INFORMATION LITERACY TRAINING IN CANADA'S PUBLIC LIBRARIES[1]

Heidi Julien[2] and Cameron Hoffman[3]

The purposes of the study were to explore the role of Canada's public libraries in developing the public's information literacy (IL) skills, to explore current IL training practices, and to explore the perspectives and IL experiences of individuals who visit public libraries to access the Internet. This article documents the second phase of a larger study, which included semistructured interviews of library staff ($n = 28$) and customers ($n = 25$) as well as site observations conducted at five public libraries. Analyses were conducted qualitatively within a phenomenological framework. Results show that the primary use of the Internet in public libraries is communication. Customers reported confidence in using the Internet, while library staff indicated that customers' IL skills were poor. Greater attention needs to be paid to connecting to customers who believe they are highly information literate yet may lack sufficient skills.

Introduction

The primary objective of this study was to explore the role of Canada's public libraries in information literacy (IL) skills training. This study ex-

plored both current IL training practices in Canadian public libraries and the potential role for training in these institutions. Fundamental to this exploration was the need to understand the perspectives of librarians and other staff members who conduct IL training in public libraries throughout the country. In addition, this study explored the perspectives of individuals who visit public libraries to access the Internet, with the intention of investigating their experiences of IL.

Rationale

The rationale for this study lies within a context of Canadian federal government information policy, specifically Industry Canada's Community Access Program (CAP) that "aims to provide Canadians with affordable public access to the Internet and the skills they need to use it effectively" [1]. The main objectives of this program are to connect all Canadians to the Internet (particularly to e-government services), ensure public access to information that supports community and economic development, and provide Canadians greater opportunities to develop the skills necessary to access online information.

Industry Canada identified public libraries, in addition to schools and community centers, as appropriate sites in which to implement the CAP objectives. Consequently, over the last several years, rural and urban public libraries across Canada have been given funds to purchase computers, establish Internet connections, and make such technology available to their customers. As a result, nearly all Canadian public libraries currently provide Internet access.

These policy goals are commendable, but CAP funding has focused on providing computer hardware and constructing computer networks, rather than on significant efforts to promote training or IL goals. The federal government describes CAP as being an initiative that encouraged "on-line learning and literacy" [1], yet public libraries have been expected to find their own ways and means, without additional government support, to fulfill the CAP objectives that pertained to IL training.

This study was conducted under the assumption that a discrepancy exists between the government's encouragement of greater public Internet use and its lack of dedicated support of the nation's public libraries in providing IL training. This discrepancy constitutes a great challenge for public libraries, as they have been called to fulfill the policy roles imposed on them by the federal government through CAP yet have been given few resources outside of computer hardware with which to do so. Currently, public libraries contend with a lack of financial and material resources while attempting to fulfill a range of community functions (e.g., repre-

senting social gathering space, developing early childhood and adult reading literacy, supporting adult education and lifelong learning, and supporting recreational needs). In addition, some public library staff members feel conflicted in providing IL training, as this work historically has not been considered a primary role of the public library. Chris Miller has shown that these types of identity crises are not unique in the Canadian nonprofit sector [2], and Kay Poustie has argued that the expansion of the role of the public library is not unique to the Canadian context [3].

Related to these role conflicts are the technological challenges that public libraries have faced—either historical challenges involved with the migration from pre-Internet information resources to Web-enabled services or current challenges as public libraries find their place in identifying relevant, effective, and engaging services in the context of Web 2.0. For more than a decade, public libraries have faced the challenge of trying to integrate new technologies [4]. Challenges related to allocating hardware, software, and network connection resources—as well as challenges pertaining to training staff and making online information accessible and useful to library customers—continue to be concerns [5, 6]. Underscoring these challenges is the expectation from many Canadians that information technology will continue to be a significant aspect of the new economy and that the public library must continue to provide Internet access [5, 7, 8]. The issues faced by Canadian public libraries, in terms of both customer expectations and resource constraints, are evident in recent U.S.-based research as well [9].

This study also focuses on the actual training services or opportunities provided by public libraries and the challenges related to training. It documents the actual use being made of federally funded computers or Internet access stations, and it also explores the IL gap in the general population. This gap ironically parallels a misplaced confidence many Canadians have in their ability to find, assess, and appropriately use information. This skills deficit is a kind of second-level digital divide [10] that constitutes a barrier to Canadians' information access, which was meant to be facilitated by federal policy makers. Research by Heidi Julien and Sandra Anderson [11] points to other information policy/IL gaps that relate to these factors:

- federal government faith in the public library as an institution able to fulfill information policy roles,
- attitudes of some public librarians (e.g., ambivalence, uncertainty, resistance) about their role in the training of IL skills, and
- customer attitudes about the role of the public library and about the ability of public library staff to assist them.

