

# Canada: An Information Literacy Case Study

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## **Abstract**

As northern neighbors of the United States, Canadians have looked to organizations such as the US Institute for Information Literacy for ideas and inspiration in the field of information literacy. Canada, however, has its own particular set of characteristics, and this case study will look purely at its own approaches to information literacy. Information literacy is tied closely with other issues, such as access to education and information technology, both of which are addressed in a decentralized manner across the country. This paper provides background on recent developments in Canada in a variety of areas that impact information literacy, looks at the information literacy needs of the Canadian workforce, and summarizes current information literacy programs in schools and post-secondary institutions. Several recommendations for overcoming barriers to information literacy are proposed.

## **1. INFORMATION INFRASTRUCTURE AND ACCESS**

Canada is the second largest country in the world in terms of land mass, but its population is only 32 million, approximately 1/9<sup>th</sup> that of the United States. Though most of the population is concentrated in metropolitan areas, many people are scattered across a vast geographic area. In response to this, Canada has one of the most developed communications infrastructures in the world; 99% of households have telephones and cable television is available to about 95% of Canadian homes. Canada leads the G-8 countries in affordable Internet access costs and about half of the population is online.

In 1999, Canada became the first nation in the world to connect its public schools and libraries to the Internet. As of March 30, 1999, every Canadian public school, First Nations School and public library wanting to be connected was brought online. This accomplishment was the result of an ongoing strategy for the digital information age, the purpose of which is captured in this statement from the Prime Minister of Canada:

*“The Information Age has provided some great opportunities as well as some challenges that every nation must face if they are to flourish in the knowledge-based economy. Our industries no longer compete only locally; they compete globally. Globalization and technology have redefined the concept of the marketplace. It is a new economy in which a country's standard of living, and the quality of life of its citizens will be directly linked to its success in fostering knowledge creation, innovation and adaptability, and in maximizing educational opportunity and cultural expression.*

*Canada continues to be recognized by the United Nations as the most desirable country in which to live, and we are determined that Canada will stay at the forefront in this new economy. That is why we have made a commitment to make the information and knowledge infrastructure accessible to all Canadians, to making Canada the most connected nation in the world”* (Prime Minister of Canada, April 2000).

To some extent, developments toward that “information and knowledge infrastructure” have acknowledged some of the concepts of information literacy, though not by that term.

### **1.1. Information Highway Advisory Council**

In 1994, the federal government formed the Information Highway Advisory Council (IHAC), to develop a Canadian strategy for the digital information age. Discussions and papers on particular areas of concern followed, and in 1997, IHAC presented its final report, *Preparing Canada for a Digital World*. That report discusses “digital literacy.” It states: “Computer and Internet literacy is a necessary precondition for success in the emerging knowledge society and economy” (Industry Canada, October 1997). The report goes on to say that this literacy could best be provided by the existing public education system.

Digital literacy, however, is not information literacy. The IHAC report set a goal of ensuring that every school in Canada has full Internet access, but did not address education related to that access. It also recommended that governments encourage the development of public online tutorials and community-based instruction in digital literacy, and provide resources to public libraries to support public access and learning of basic computer and Internet skills. The relation of such initiatives to the education system was unclear.

## **1.2. Connecting Canadians**

Following these initial discussions of the Information Highway, the federal government launched a program known as *Connecting Canadians*. The programs and services under this umbrella are designed for public schools and libraries, First Nations schools, the voluntary sector, rural and remote communities, small businesses, and recent graduates. In *Connecting Canadians*, there is recognition of the need for “helping our citizens to develop the skills necessary to flourish in the new environment” (Minister of Industry, April 2000).

Amongst the various initiatives within *Connecting Canadians* is SchoolNet, a \$30 million per year initiative led by Industry Canada, in partnership with provincial and territorial governments, the education community and the private sector. SchoolNet “encourages the integration of information technology into Canada's education system to help students acquire digital literacy skills and experience in using the Internet for research and communication” (*Canada's SchoolNet*, 2000). SchoolNet is connected with another initiative called LibraryNet, which includes online tutorials in information literacy concepts. SchoolNet also links to a number of information literacy related sites, but they are in the United States.

