's recent [Youth Presentation package](#) is an example of work in this area.

Future resources should take into account the recommendations within this report. They should cover the full range of online privacy issues – from avoiding spam to protecting free speech – in an integrated style. They should identify the OPC and its provincial counterparts as resources to protect one's privacy beyond individual measures. They should speak both to protecting one's own privacy as well as the responsibility inherent in exposure to the personal information of others. The OPC may wish to partner with other organizations to make such a module a complete beginner's tutorial expanding beyond privacy online, such as the UK's *Go ON* module.¹³⁴

¹³¹ Media Awareness Network. (2005). Phase II Student Survey. Young Canadians in a Wired World Retrieved March 5, 2008, from <http://www.media-awareness.ca>

¹³² Media Awareness Network. http://www.media-awareness.ca/english/corporate/media_kit/digital_literacy_paper_pdf/digitalliteracypaper.pdf. | Standing Committee on Transport and Communications. <http://planforadigitalcanada.ca/>.

¹³³ Industry Canada. <http://www.cipo.ic.gc.ca/eic/site/ic1.nsf/eng/05542.html>.

¹³⁴ Becta and Department for Business Innovation and Skills. <http://www.go-on.co.uk/online-basics>.

7. Support C@P sites as venues for privacy education

The C@P program is unique because it delivers digital literacy education at the local level, yet enjoys federal financial support from Industry Canada. Currently, the future of the C@P program is uncertain due to the success of market-driven efforts to deliver broadband for purchase to individual homes. While this undercuts the need for public *access* points, C@P centres are still serving their communities in an *educational* capacity. Furthermore, they successfully reach marginalized groups like seniors, the unemployed, new immigrants, and rural Canadians.¹³⁵ As just one example, the C@P manual issued by IC has not been updated in 10 years, and could be an ideal vehicle to establish a digital literacy curriculum including privacy.¹³⁶

8. Promote and support existing, high-quality resources

There are already a handful of outstanding privacy education modules freely available online. However, as with all Web content, they risk either growing obsolete or simply going offline altogether. As an alternative to authoring completely new resources, OPC may wish to consider promoting these tools in addition to their own. Examples include digitaltattoo.ca, weekendpictures.ca, and [in your I!](http://inyourI.com)

9. Promote national focus for digital literacy

In the case of the UK, it has been shown that charging a single organization with digital literacy can coordinate and focus disparate efforts and achieve greater results than distributed approach.

MNET supports the Senate Committee's recommendation to create a Minister of Digital Policy.

¹³⁵ Grant. (2010, January 19). The new library: 'not just about books anymore'. The Globe and Mail Retrieved May 10, 2010, from <http://www.theglobeandmail.com/news/national/toronto/the-new-library-not-just-about-books-anymore/article1436999/> Industry Canada. <http://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03127.html>.

¹³⁶ Industry Canada. (2000). CyberCamp Handbook (C2-428/2000-5E). Retrieved Oct. 1, 2011, from <http://youthontario.net/cybercamp.doc>

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APPENDIX A

The following privacy competencies are relevant for every Canadian as part of digital literacy:

1. Awareness of personal information being treated as a commodity
2. Habits of restraint and discretion when disclosing online
3. Ability to evaluate a website's information management practices and ability to use privacy settings
4. Appreciation of vulnerability of vital information (geo-location, birth date, SIN)
5. Attention to personal reputation management
6. Care when handling others' personal information
7. Skepticism and restraint when seeking personal information about another online
8. Knowledge of privacy rights and recourse mechanisms