Critical to this study is an emphasis on public libraries. These institutions

have typically received less attention in library and information studies research, while academic libraries have received more attention. Only recently has Canadian research into public libraries expanded, as evidenced by a focus on the role of the public library as civic space [12]. Greater research focus needs to be directed toward public libraries, particularly with respect to how the public library's role is changing in light of recent technological changes and the resulting changes in people's need for information and desire to participate more fully and collaboratively in the online world. The findings of this study, described below, identify the various challenges faced by public libraries with respect to limited financial and material resources, keeping up with current technological trends and providing relevant IL training to customers.

In addition, this study builds upon a decade of attention to IL issues in Canadian libraries, albeit mainly focused on the academic library context [13–18]. That the public library has a potentially significant role to play in IL training for ordinary citizens is just beginning to be recognized.

Theoretical Context

Informing the theoretical foundations of this study were the definitional framework of IL as it is understood by many in the library community and a phenomenological approach to understanding people's conceptions and experiences of IL. Throughout this study, during interviews with library staff and customers as well as in the data analysis stage, the framework of IL as defined by the Association of College and Research Libraries (ACRL) was used. The ACRL definition refers to IL as the "set of skills needed to find, retrieve, analyze, and use information" [19]. This is a commonsense definition that operationalizes the concept of IL in a way easily understood by practitioners and by nonexperts. It was the standard definition understood by the librarians participating in this study and was used to explain what was meant by "information literacy" in interviews with library customers.

In addition, the study adopted Christine Bruce's phenomenological approach to inform analysis of public library customers' experiences as information literate individuals [20]. This relational model approach is based on research of learners' conceptions and experiences of information use and seeks to understand people's perspectives, perceptions, and understandings [21] with respect to IL. Critical to Bruce's IL studies is a relational model based on research of learners' conceptions and experiences of information use. This model identifies various meanings that are attributed to IL, which include using information technology, finding information,

executing a process (i.e., searching), controlling information, building personal knowledge bases, gaining new insights through the integration of knowledge with personal perspectives, and using information for the benefit of others [20]. Bruce notes that the experience of IL is highly personal, and thus variable, especially with respect to subject-object relations or ways in which learners relate to information [20]. This study adopted Bruce's phenomenological approach to inform analysis of public library customers' experiences as information literate individuals. Bruce's framework is complementary to the ACRL definition of IL; both models position the learner as the focus of concern. This study used Bruce's model, for its deep theoretical context, to focus on customers' experiences of being information literate, as well as the ACRL definition, with its instrumentalist focus and practicality in the classroom, as the basis for both librarians' and customers' understanding of the scope of IL skills.

Method

This study constitutes the second phase of a larger exploration of IL training in Canada's public libraries. Data collection methods were approved by the Faculties of Education, Extension, and Augustana Research Ethics Board at the University of Alberta.

Both phases of the study sought to address the following research questions:

1. What IL instruction is occurring in Canadian public libraries?
2. What are the views of staff about IL instruction in the public library?
3. How are library customers using public library Internet access?
4. How have library customers developed IL skills?
5. How do library customers experience being information literate?

The first phase [22] consisted of a written survey that was distributed to urban and rural public libraries throughout Canada ($n = 836$) and attempted to identify the nature of IL instruction in the country's public libraries and the perspectives of library staff on training activities.

The most critical outcome of the first-phase survey was the documenting of current IL instructional activities carried out in Canadian public libraries. The survey revealed a number of critical realities:

- IL training remains a comparatively minor priority in the nation's public libraries. While informal one-on-one guidance sometimes occurs at reference or customer services desks, there is little formal instruction given.

- There is a lack of dedicated funding for training activities.
- Public libraries experience a lack of trained staff and space for instructional activities.

The second phase of the study involved site visits to public libraries, including observations of customer Internet/computer use and interviews of public library staff and customers. Respondents from the first-stage survey who indicated interest in participating in site visits were contacted to develop a pool of five libraries representing a cross section of community sizes, urban/rural populations, and variations among Canada's geographical regions. The five public libraries selected for participation in the second phase of the study are located throughout Canada. They include a large central branch of an urban public library in a city of about 2 million persons, another main branch of an urban public library in a city of about 1 million persons, a public library in a smaller city of approximately seventy-five thousand persons, a public library in a town with a population of approximately nine hundred persons, and a public library housed within a community center on a Canadian First Nations reserve with a population of less than one hundred persons. Each of the five sites currently provides standard library services, including the circulation of print and audiovisual materials and information/reference services. As well, each site provides Internet access for the public, including community residents and nonresidents. At the time of the site visits, the two smallest libraries employed only nonprofessional library staff (i.e., staff without master's degrees or professional certification as librarians).