### **1.3. E-learning**

For several years now, there has been considerable interest in e-learning initiatives at the level of the federal government. In February 2001, The Advisory Committee for Online Learning presented a report to Industry Canada and the Council of Ministers of Education Canada, titled *The E-learning E-volution in Colleges and Universities*. The report made only passing mention of libraries, yet it also acknowledged that one of the concerns about online learning is that “the Internet enables undisciplined searches in a poorly indexed chaos rather than genuine research”(Advisory Committee for Online Learning, 2001, p.26). Although librarians see the development of new online learning environments as an opportunity for collaboration with faculty on information literacy objectives, rarely is this mentioned in any context outside of libraries.

There are financial implications to this lack of connection. For example, Industry Canada, through an Internet development organization called CANARIE (Canadian Network for the Advancement of Research, Industry and Education), has an E-learning Program with \$26 million to award to projects that relate to “the development, delivery or demonstration of practical, network-delivered, interactive learning applications that use the highest practical bandwidth available.” To date the only project at all related to information literacy is interactive computer-based education and training in the field of health informatics (CANARIE, 2000).

## **2. LITERACY**

According to Canada’s National Literacy Secretariat, 42 percent of Canadians aged 16-65 do not have the literacy skills required for full participation in the knowledge economy. On an international scale, this is comparatively good. The 1994 International Adult Literacy Survey (IALS) showed that for prose literacy, Canada ranked 5th among the 20 countries surveyed, behind Sweden, Finland, Norway and the Netherlands. In terms of document literacy (the ability to find and use information from documents such as maps or tables) and quantitative literacy (the ability to make calculations with numbers imbedded in text, as in balancing a chequebook), Canada was closer to the middle of the countries surveyed, ranking 8th and 9th respectively. Canada consistently outranked the United States, the United Kingdom, Australia and New Zealand on all three literacy scales. Canada was second only to Sweden in terms of the proportion of adults aged 16 to 65 at the very highest literacy levels. However, among Canadian participants there was a large range between very high and very low scores on the prose literacy scale, far larger in Canada than in European countries such as Denmark, Norway, Germany, Finland and Sweden (National Literacy Secretariat, 2002).

The relation between literacy as defined in the 1994 IALS and information literacy is being recognized to some extent. A recent report of the International Information and Communication Technologies (ICT) Literacy Panel indicates that policy makers, business leaders, and educators are expanding their notion of a literate populace to include the skills and abilities that will enable people to function successfully in a world where

technology is prevalent in everyday lives. The report, *Digital Transformation*, was published by the Educational Testing Service (ETS), the world's largest private educational testing and measurement organization and a leader in educational research. The report defines ICT literacy as "using digital technology, communications tools, and/or networks to access, manage, integrate, evaluate, and create information in order to function in a knowledge society" (International Information and Communication Technologies Literacy Panel, 2002). It includes three major policy recommendations, all of which are relevant to an examination of information literacy in Canada:

- governments should begin to include large-scale global assessments of ICT literacy, either within existing assessments or in new test vehicles;
- the ETS and others should work with governments, educators, industry, and labor to develop specific diagnostic measures that better meet the needs of particular constituencies;
- ICT literacy can best be achieved through experiences that integrate cognitive and technical learning. Single focused, stand-alone curriculum, whether academic or technical, will limit learners' attainment of ICT literacy.

The International Adult Literacy and Skills Survey being conducted in 2002, the first since the 1994 survey, includes this concept of ICT literacy. Although ICT literacy includes skills outside the concept of information literacy, such as word processing, there is some remarkable overlap. For example, here is one of the sample tasks included on the ETS ITC Literacy home page, for diagnostic assessment: "Following a stroke, your mother has been diagnosed with an atrial septal defect, or a hole in one section of her heart. While not an emergency, her doctor has recommended open-heart surgery to repair the hole and reduce the risk of additional strokes. You would like to find several reliable sources on the Web that recommend treatment options for this condition" (International Information and Communication Technologies Literacy Panel, 2002). This task is intended to assess, amongst other things, the ability to access and evaluate information.

### **3. EDUCATION POLICY FORMULATION**

Information literacy initiatives in Canada remain on the margins of the education process, from elementary school through to post-secondary institutions, much to the detriment of Canada's workforce and economic potential. If information literacy is to move into the mainstream of education, and be considered as essential to modern life as prose literacy, initiatives need to be undertaken in the context of education policy formulation particular to Canada.

### **3.1. Constitution Considerations**

Under the Canadian Constitution, education is a provincial responsibility, and so education policy is set by each of the ten provincial and three territorial governments. As a result, there are no national education policies.