APPENDIX B

Industry bodies and their stance on digital literacy

- CANARIE/CDMN/CRKN/CUCCIO
 - Canada's Digital Environment for Research, Innovation and Education [http://www.canarie.ca/templates/about/publications/docs/DES_Submission_E.pdf]
 - Focuses on the development of digital literacy skills among highly qualified personnel along with the digital infrastructure to support their research/commercialization efforts
- CATAAlliance (Canadian Advanced Technology Alliance)
 - <http://www.cata.ca/>
 - Endorses upgrades to digital infrastructure to support industrial parks and other digital business ventures.
- CCICT (Canadian Coalition for Tomorrow's ICT skills)
 - Canada: The Go-to Country for Brainpower Resources in the Global Digital Economy [http://ccict.ca/wp-content/uploads/2010/11/CCICT_Digital_Economy_Strategy.pdf]
 - Focuses on looming shortage of vocational ICT skills. Supports a K-12 strategy to equip all Canadians with a baseline of digital literacy skills, but biased towards productivity.
- CRTC
 - Proceedings Volume 5, 2 November 2010 [<http://www.crtc.gc.ca/eng/transcripts/2010/tt1102.html>]
 - Sees digital literacy as outside their mandate
- HRSDC
 - OLES website [<http://www.hrsdc.gc.ca/eng/workplaceskills/LES/OLES/oles.shtml>]
 - Very clearly underlines the importance of digital literacy skills for the workplace. Skills for life are of secondary importance.
- ICTC (Information and Communications Technology Council)
 - Digital Literacy: Canada's Productivity Opportunity and Digital Skills for Prosperity and Productivity in Canada [http://www.ictc.ca/uploadedFiles/About_Us/ICTC_News/News_Items/ICTC_DL_E.pdf]
 - Focused on looming shortage of qualified ICT personnel. Supports the creation of a standard rubric for digital literacy akin to those for bilingualism. Has also designed a high-school program culminating in network admin certification.
- ITAC (Information Technology Association of Canada)
 - Has not issued a statement on digital literacy or privacy
- Nordicity
 - Towards a National Digital Strategy [<http://www.nordicity.com/digitalstrategy/Towards-a-National-Digital->

[Strategy.pdf](#)

- Focus is on instilling digital literacy among consumers to enable a viable online marketplace.

APPENDIX C

Educational organizations and their stance on digital literacy

- AML (Association for Media Literacy)
 - [<http://www.aml.ca/home/>]
 - The AML's focus for digital literacy is in the vein of cultural studies and deconstructing texts; privacy is not a major concern
- AUCC (The Association of Universities and Colleges of Canada)
 - Learning from living laboratories : Canada's universities contribute to the digital economy [<http://www.aucc.ca/wp-content/uploads/2011/07/submission-digital-economy-consultation-2010-07-09-e.pdf>]
 - The AUCC is interested in digital literacy insofar as it expedites the research and commercialization process.
- CAMET (*Council of Atlantic Ministers of Education and Training*)
 - Literacy: Key to Learning and Path to Prosperity – *An Action Plan for Atlantic Canada 2009-2014* [<http://camef.ca/images/eng/pdf/Literacy-Key%20to%20Learning.pdf>]
 - CAMET references technology as a reason to redouble efforts to improve print literacy for both students and adults in the workforce
- CASL (The Canadian School Library Association)
 - *Achieving Information Literacy: Standards for School Libraries in Canada*
 - Sets benchmarks for teacher-librarians to measure students' digital literacy. The guidelines predate the advent of major UGC sites and do not treat matters of privacy
- CCL (Canadian Council on Learning)
 - The Future of Literacy, State of E-Learning in Canada [<http://www.ccl-cca.ca/CCL/Topic/Literacy/index.html>]
 - Focuses on print literacy. Supports '21st century skills', but not privacy specifically.
- CEA (The Canadian Education Association)
 - The Promise and Problem of Literacy for Canada: An Agenda for Action [<http://www.cea-ace.ca/node/1932>]
 - Focused on print literacy, especially for vulnerable populations and working adults.
- CLA (The Canadian Library Association)
 - Action for Literacy and ICT Access Principles [http://www.cla.ca/AM/Template.cfm?Section=Position_Statements&Template=/CM/ContentDisplay.cfm&ContentID=3046]
 - Supports the right to acquire digital literacy skills, clearly distinguished from vocational skills, although does not offer support for executing this.
- CLLN (The Canadian Literacy and Learning Network)
 - <http://www.literacy.ca/>

- Focuses on improving print literacy for semi-literate adults
- CMEC (Canadian Ministers of Education Council)
 - Learn Canada 2020
[<http://www.cmec.ca/Publications/Lists/Publications/Attachments/187/CM-EC-2020-DECLARATION.en.pdf>], Progress report on literacy 2009
[<http://www.cmec.ca/Publications/Lists/Publications/Attachments/220/cm-ec-literacy-progress-report-2009.pdf>]
 - Focuses on print literacy, although ICT is implicated as a bridge for lifelong learning and a driver of the need for literacy. Digital literacy and privacy are not priorities.