At each site, the first author and a research assistant conducted general observations of customers accessing the Internet at library computers. Recorded through field notes, these observations focused on the general atmosphere of each site's Internet access stations, the degree to which customers at the sites interacted with one another and with library staff, as well as the nature of those interactions. In addition, structured observations focused on customer activities and uses being made of Internet public access stations. Customer activities and general observations were recorded at periodic intervals during a cross section of days and times. As well, photographs were taken of the computers and Internet access stations under observation. The confidentiality of observed library customers needed to be protected, so clear signage was posted in computer or Internet access station areas. These signs notified library customers of the site observations and photography of Internet access areas. Care was taken not to photograph customers who expressed objections, and no photograph personally identified any customer in any of the library site observations. Observational data were analyzed quantitatively, while photographs were analyzed using a qualitative content analysis.

Additionally, the first author and a research assistant conducted twenty-five semistructured interviews with library customers who were observed using Internet access stations at the five sites. The twenty-five library customers interviewed (thirteen females and twelve males) ranged in age from their twenties to their seventies and were from a variety of socioeconomic backgrounds. Some of the twenty-five interview participants were regular users of the library in which they were interviewed, while others were visitors. Several participants had Internet access at home or at their workplace, while others did not. The one common characteristic shared among all twenty-five interview participants was that they were all using computers or Internet access stations in public libraries. Each of the participants was approached after being observed using a computer or Internet access station, and each was asked to participate in a face-to-face interview. As well, each participant was given an information letter describing the aims of the study and the nature of participation in the interview. Each participant gave written consent to be interviewed. All participants were guaranteed anonymity. Interviews were conducted immediately after each participant accessed the Internet in the library, except in one instance in which an interview was scheduled at another convenient time during the on-site visit.

The customer interviews addressed the following questions:

1. Why do customers access the Internet in public libraries? Do library customers have Internet access at home, work, or school settings?
2. For what purposes are library customers using these stations?
3. To what degree do library customers believe they are "information literate"?
   a. Which specific skills do library customers believe that they have mastered?
   b. Which specific skills do library customers believe that they have yet to master?
4. To what degree are library customers confident about their ability to make effective use of the Internet?
5. How do library customers experience IL? (In the interviews, this question followed a definition of IL given by the principal investigator. The question was then phrased, "How do you feel about being information literate?")
6. Do library customers perceive that a lack of IL skills has been a barrier to effective/efficient access to information on the Internet?
7. Are there other barriers that get in the way of effective/efficient access?
8. What sorts of informal or formal training in IL skills have library customers received?
   a. To what degree have these training opportunities benefited them?

    b. What forms do any perceived benefits take (e.g., cognitive or prac-
       tical skills or affective changes, such as increased confidence)?
  9. Would library customers like to receive more training?
    a. What form would they like this training to take?
    b. Where would they like to take this training?
    c. What skills would they like to further develop?
  10. Are there demographic differences in responses to these questions
      (e.g., income level, gender, length of time online)?

Interviews were tape-recorded and fully transcribed. Analyses were con-
ducted using qualitative content analysis, with the assistance of NVivo soft-
ware.

To increase validity and reliability of results, the site observations and
customer interviews were triangulated with data from interviews with public
service librarians and other public service staff at the five sites. Interviews
with library staff addressed the same research questions that were high-
lighted in the survey in the first stage of the study. These questions were

1. Do you view instruction/training for library customers in IL skills as
   a role of the public library?
2. Do you believe that instruction/training for library customers in IL
   skills is needed?
3. What outcomes do you perceive for customers who receive instruc-
   tion/training in IL skills?
4. Do you believe that customers avoid higher-level "research" activities
   on the Internet due to a lack of IL skills?
5. What instruction/training in IL skills is being done in your library?
   a. Who is doing instruction/training (i.e., what level of staff)?
   b. What is the level of experience/training of staff doing instruction/
      training?
   c. What form is instruction/training taking? Is instruction/training
      done formally, as well as informally on an ad hoc one-to-one basis?
6. What resources are allocated for instruction/training in IL skills?
   a. Is there any budget for instruction/training?
   b. Has your library allocated space devoted to instruction/training
      activities or otherwise incorporated instruction/training activities
      into space planning?
7. Is instruction/training for IL skills monitored for outcomes, and if
   so, what forms of evaluation are being done?
8. Do you have any other comments about instruction/training in IL
   skills in your library?

Public services staffs were contacted prior to the site visit and were provided
with information letters outlining the nature of the study and participation

TABLE 1
OBSERVED INTERNET USES OF PUBLIC LIBRARY CUSTOMERS

Internet Use	Number of Observations
E-mail	55
Search engine use	25
Reading news from online sources	23
Visiting foreign language Web sites	23
Gaming	21
Word processing	19
Online shopping	14
Job searching	12
Using chat rooms/bulletin boards	12
Viewing entertainment news Web sites	10
Using the library online catalog	8

in interviews. The twenty-eight staff interview participants provided written consent.

Findings: Site Observations

Customer Uses of the Internet
Library users accessing the Internet in public libraries were observed engaging in the online activities listed in table 1. Other observed Internet uses with fewer total observations included using library databases, viewing sports-related sites, viewing investment/business sites, viewing pornography, viewing online dating sites, using instant messaging software (specifically, MSN Messenger), and banking online.

