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Abstract: This article shares results from the latest survey in a 20-year study of information literacy instructional practices across Canadian academic libraries. The online survey was sent to Canadian academic librarians via professional listservs. Respondents face many of the same challenges they have faced for decades, and most have yet to incorporate the Association of College and Research Libraries's (ACRL) Framework for Information Literacy in Higher Education (IL Framework) into their practice. The results offer insights into librarians' current instructional approaches, the role of the IL Framework, instructional priorities and aspirations, and barriers and challenges faced by instructional librarians. These data have implications for improving and supporting instructional practice as well as for the education of future librarians.

Keywords: librarians, information literacy, teaching, Canadian academic libraries, longitudinal research

Résumé : Cet article présente les résultats de la plus récente enquête réalisée dans le cadre d'une étude de vingt ans portant sur les pratiques pédagogiques d'initiation à l'information dans les bibliothèques universitaires canadiennes. Le sondage en ligne a été envoyé aux bibliothécaires universitaires canadiens via des listes de diffusion professionnelles. Les personnes interrogées sont confrontées à beaucoup des mêmes défis auxquels elles ont été confrontées pendant des décennies et la plupart doivent encore intégrer le cadre de l'Association of College and Research Libraries (ACRL)

pour l'enseignement de la maîtrise informationnelle dans leur pratique. Les résultats donnent un aperçu des approches pédagogiques actuelles des bibliothécaires, du rôle du cadre de l'ACRL, des priorités et des aspirations pédagogiques, ainsi que des obstacles et des défis rencontrés par les bibliothécaires pédagogiques. Ces données ont une incidence sur l'amélioration et le soutien de la pratique pédagogique, ainsi que sur la formation des futurs bibliothécaires.

Mots-clés : bibliothécaires, maîtrise de l'information, enseignement, bibliothèques universitaires canadiennes

Introduction

There is currently an urgency to the global public conversation about the nature of knowledge, information, and truth. In North America, we now hear neologisms such as “alternative facts,” and we read articulate discussions about whether we live in a “post-truth” era (Illing 2018). Are people truly unable to distinguish fact from fiction in the news they follow? There is no doubt that developing the skills to find and evaluate information is as important as ever. Within the post-secondary context, it is primarily librarians who are relied on to lead the development of this skill set—that is, information literacy (IL). High-quality IL instruction remains critical to help students succeed academically and to sensitize them to the importance of identifying reliable information in the sea of misinformation and disinformation in which we all find ourselves. Thus, IL instruction continues to be a significant service in academic libraries.

The past several years have brought noteworthy changes to the IL landscape in Canada. The Framework for Information Literacy for Higher Education (IL Framework) was officially endorsed by the Association of College and Research Libraries (ACRL 2015) in January 2016, ostensibly codifying a shift away from skills-focused IL toward a more conceptual approach. The ACRL made another change in June 2016 when it formally rescinded the Information Literacy Competency Standards for Higher Education, on which librarians have based many IL programs over the past 16 years (ACRL Insider 2016). Some librarians have begun developing a critical pedagogy for IL, first by meeting virtually on Twitter and eventually by organizing dedicated workshops and publications (Farkas 2017; Pagowsky and McElroy 2016). Meanwhile, in the larger system of higher education within which academic libraries exist, the past few years have seen significant changes around technology in learning, increasing use of metrics and analytics, and labour casualization, to name just a few.

We can point out rhetorical, theoretical, and contextual changes such as these fairly easily. But much less is known about actual changes to practice and about whether or not, or how, IL instruction practices are changing over time within Canadian academic libraries. This gap matters because without a current picture of these practices, we cannot understand them or identify opportunities for improvement. This is the gap addressed by our study, which is the latest iteration in a longitudinal study of IL practices in Canadian academic libraries stretching back over 20 years (Julien 2000, 2005; Julien and Leckie 1997; Julien, Tan, and

[Merillat 2013](#)). It is the only one of its kind in Canada. The purpose of this study is to document instructional practices in Canadian college and university libraries in order to enable evidence-based understanding and change.

The fifth and most recent national survey of Canadian college and university librarians was conducted in late 2016 and early 2017. Results paint a current picture of IL practices in Canada, including content and methods of instruction, technological change in instruction, approaches to assessment and evaluation, the impact of the new framework, and respondents' instructional objectives, priorities, and aspirations. The current data are also placed in context with data from the previous surveys in order to identify longitudinal trends, and enduring barriers and challenges, over the full 20-year dataset.