However, it is recognized that Canadians share a number of expectations regarding education, and that all Canadians face similar challenges, from global changes, that can best be met through education. The provinces and territories formed a body several years ago, the Council of Ministers of Education Canada (CMEC), which provides a forum for exchange of education policy, and a mechanism to formulate and implement pan-Canadian education policies and activities.

### **3.2. Context of Education Policy in Canada**

While education policy in Canada is a form of public policy, and therefore shares with other forms of public policy some characteristics, it varies from other public policy areas in some very significant ways.

Canadians generally expect schools to provide their children with the knowledge, skills and attitudes that will enable them to be successful in the social, economic and democratic aspects of life in Canada. Many parents take a close interest in what is being taught and are vigilant about curriculum and any changes that might be made.

Canadian parents tend to regard post-secondary education, particularly university, as the primary venue for social and economic mobility for their children. It is assumed that attendance at university will ensure that students from upper middle class homes will enjoy the same social and economic life as their parents, and will enable children from lower middle class and below families to become upwardly mobile. As a result, any program that does not lead students to university tends not to be viewed positively by parents.

### **3.3. General Process of Education Formulation**

There is no set process for development and implementation of education policy. The process will vary depending on circumstances and the anticipated impact of the policy.

An idea can arise from any source. Generally, there will be a proponent, either an individual or group, who will seek support and promote the idea. Inevitably, a group will form that holds a contrary view – that is, a group who does not want the proposed change. Not infrequently, the contrary group will be those who feel their employment will be affected or threatened by the proposed change.

The proposed education policy will be raised to the provincial level – normally within the Ministry of Education, and frequently with the Minister of Education. The proposal will be analyzed for such things as consistency with other policies, merit, how it compares

with provisions in other jurisdictions in Canada, what the change would entail in terms of training and resources and other implications.

While this work is proceeding, the interest groups for and against the proposed policy will continue to lobby. If the Minister is convinced that the policy proposal should move forward, it is placed before the central agency of the government (Cabinet Secretariat) for further analysis – particularly for consistency with future directions of the government. Polling may be commissioned at this point if the policy is considered to have sufficient impact.

If all aspects are deemed positive, then the policy will be approved, announced and implemented. It is likely that the new policy would be shared as information across Canada via the CMEC.

The process for change in education policy is a lengthy and complex process involving, at least implicitly, a wide spectrum of stakeholders. Undertaking policy change in education therefore requires great skill and a very firm foundation for the policy if it is to be successful.

#### **4. INFORMATION LITERACY NEEDS OF THE CANADIAN WORKFORCE**

Canada has one of the most highly educated workforces in the world. We are beginning, however, to experience major demographic changes that will result in fewer workers: 50 percent of the workforce of 2015 is already in the labour market, and the number of youths on the horizon is decreasing. At the same time, the need for highly skilled workers is rising, and Canada is in competition with other countries to retain them. Changes in information and communications technology have profoundly changed the way we live and work, and the knowledge-based economy means an ever-increasing demand for a well-educated and skilled workforce in all parts of the economy (Government of Canada, 2002, *Knowledge Matters*).

In February 2002, the Government of Canada announced its Innovation Strategy, with the release of two documents: *Achieving Excellence: Investing in People, Knowledge and Opportunity* and *Knowledge Matters: Skills and Learning for Canadians*. The papers highlight goals, milestones and targets that will improve innovation, skills and learning in Canada, to position the country to succeed in the global, knowledge-based economy. For example, one of the targets is to become one of the top five countries for research and development performance by 2010, requiring at least double the number of research personnel in our current labour force. This is one of many targets in which information literacy is implicit, though not directly stated (Government of Canada, 2002, *Achieving Excellence*).

The specific skills required for this new workforce are not unique to Canada. The Conference Board of Canada, in its *Employability Skills 2000+*, outlines the skills needed to participate and progress in today's work world. Under Fundamental Skills, the second

on the list is “Manage Information: locate, gather and organize information using appropriate technology and information systems; access, analyze and apply knowledge and skills from various disciplines (e.g. the arts, languages, science, technology, mathematics, social sciences, and the humanities)” (Conference Board of Canada, 2000).