Observed Internet activities can be conceptualized in terms of broader use patterns:

Communication uses (seventy-eight observations in four of the five library sites): for example, e-mail, chat rooms, online dating services, bulletin boards, and instant messaging.

Entertainment uses ($n = 43$, in all five library sites): accessing various online entertainment products such as online games and music videos. Also includes online comics and cartoons, game cheats sites, and online TV/movie listings.

Business/financial uses ($n = 28$, in four of five sites): online shopping (which includes eBay), exploring investment/stock/business sites, and conducting online banking.

Search engine uses ($n = 25$, in four of five sites): thirteen of these observed uses involved Google. Yahoo! use was observed nine times.

News information uses ($n = 23$, in four of five sites): viewing or listening

to some sort of online news source (e.g., Internet radio, online news-papers).

Foreign language Web site and forum uses ($n = 21$, in three of five sites): accessing foreign language (language other than English) Web sites as well as ethnic community online discussion forums. Nineteen of these observations were observed at the two largest public libraries included in the study.

Library-specific uses ($n = 20$, in four of five sites): searching the library's online catalog, online databases, or library Web sites.

Word-processing uses ($n = 19$): only two of the sites in this study—library B in a large center and library C in a smaller city—had word-processing software installed on public access computers. However, observed word-processing activities constitute a significant enough library computer use that it is cited here.

Uses reported by library customers during the interviews included general Web searching ($n = 12$), e-mail ($n = 11$), completing school work ($n = 3$), conducting job searches ($n = 3$), searching for travel information ($n = 2$), shopping ($n = 2$), and paying bills ($n = 1$).

Customer Comfort and Privacy

Observations at all sites revealed that in an overall sense, library customers are not encouraged by the physical surroundings to inhabit the space in which computers are located. Uncomfortable seating (in the form of stools or utilitarian stackable office chairs) is usually provided. Four of the five sites visited had "standing" Internet stations, offering no seating provisions, even at computers that were not designated as "express" stations. Typically, little privacy is afforded; only one of the sites had installed privacy screens on the computer monitors. Two sites had dedicated space for instructional purposes.

Customer Gender and Age

The observations in this study also reveal that men generally make greater use of public library computers than women. In three of the five library sites, male customers tended to outnumber female customers by an average ratio from of 2 : 1 to 3.4 : 1. In one of the larger libraries, female customers outnumbered male customers by an average ratio of 3 : 1. Only one customer, a female, was observed at a public access computer at the library on the Canadian First Nations reserve.

It is acknowledged that with respect to age, making accurate judgments by appearance is difficult, even impossible, but in four of the five sites, observations based on subjective judgment reflect that a high proportion of library users—up to two-thirds—appeared to be under age thirty. Easier

to determine in the observations was that, in the large urban centers library, customers represented a diversity of ethnicities, and visible minorities were proportionally overrepresented with respect to the overall Canadian population. As well, customers at public Internet access stations included residents of the communities visited as well as visitors and travelers.

Findings: Customer Interviews

Income and Reasons for Accessing the Internet in Libraries
The mean annual income of the customers who were interviewed was lower than the Canadian average; ten of twenty-five participants reported an income under $20,000 per year. Five customers reported that they had Internet access at home, and another ten of the twenty-five who were interviewed indicated that they had Internet access at some other location such as work, a seniors' center, a community center, or Internet cafés.

During the interviews, it was revealed that customers access computers at public libraries because of available Internet access ($n = 11$), because they need to access e-mail ($n = 6$), because the library is a convenient location ($n = 3$), and because of the need to conduct job searches ($n = 3$). Only one of the twenty-five library customer interviewees reported that the possibility of asking staff for help was a significant reason for going to a public library to access the Internet.

Customer Self-Reporting on Internet Experience and Confidence
Customers reported a wide range of experience with the Internet. One individual claimed to have twenty years of Internet experience, eight reported between ten and fifteen years of experience, ten interviewees reported from five to nine years of experience, while six interviewees reported three years of Internet experience or less.

The interviews reveal that library customers claim high levels of confidence with the Internet. The largest proportion of interviewees ($n = 16$) identified themselves as very confident in their use of the Internet, while another seven library customers (all female) indicated that they were somewhat confident in their Internet use. Two interviewees said that they were not confident. This study reveals that there is a very weak positive correlation between Internet experience (number of years using the Internet) and self-reported confidence level ($r = 0.23$).

During the interviews, customers reported that they had mastered various IL skills such as searching the Web, evaluating online information, and creating Web pages. One interviewee commented about her own IL strengths: "I have a good vocabulary, and I also have the ability to think about things from several different angles."