Research questions

This study asks these questions, as posed in the first of the surveys:

1. "Are academic librarians changing their pedagogical methodologies to cope with the increased demands for instruction?"
2. "Are the conceptual underpinnings of bibliographic instruction [a now-outdated term that has been replaced by "information literacy"] changing in relation to the contemporary information retrieval environment?"
3. "How does the bibliographic instruction function fit into the structure of the library?"
4. "Is there a commitment to bibliographic instruction in the face of fiscal restraint?" ([Julien and Leckie 1997](#), 5)

Method

Data for the latest round in the study were collected in late 2016 and early 2017. The survey language was updated with two very minor wording changes from the previous version following feedback from three professional librarians in different geographic locations. Ethics approval was obtained from the University of Alberta Research Ethics Office. To invite responses, links to English and French versions of the online survey instrument were repeatedly distributed through library-related listservs in Canada, including all available regional or provincial lists, such as Jerome-L, which is widely read within the Alberta library community, and specialized lists likely to be read by Canadian academic librarians, including the lists of the Canadian Association of Professional Academic Librarians, the Canadian Association for Information Science, the Librarians' Research Institute, and the Canadian Health Libraries Association.

Using listservs to invite responses is new to the 2016–17 iteration of this survey. Over the years, it has been necessary to update the recruitment mechanisms in the study as both technology and library organizations have evolved. However, while recruitment mechanisms have changed over time, the profile of respondents has not. Most continue to be librarians whose job titles indicate a combination of public service responsibilities, such as liaison, reference, and research support, while a minority (22% in the latest data) have titles that centre

their involvement with teaching, such as “information literacy librarian.” This consistency of characteristics across respondents over time enables us to compare and discuss the data across the years.

All academic librarians with instructional responsibilities were invited to participate. The survey instrument ([Appendix 1](#)) asks respondents:

- Who does IL teaching at your institution?
- What kind(s) of IL instruction are being offered?
- What methods are being used in IL instruction?
- Who is receiving IL instruction?
- How much has technological change affected the content and delivery of instruction?
- What are, and what should be, the predominant objectives of IL instruction?
- Who should be responsible for aspects of IL instruction?
- How is IL supported financially?
- How is IL instruction promoted?
- What challenges in providing IL instruction do respondents report?
- How is the new IL Framework being incorporated into practice?

Since this a study of library workers’ routine practices, it is not necessary to deploy or operationalize a single solidified definition of IL. Rather, respondents instantiated diverse conceptions of IL through the act of describing their practices to us.

The call for participation generated 213 responses in English and French. There were too few responses to the French survey to analyse separately, so the English and French data are presented here together. The data were analysed quantitatively and qualitatively; content analysis was used to analyse open-ended responses and comments ([Julien 2008](#)). Historically, the longitudinal survey results show that challenges have focused on limited resources (financial, physical, time pressures), on complex campus politics and relationships, and on students’ narrow understanding of the value of IL and of librarians. The latest survey results were compared with data from the previous surveys to paint a picture of instructional practices as well as barriers and challenges facing instructional librarians as they seek to inculcate a critical skill set in an evolving social context that demands a well-informed response.

Results

Wherever possible, the results presented here include data from the previous iterations of the study—1995, 2000, 2005, and 2011—in order to enable comparison, discussion, and identification of gaps to be filled through future study.

Respondents

As in 2000, 2005, and 2011, most respondents work in universities (73%), with those working in colleges or technical institutes presenting as the second-largest respondent group (25%). Respondents represented evenly from institutions of

Table 1. Disciplinary focus of respondents' libraries

Disciplinary focus	Percentage of respondents (n) ^a
Social sciences/humanities	28.8 (17)
Health/medicine	23.7 (14)
Science	23.7 (14)
Business/management	16.9 (10)
Other	15.3 (9)
Education	11.9 (7)
Engineering	11.9 (7)
Law	8.5 (5)
Technical/trades	8.5 (5)
Fine arts	6.8 (4)

Note:
^a Percentages were based on the number of respondents to this question. Several respondents work at libraries that focus on multiple disciplines (e.g., business and trades). For this reason, the sum of the percentages exceeds 100%.

various sizes: 34% work in institutions with fewer than 10,000 undergraduate students; 35% work in institutions with 10,000 to 20,000 students; and 31% work at institutions with more than 20,000 students. Of the 123 respondents who provided job titles, 27 (22%) have “instruction,” “teaching,” “learning,” or “information literacy” in their title. Table 1 contains the disciplinary focus of respondents' libraries. As in past survey rounds, respondents from social sciences and humanities, health and medicine, and science libraries form the largest disciplinary groups. Notable from this round's disciplinary distribution is the presence of respondents from trades and fine arts libraries, which are listed in the results for the first time.

Among respondents who responded to a question about whether their library offers formal (scheduled) IL instruction, 93.7% responded in the affirmative. This is the highest percentage recorded in this study, exceeding the results of 2011 (89.3%), 2005 (87.3%), 2000 (77.4%) and 1995 (79.1%). When asked whether their instructional program has written objectives, 50.4% of respondents confirmed that they have a written statement of instructional objectives. This exceeds the presence of written objectives documented in 1995 (27.8%), 2000 (21.2%), 2005 (33.2%), and 2011 (39.8%). However, the presence of written instructional objectives remains markedly low when compared with the prevalence of scheduled IL instruction. This suggests that a proportion of IL instruction occurs without articulated objectives. In turn, the absence of clear objectives can be expected to compound the challenges of capturing the difference that library staff make through their teaching work.