A related publication, *The Critical Skills Required Of The Canadian Workforce*, includes using technology and information systems effectively, and accessing and applying specialized knowledge from various fields, under academic skills required by Canadian employers (Ministry of Education, Government of British Columbia, 1999). Similarly, Human Resources Development Canada includes “finding information” amongst its essential skills profiles (Human Resources Development Canada, 2000). Another point emphasized in all these resources is the need to continue to learn for life, which certainly requires an ability to find and evaluate information.

The reasons for encouraging these skills are predominantly economic. Canada has the 7<sup>th</sup> highest standard of living among the 30 member countries of the Organisation for Economic Co-operation and Development (OECD). However, relative to the United States, real incomes per capita in Canada have been steadily falling over much of the last two decades. This is cause for concern because the U.S. is our closest neighbour, largest trading partner and key competitor for talent and North American investment. If we do not narrow the gap, we risk an outflow of talent and capital, which could contribute to a decline in our standard of living and, ultimately, the quality of life of Canadians (Government of Canada, 2002, *Knowledge Matters*).

## **5. INFORMATION LITERACY IN SCHOOLS**

Given the requirements of the knowledge-based economy and the inclusion of information literacy in the desired characteristics of Canadian employees, one would assume that information literacy is a high priority in Canadian public schools. Unfortunately, there is little evidence that it is.

Almost every school in Canada has a space that is called ‘the library’ or ‘the resource centre’, but in recent years, they have experienced significant reductions in staffing and programs. One typical school district in Vancouver has reduced funding for school libraries from \$25 per elementary student and \$33 per high school student in 1982, to \$7 and \$12 respectively in 2000 (McLellan, 2002).

These reductions have a significant impact on information literacy. As a physical space, the school library provides a collection of materials relevant to the curriculum and systems for accessing that information, but it can also be much more. In terms of information literacy, the school library supports instruction in the use of information tools and the critical use of information, through the expertise of a teacher-librarian. A teacher-librarian is a qualified teacher with successful classroom teaching experience and additional post-baccalaureate education in teacher-librarianship. The teacher-librarian is able to relate the objectives of the school and classroom curriculum to the school’s

learning resources. Ironically, often the teacher-librarian is laid off as school districts trim budgets and reduce human resources.

### **5.1. The Impact of Teacher-Librarians**

Ken Haycock, recently retired director of the School of Library, Archival and Information Studies at the University of British Columbia, has conducted an extensive analysis of more than 30 years of research on the relationship between student achievement and teacher-librarians' involvement in education (Haycock, 1997). One study, known as the "Colorado study" (for the department of education in which it took place), showed that the size of the resource centre staff and collection is the second highest predictor of academic achievement in students, right after "at-risk" conditions such as poverty and low education level of adults in the community. Studies have also shown that the development of student competence in information skills is most effective when integrated with classroom instruction, through a partnership between classroom teachers and the teacher-librarian.

According to Haycock, one of the greatest impediments to fully realizing the potential of teacher-librarians is lack of education for this position. In the 1980s, undergraduate programs for teacher-librarians, as part of teacher education, were mostly eliminated. Proposed graduate programs were not put in place, and ninety percent of the university faculty positions in teacher-librarianship in Canada were eliminated. In addition to solid experience as a classroom teacher, teacher-librarians require specialized knowledge related to information management.

### **5.2. School principals and school districts**

Within each school, the role of the principal is a key factor in development of effective information literacy programs. The principal can communicate that information literacy is a priority, encourage collaboration between classroom teachers and teacher-librarians, and ensure time and resources are available to build effective resource-based learning experiences.

School districts are faced with setting priorities amongst competing demands. At the same time, school board members may believe that the Web can replace school libraries. They may not be aware of the role teacher-librarians play in connecting this new wealth of information with the curriculum or teaching students how to evaluate that information. The concept of information literacy may be completely unknown. In this environment, it is crucial that educators raise the awareness of administrators about the information literacy requirements of today's workplace and what can be done within schools to address those needs.

## **6. INFORMATION LITERACY IN POST-SECONDARY EDUCATION**

Canadian academics, like their counterparts in the United States, have many different approaches to information literacy. The stand-alone workshops of the early days have been replaced or augmented by research assignments co-designed by faculty and librarians, classes on research strategies, online tutorials with topics such as evaluating information or avoiding plagiarism, and entire credit courses in information literacy. Still, it seems in many ways that information literacy programs are still in their infancy, and in most institutions it seems they are not sustainable as currently funded and delivered.