Customer Beliefs about IL Competencies

Library customers identified a number of skills that they believed needed improvement. Interestingly, some of these skills deal more with computer literacy, while others pertain more to basic IL. Many interviewees reported that they would like to improve IL competencies such as using a greater variety of information sources. Others reported that they would like to improve their keyboarding ability or their skills in searching databases or mastering specific software applications. A number of the library customers interviewed said that they would like to improve certain personal attitudes rather than particular skills, such as the ability to be more patient when searching the Internet. These types of responses sometimes led to personal confessions from interviewees about a lack of confidence in their IL skills. One interviewee admitted, "I always feel that I'm not good enough and I should make more effort and I want to be better, . . . so I will never feel really accomplished."

While some of the library customers identified a lack of certainty in their information-seeking abilities, most of them self-identified as information literate. When asked directly if they were information literate (the question being asked after the ACRL definition of IL was given), thirteen of the twenty-five interviewees said yes. Another eight customers felt ambivalent about their skills, and four indicated that they were not information literate. Of the interviewees who identified themselves as information literate, nine (of thirteen) reported that they had no special feelings about their level of skill. When asked about how they felt about being information literate, these individuals made comments such as

- "Doesn't boost my self-esteem."
- "Part of everyday life [like] brushing your teeth."
- "It's just another tool used around the home."
- "For my age group it's probably pretty normal. . . . I've just grown up with it."
- "I don't feel very proud or anything like that."

Whether self-identified as skilled or unskilled, information literate or not, ten of the interviewees indicated that they had positive feelings about their experiences in using the Internet to find information. They described their feelings in the following ways:

- "It's a lot nicer than not [being skilled in finding information]."
- "I think I'm in control."
- "[I'm] just not easily coerced. . . . I have a pretty good idea to watch out and be aware."
- "Confident."
- "Really pleased."

- "Really proud."
- "It's a sense of empowerment."
- "It's exclusive."
- "You are informed."

For many of the customers interviewed, experiences of having some level of IL include feelings of superiority, empowerment, and personal control. Others, however, are utterly nonplussed, suggesting that being information literate is as mundane as tying one's shoes.

Most of the interviewees ($n = 15$) do not believe that a lack of IL skills—whether this has been a temporary skills deficit in certain situations or an ongoing problem in general—has been a barrier to accessing online information efficiently and effectively. Only six of the interviewees thought that a lack of skills might be a problem, while one was unsure. When asked how they developed their information skills, the largest proportion of customers interviewed ($n = 11$) said that they were self-taught. Four of the participants indicated that they had received training in a school setting. Another four participants said that they had training at a university or college. Interviewees who identified secondary or postsecondary institutions as sources of training described their education in the form of computer technology courses rather than formal instruction in finding and assessing information. Two of the interviewees said that they gained training in the workplace. One individual said that he was taught IL skills by a friend, and one other participant said that she learned information-finding skills at the public library.

Eleven of the interview participants indicated that they would like further IL training, and of these individuals six said that they would prefer to have such training in a school, university, or college setting. Five of the participants said that the public library might offer useful training. During the interviews, four customers indicated that they preferred an informal, less structured approach to skills training. These four customers wanted shorter training sessions (i.e., workshops or in-services) rather than longer, systematic courses. They idealized a type of training session that involved plenty of hands-on activities and practice time. Customers who identified an ideal training format indicated a preference for an "in-person" instructor rather than an online tutorial or distance-education approach. These customers suggested that they would benefit from an instructor-led visual presentation of information tools and materials. Suggested one customer, "I think I learn better when someone shows me how to do it. I'm one of those kinds of people. But . . . learning stuff on my own, . . . it just takes a little while."

Five customers in the study cited factors that hindered their Internet use in the library and negatively influenced their ability to access online

information efficiently and effectively. The majority of this group ($n = 4$) identified time constraints as their main problem in finding and evaluating information. Three of these customers indicated that they lack patience in information-seeking contexts—with their inability to find information, the quality of search results, or the slow speed of certain computer connections. Other barriers cited by interview participants related to poor spelling skills that affected the ability to use search engines, other library users who were seen as bothersome (particularly small children), and the cost of accessing some online information.

Findings: Library Staff Interviews

IL Training as a Public Need
A majority of library staff interviewed in this study (twenty-two of twenty-eight) identified IL training as a significant role of the public library. Many of these respondents talked about how customers have expressed a need for IL training that moves beyond traditional reference desk encounters in which library staff give answers without a defined training moment. Library staff indicated that customers are "certainly asking for it" (IL skills training) and that they were "definitely interested [in training opportunities]" related to advanced Web searching, catalog use, database use, and instruction on productivity software (e.g., Microsoft Word).

The Public Librarian as an IL Provider
Library staff also spoke about the significance of the role of the public librarian as an IL provider. Two significant identifications related to this concept emerged from the interviews: library staff as teachers/agents of empowerment and library staff as "public parents."

Many respondents focused on their role as teachers/agents in facilitating users' continuing education: "We should be about lifelong learning; we certainly try to support lifelong learners, and that has to include an element of training." This teaching role was sometimes tied to the idea that the instructional role of the public librarian is vital and greatly influential to the community. Said one staff member, "We're all agreed that this is just such an important thing, to empower people." Some staff members emphasized the growth of their instructional role: "Our role is naturally evolving to more of an instructional role whereby we show [our customers] how to use the tools. . . . You can maintain a dependency, or you can create a user, an independent user, and there's no end to them. . . . It's not like we're going to work ourselves out of a job or anything." This positive attitude toward an instructional role for the public library was reflected

in the survey phase of the study, in which 85 percent of respondents responded positively about the instructional role [22].

Other respondents emphasized that the instructional role seemed to be something new in public librarianship. These staff indicated that while this role has yet to be completely embraced, it is certainly coming to the fore: "When people come into the library and ask a question, they come for an answer. They don't come to be taught. And that is always a tension for me because I think as librarians our model is almost to teach."

Other library staff, however, identified themselves as something of a public parent with respect to their IL-providing role—someone who assists customers in realizing the consequences of their online actions and helping them avoid controversial Web sites. Other respondents strongly identified with a guiding role, that of a type of problem solver for customers who have difficulties navigating through "this big sea of information" and online material, while other respondents located their role as that of a filtering agent or an intermediary "sifter" of information. One library staff member emphasized the importance of "whatever we can do to try to help people to kind of sift through all the information out there because it's overwhelming."

Challenges Involved in IL Training
Library staff respondents identified numerous challenges with respect to IL training in their institutions. These challenges can be assembled into four categories:

- broader societal challenges,
- institutional challenges within libraries,
- infrastructural problems within library buildings, and
- pedagogical challenges related to training.

Broader societal challenges.—A number of respondents talked about the pervasiveness of news media and the role of "infotainment" in people's lives, with the corresponding need for public library customers to be able to access and evaluate media information. Other respondents noted the challenges inherent in the public library's role in narrowing the digital divide, to "level the playing field" for all customers.

Institutional challenges within libraries.—Many library staff members identified challenges with respect to problems such as poor marketing or advertising of IL training programs. Other respondents talked about challenges pertaining to staffing issues. Staff members from large urban libraries bemoaned the inability to assign staff to lead training sessions or

teach seminars for fear of losing human resources at busy information services desks. In the smaller libraries, respondents talked about the lack of staff to do training, either because of the fear of losing staff at front desks or because of the lack of funding to hire new workers. Other respondents indicated that staffing issues connected to broader budgetary challenges. One staff member from a large public library said, "For public training there is no budget, and there is in fact only a small budget for even staff training. That's a problem." Even at the largest library visited in the study, where a number of staff talked extensively about training activities, one respondent noted that the institution was committed to IL training in principle but not "in terms of funding or a budget line." For other library staff, funding and budgetary challenges were secondary to concerns about a lack of time in the library schedule for developing and implementing training activities.

Another organizational challenge revealed in the interviews dealt with a lack of focus within public library strategic planning on the pursuit of an IL training agenda. One respondent talked about the challenge of the public library trying to be "all things to all people, and yet we can only offer them a limited number of things," with IL training often relegated to a second-level priority. Another respondent noted that her senior management has challenged the need for training opportunities that focus on basic technological skills, such as using a mouse.

Infrastructural problems within library buildings.—Many respondents talked about day-to-day technological problems. These types of problems were prevalent in the larger libraries as well as the smaller institutions. Some of the staff from larger libraries complained about an Internet infrastructure that was incompatible with public demand. The library staff member from the institution at the Canadian First Nations reserve talked about the slowness of dial-up Internet services. Other respondents identified challenges with providing and maintaining computers in a limited physical space.

Pedagogical challenges.—Respondents discussed a number of challenges they faced pertaining to IL philosophy. One staff member identified the challenges of training staff to be better teachers. This respondent, observing that the IL enterprise is more than a task-oriented, how-to explanation of searching steps, talked about the difficulties in moving from "an apprenticeship model of training clerical staff and . . . bringing in more academic training" or a more substantive teaching model. Another respondent differentiated teaching from content delivery and illustrated the challenge experienced in some public libraries of moving from "giving the answer" to establishing a pedagogy that empowers customers to find information.

Several respondents talked about the ennui they experience with mun-

dane technological questions (e.g., how to send e-mail, open computer applications, log into accounts) and their desire to assist the public in higher-order information-finding tasks. Other staff spoke about customer-related challenges: working with customers at very low levels of IL or contending with the reality that the public library is unable to remedy the various socioeconomic problems of the users who come for help.

One interesting, yet unsettling, theme was the informal training provided to students at all levels, from grade school through to postsecondary, who apparently receive insufficient training in their educational contexts. This issue was noticeable at all the libraries visited. It is evident that the libraries visited in this study were both reacting to external pressures and trying to proactively anticipate the needs of their customers. As respondents talked about the challenges of their IL training work, they emphasized the need for public libraries to become more proactive and responsive to community needs, to support the lifelong learning of their users, and to assist people to learn new technologies.