Heidi Julien, Assistant Professor at the School of Library and Information Studies at the University of Alberta, is conducting an in-depth analysis of information literacy instruction in Canadian post-secondary institutions. She conducted national surveys in 1995 and 2000, and phase one of a subsequent project involved interviews with librarians and administrators at several institutions in 2000-2001. Her findings include (Julien, 2000):

- The most heavily used approach is group instruction for specific courses or subjects. Less than 9 percent of post-secondary educational institutions in Canada have a credit information literacy course. 36 percent of academic libraries are using computer-assisted instruction.
- Time spent on information literacy instructional activities drops significantly after the start of the academic year.
- Librarians agree that the following elements of information literacy are their full responsibility: understanding how to locate efficiently and effectively information from many sources, and understanding how information is generated, organized, stored and transmitted. Other elements, such as understanding how to critically analyze and evaluate information, are seen as a responsibility shared with teaching faculty.
- Evaluation is predominantly informal; only 25.5 per cent test students on their knowledge.

This national summary closely matches the experience of this paper's authors at the University of British Columbia (UBC) Library. The degree to which information literacy instruction is integrated into the curriculum varies between academic programs. Many courses, including an English course taken by the vast majority of first year students, include some kind of mandatory resource-based assignment, but these usually involve a single instruction session with librarians. Online tutorials are used for very large classes or to provide students with a more flexible learning opportunity. A few programs, such as the Faculty of Medicine, include information literacy objectives in their curriculum and these translate into a number of progressive components of instruction.

### **6.1. Instruction and Funding Models**

There are two quite different problems in the existing instruction models. On the one hand, many faculty feel hard pressed to cover the curriculum, and they see information literacy skills as competing with, rather than meshing with, the work of the course. On the other hand, many faculty do see a need for information literacy instruction, and there are not enough librarians to meet that demand. As one of the respondents to Julien's 2000 survey stated, "...we have reached the limit of what we can offer. More personnel and support are required, plus an understanding on the part of the university administration and academic realm as to the necessity of the endeavor" (Julien, 2000).

The current models of on-demand instruction would be difficult to scale up to cover the entire institution, no matter how many additional librarians were brought on staff, because the demand is unpredictable. At the root of the problem is the fact that information literacy is rarely addressed as an educational objective and therefore is not systematically covered in academic program curricula.

Information literacy instruction needs to be planned inside academic programs, not just in response to individual initiatives. That planning must include development of realistic funding mechanisms. When academic units plan courses, they recognize which ones require teaching assistants as well as instructors. In that same way, academic units need to establish which courses have an information literacy component requiring a librarian. Opinions differ on whether the funding for that librarian should come from the academic unit's budget or from the library's budget. On the one hand, information literacy is one of the library's core activities, just like reference service, and traditionally core services are not "charged" to each faculty. On the other hand, having the academic unit provide at least partial funds for a librarian's salary may create a sense of partnership and perhaps greater integration into the teaching function of the unit. The danger of the latter approach is that as academic programs face funding challenges, one of the simplest cuts would be to librarians, an approach similar to that taken by public schools.

## **6.2. Information Literacy Objectives**

Hearing directly from faculty about their perception of information literacy needs proved a useful exercise at UBC in 2001/02. Librarians met with faculty administrators to discuss a series of questions related to information literacy, and focus groups were held with faculty and students. In analyzing the librarians' reports and the focus group report, it was clear that faculty and students perceived two kinds of information literacy needs: those related to being a student in a field and those related to becoming a practitioner or scholar in a field. Specifically, the needs mentioned included:

- defining and researching a topic
- selecting and evaluating materials
- knowing what primary sources are and where to find them
- preventing plagiarism
- citing sources
- understanding the nature of scientific research and scholarly communication
- becoming familiar with core journals and resources in a field
- being able to identify key authors

- conducting a comprehensive literature search
- conducting case research
- knowing how and where to publish

It was reassuring to note that these needs stated by faculty and students fit very well with the information literacy objectives traditionally stated by libraries. Based on these observations, it would seem that faculty as well as librarians would welcome the integration of information literacy more directly into the curriculum. But without a mandate from the administrators of the academic unit or the university as a whole, it is difficult for time-deprived instructors to have much of an impact.

### **6.3. Assessment**

One of the symptoms, and also a cause, of the current lack of integration is a lack of rigorous assessment. According to Julien, only 25.5 % of the librarians surveyed test students on their knowledge. This is not surprising: assessment of library instruction programs has traditionally measured the quality of instruction and students' perception of instruction, rather than measuring the effect of instruction on student performance. The literature on information literacy practices shows an increased emphasis on more rigorous assessment, so one wonders why it is not happening.

There are several reasons. First, the majority of instruction still takes place during a single in-class encounter between librarians and students. Librarians use the simple subjective evaluation form for such sessions because they question how meaningful other methods are in such an environment. The true effect of the instruction cannot be judged until the student needs to apply what was learned in the class, and librarians rarely witness that in any systematic way. Second, few librarians have any formal training in educational methodologies, including assessment. Third, librarians are not traditionally included in the academic communities of the university where issues surrounding assessment are discussed.

All of these reasons for lack of rigorous assessment are understandable, given the lack of integration of information literacy into academic programs. It is also a “chicken and egg” problem: for information literacy to be taken seriously in higher education and integrated into academic programs, there must be clear evidence of the effect of instruction on student performance. And for information literacy to be effective, it must be seen as part of the academic enterprise.

## **7. RECOMMENDATIONS FOR EFFECTING CHANGE**

### **7.1. Definition of Scope**

Discussions around the need for information literacy instruction are usually anecdotal and rarely quantitative. Statistical evidence needs to be gathered and disseminated. What portion of the population is ‘information illiterate’? What are the demographics of those

people? What impact does it have on their lives, and on the country's economy? To some extent, the work being done on ICT literacy has begun to address these questions, but needs to be expanded to include the full scope of information literacy.

**Recommendation 1:** A research study should be undertaken to evaluate various Canadian populations against defined levels of information literacy.

## 7.2. Innovation Strategies

“It is time to take what Canada has done well and ask ourselves: How do we do more of this, faster? How can we multiply our successes across the country and into the future? It is time to galvanize a truly national effort to achieve excellence in all we do: to be the best and nothing else” (Government of Canada, 2002, *Achieving Excellence*, p.3).

**Recommendation 2:** Federal initiatives, such as *Connecting Canadians*, that encourage the integration of information technology into Canada's education system, should at the same time support information literacy instruction as part of that integration.

**Recommendation 3:** Federal organizations, such as CANARIE, that encourage the development of networked delivered interactive learning applications, should include funding for information literacy learning programs.

**Recommendation 4:** Information literacy should be an explicit part of the Canadian government's Innovation Strategy.

## 7.3. Factors in Education

Information literacy initiatives in Canada remain on the margins of the education process, from elementary school through to post-secondary institutions, much to the detriment of Canada's workforce and economic potential.

One of the keys to effectively building information literacy instruction into the curriculum is a strong relationship between administrators, instructors and librarians. What has not happened in most cases, however, is a systematic integration of information literacy into the curriculum, with the support of administrators. In order to achieve administrative support for information literacy endeavours in higher education, several things must occur.

**Recommendation 5:** Information literacy policy initiatives must be undertaken in the context of education policy formulation particular to Canada.

**Recommendation 6:** Evidence on the effect of information literacy on academic achievement must be compiled and disseminated.

**Recommendation 7:** Educators must explicitly identify information literacy as an objective in the curriculum, develop programs to meet those objectives, and secure funding for those programs.

**Recommendation 8:** Educators must raise the awareness of government and education administrators regarding the information literacy requirements of today's workplace and what can be done within the education system to address those needs.

## 8. CONCLUSION

Canada is making great strides forward in the information age, by building a strong telecommunications infrastructure and planning for a knowledge-based economy. As a nation, however, we have not addressed what it takes to become a truly information literate society, one that can take full advantage of the opportunities of this era. We face a number of challenges in this regard. Canada lacks a federal office of education, so implementation of education policy is difficult. Information literacy programs are developed in the context of libraries, but generally not in the curriculum, either in schools or post-secondary institutions. We also face a problem not unique to Canada: we are only just beginning to address how to assess information literacy competencies. Best practice in information literacy, particularly in post-secondary education, has been based on measures of satisfaction or anecdotal evidence rather than measures of achievement over time.

However there are opportunities in this country for securing greater support of information literacy. The objectives of information literacy are implicit in many federal initiatives, and there is a good understanding of the relation between education and a strong workforce. Strong leadership from informed educators and support from governments, business and educational administrators will help to ensure that significant progress is made in ensuring that all Canadians have the benefit of information literacy.

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