Outcomes of IL Training

Throughout the interviews, library staff members identified various outcomes that they observed in their customers. A number of respondents described outcomes in distinctly instrumentalist terms, indicating that as a result of training, customers became more computer literate and more skillful searchers and evaluators of information. Among these types of responses, customers were described to have narrower focus in their research topics, greater precision in their search terms, a reduction in generalized keyword searching through Google, and an increased use of varied information resources such as databases. One respondent noted that an outcome of training for customers is greater information-seeking competence in institutions outside the library (e.g., government agencies). However, in identifying these outcomes, library staff indicated that they had not used any particular tests or other assessments to measure customer skill acquisition.

Respondents observed, in their customers who received training, a number of distinct affective benefits from IL training: increased confidence, self-esteem, self-sufficiency, and a motivation to learn and explore information and to share their new skills with others. One theme observed among the affective outcomes was one of becoming a better person, of self-improvement through acquiring IL skills. Other respondents expressed a belief that their training helped build citizenship skills in their customers, giving them an increased sense of community.

Other respondents discussed various cognitive/learning outcomes achieved by their customers, such as the realization that the research process is more about critical thinking than about discrete competencies such

as logging into a computer or setting up an e-mail account. Said one library staff member, "Rather than just saying, you've got these skills, you know. You know how to get onto the Internet and build yourself an e-mailbox, but you can think beyond that, too."

Several respondents talked about the acquisition of new IL skills being the means of opening up and expanding the world for their customers. Some staff described how customers felt a type of "door-opening experience." Other staff members noted that "the most positive outcome probably is the request for advanced training." Respondents related stories about how customers who had received IL skills training had made significant achievements because of their newly acquired skills, from finding permanent shelter to finding employment to establishing a stronger connection with family members through e-mail. These kinds of outcomes were reported in the survey findings [22], and the theme of connectedness is similar to that observed in a previous study and reported by undergraduates with respect to their instructional experiences [23].

However, other respondents admitted that identifying outcomes of IL training was difficult—and perhaps impossible—to do from the public library service desk. Some library staff said that training sessions and reference questions only lasted for a short period of time, and the results of training are not often immediately noticeable. Many of these customers leave the library, and follow-up is rarely done to monitor training success.

Library Staff Interviews: Beliefs about Customer IL Skills
Library staff reported that many customers have low levels of IL skills, an observation that runs counter to how the majority of customer interviewees perceived their abilities. Several library staff respondents acknowledged that customers have not only low IL skills but general deficiencies in basic computer literacy.

Respondents indicated that customers avoid higher-level online research due to a lack of IL skills. Several staff members talked about how customers would typically make only basic Internet searches, usually with Google, and then abandon their inquiries without refining their searches or consulting other information sources. Some staff members described how customers—even younger, computer-literate library users—appeared not to have developed sufficient IL skills to determine appropriate information sources or narrow search topics or search. Other respondents talked about how customers lack the capacity to assess the complexity of their information needs.

Some library staff stated that their customers never come for help, even though they require assistance, and that those who do ask for assistance often feel resigned or fearful when attempting to find information. One staff member reported that her customers consider libraries to be "a little

bit foreign and a little bit scary." Other respondents talked about how some customers try to hide their lack of IL—"They don't want people to know that they don't have the skills to look for information." Many respondents, however, emphasized the inability of many customers to perform basic technological tasks, such as opening a Web-based e-mail account, sending e-mail, or using a search engine, and that it was to the public library that people turned for this kind of assistance.

Administration of IL Training

Library staff were asked about the range of training opportunities being provided for customers; these varied tremendously among the libraries in the study. All libraries provided informal training to customers as help was needed and learning opportunities arose, and library staff reported that their customers were open to training opportunities. In all of the libraries investigated, staff said that the majority of informal training tended to be in the form of one-on-one interactions with customers.

Only the three largest libraries in this study offered regular and formal IL sessions in using a library catalog and online research. These institutions also offered classes on basic computer use (using a mouse, using a Web browser, and sending e-mail). The libraries in the two large urban centers organized their own in-house training sessions, which were conducted by both professional librarians and paraprofessional staff, while the library in the midsized city organized classes with a librarian in conjunction with a community organization whose mandate was the provision of free Internet service and training. The two smaller libraries in this study have no professional-level staff; however, one of these institutions is able to offer its customers the occasional workshop delivered by regional library staff. The variety of training and staffing models was apparent in the survey data [22].

The largest library in the study offered training to its staff on how to teach and promoted staff efforts to acquire further skills and education. Resource allocation for training purposes varied between the libraries in the study, but as indicated above, none had a dedicated budget, although the largest library had a dedicated training coordinator. The largest library in the study had several spaces dedicated to training; these training areas had Internet-enabled computers and technology for teaching and making presentations. The other urban libraries in the study had comparatively smaller training spaces. The training area in one city library was built in cooperation with a local community group and continues to be a shared space. The small-town library had no training space but took advantage of regionally provided training workshops for its customers. The library on the Canadian First Nations reserve also had no training space; this facility had a total of five computers set up at three tables.

Evaluation of training activities was typically informal. Staff from the larger libraries talked about seeking feedback in their sessions with respect to appropriateness of subject matter and presentation materials, organization of the instructor, helpfulness and knowledge of the instructor, appropriateness and comfort of the training space, and so on. The three larger libraries all attempted to evaluate customer satisfaction with IL sessions.

The libraries differed in their perspectives on the importance of evaluation. One staff member noted that at her institution, some trainers seek feedback, while others do not see the need for it. One staff member from the largest library stated that her institution's evaluation forms were taken seriously with respect to improving training sessions and that library staff peer review was sometimes used to gauge instructor effectiveness. The other major urban library had similar evaluation forms for its workshops, but one respondent from that institution noted that there was no formal follow-up after evaluation. Staff from the two large urban libraries noted that evaluation was sometimes problematic as customers were rarely specific in their feedback. Staff at the midsized city library said that they used a feedback form to measure customer satisfaction. Staff at the small-town library reported that evaluation was done anecdotally.

Conclusion

Of the five libraries investigated, special attention should be paid to the largest urban library in this study, as this institution's commitment to IL training was particularly strong. While this library was the largest institution in the study and may have benefited from greater financial and human resources, it demonstrated a unique sense of diligence in providing IL training to the community. That library offered training programs that were particularly specialized for various groups of people, from new Canadians to fine arts researchers to job seekers and women "who had been on the streets. . . . They were in recovery and were looking; they were at the point where they were looking to enter to the workforce." The library also offered specialized training sessions to the mentally ill and to people who had recently left prison and were looking for work. Many classes at this library were offered in different languages and in concert with a variety of community agencies. This library had a dedicated training coordinator, who prepared workshops when specific requests were made by library staff or the community.

Currently, all five public libraries in this study provide Internet access to diverse groups of people: the young and the old, the economically advantaged and disadvantaged, and long-time residents of the community

and newcomers and visitors. There is evidence that these institutions provide Internet and information access to people with few or no technological means (e.g., they have no Internet access at home or at work, or they are away from where they typically have computer access). It is also apparent that in these libraries, more men than women are making use of Internet access services, and the data suggest that many public library users fall into the lowest income brackets or are socially marginalized in other ways (e.g., new Canadians in large urban centers).

However, the government policy goals are only partially being fulfilled through public libraries. Although Internet access is being provided to those with no private alternative, people are mostly training themselves, developing their IL skills through personal experience and seeking help from informal personal sources, such as friends and family, rather than through formal library training. It is interesting to note that none of the customers interviewed in this study mentioned seeking the help of library staff, although the library staff interviewed believe that they do a great deal of informal IL training. Additionally, despite national policy goals, Internet uses in public libraries emphasize communication rather than economic development or job searching.

This study has provided an in-depth examination of the role of public libraries in developing IL skills to Canadian citizens. People who do not attend postsecondary educational institutions, which typically are mandated to provide at least a minimum level of IL skills training for students, have few places to turn for training in this increasingly important skill set. If citizens are to participate fully in the digital age, in order to efficiently access, effectively evaluate, and appropriately use information to inform their decision making in all aspects of their lives, then these citizens require training in IL skills. Time spent using computers and surfing the Internet may or may not develop these skills; more likely, this experience develops confidence rather than actual skills. However, for some people the increased sense of community and of self-efficacy that accompanies Internet use may be a strong starting point for development of more sophisticated online skills. That opening presents an opportunity for public libraries to fully embrace a significant role in training for IL skills; that opening is also the juncture at which customers' experiences of IL (particularly customers' emphasis on being able to access the Internet and get the information they need) correspond to librarians' understandings of IL as a set of information finding and evaluating skills. In addition, customers' and librarians' comments reported here demonstrate that focusing on social and psychological outcomes of IL strongly supports further efforts at providing customers with both Internet access and the skill set to use that access successfully. From this study, it is apparent that some public libraries are embracing this role, while others are more hesitant. It is clear, however,

that such training requires more than encouragement and hardware. The interviews with librarians show that not all are embracing the teaching role with enthusiasm; thus, some in the library community must be convinced that the training role is a legitimate one and that training efforts must be funded. As well, citizens must be convinced that libraries can legitimately fulfill this role. Full citizenship in the information society may depend on it.

Finally, support from the policy community will be required to address this opportunity. Decision makers and funders in Canada have yet to be convinced of the value of IL skills to modern citizenship and of the proactive role that librarians and public libraries can play in developing those skills. That argument remains to find a place on the Canadian policy agenda beyond the initial objectives of the CAP program. Significant resource allocations must follow; currently public libraries are not sufficiently funded to fully participate in this project. This study shows that demand for public Internet access in public libraries is steady and that access is valued by the general public making use of networked computers in public libraries. This unfilled potential for IL skills development remains a significant policy and practical challenge for Canada.

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