Learners

As table 2 indicates, undergraduates within specific disciplines were the predominant client group of focus for respondents. For the first time, this group surpassed first-year students, who for the 1995–2011 period were the group that most respondents consistently reported focusing on with their instruction. The

Table 2. Client groups receiving instructional focus (in order of percentage)

Client group	1995 (%)	2000 (%)	2005 (%)	2011 (%)	2017 (%) (n) ^a
Undergraduates in certain subject disciplines	–	59.1	71.9	64.2	79.6 (94)
First-year students	56.0	84.6	78.4	71.5	67.8 (80)
Postgraduate students	40.0	–	41.2	46.3	33.9 (40)
Teaching staff (faculty)	34.0	46.6	46.7	40.7	28.8 (34)
Other	–	–	21.2	19.5	23.7 (28)
Adult re-entry students	37.0	40.4	35.7	28.5	18.6 (22)
Transfer students	–	–	–	–	8.5 (10)
General community	–	–	–	–	6.8 (8)

Note:

^a Percentages were based on the number of respondents to this question. Numerous respondents reported providing instruction to multiple groups. For this reason, the sum of the percentages exceeds 100%.

Table 3. Proportion of undergraduate students reached by instructional program

Proportion of undergraduate students	2005 (%)	2011 (%)	2017 (%) (n)
76–100%	26.8	27.7	21.1 (24)
50–75%	28.3	28.6	21.9 (25)
Less than 50%	33.8	26.9	34.2 (39)
Not able to determine	10.1	11.8	16.9 (20)
Other ^a	2.0	5.0	5.3 (7)

Note:

^a This category was selected by several respondents whose libraries do not serve undergraduate programs. Additionally, respondents also used this category to provide additional information about the undergraduates reached by their instruction or about the challenges of estimating the proportion reached.

percentage of respondents focusing on teaching faculty continued to decline, from a high of 46.7% in 2005 to 28.8% in the 2016–17 data. For the first time, we asked respondents to report on less traditional potential client groups. Transfer students form the focus of instruction for 8.5% of respondents, while the general community form the focus for 6.8% of respondents.

For the first time, fewer than half of the respondents reported that their instruction program reaches more than half of their institution's undergraduates. In 2005 and 2011, the proportion of respondents reaching more than half of the undergraduates held steady at 55.1% and 56.3%, respectively. In 2016–17, this figure was down to 43.0%. Table 3 provides a more detailed look at the proportion of students reached by respondents' instructional programs.

Who teaches and how

As established in previous iterations of this survey, the library workers who most frequently reported to be primarily responsible for IL instruction are reference and public services librarians (table 4). Titled instructional librarians are next, followed by librarians outside either of these two categories and library staff.

Table 4. Types of staff primarily responsible for instruction

Type of staff member ^a	2005 (%)	2011 (%)	2017 (%) (n)
Reference/public service librarians	74.4	53.0	63.7 (79)
Full-time instruction librarians	18.6	29.3	35.4 (44)
Other librarians on staff	21.6	53.0	31.4 (39)
Other staff ^b	35.7	36.6	18.5 (23)

Notes:

^a Respondents could select more than one response, so the yearly total percentages exceed 100%.

^b This category primarily included library assistants, who were also described by respondents as technicians, public service assistants, and para-professionals, sometimes with the clarification that these colleagues perform basic or scripted instruction. Several respondents also reported having co-op students provide instruction.

Table 5. Staff time spent on instruction at the start and through the academic year

Staff time spent on instruction	Start of academic year (%) (n)	Remainder of academic year (%) (n)
0–25%	27.0 (31)	73.0 (84)
25–50%	45.0 (52)	24.0 (28)
51–75%	23.0 (27)	3.0 (3)
> 75%	4.0 (5)	0.0 (0)

There was a slight increase in the presence of full-time instruction librarians and a decrease in the “other staff,” mainly including library assistants, who take primary responsibility for instruction.

Library staff who conduct IL instruction do so mainly at the start of the academic year. Table 5 compares respondents’ reports of how much staff time is spent on instruction at the start of the academic year with how much time is spent throughout the rest of the year. This is a quantitative presentation of the “front-loading” phenomenon, in which most IL instruction occurs earlier in the academic year than would be ideal for significant student learning experiences. The time use reported in the current survey does not differ appreciably from the 2011 survey.

Respondents used a wide variety of approaches to evaluate the effectiveness of their instruction (table 6). (Evaluation is separate from the assessment of student learning, reported in the section immediately following.) The most popular approaches reported by respondents correspond to those of past study rounds, including informal faculty feedback (71.0%), informal student feedback (63.0%), self-evaluation (53.0%), and student feedback questionnaires (43.0%). Of these, the most notable increase (+ 14%) can be seen in the percentage of respondents who indicated that they are using some form of self-evaluation. Simultaneously, fewer respondents reported doing no evaluation at all, a figure that had declined from 29.3% in 2011 to 13.0% in 2016–17. These two changes, with more respondents conducting self-evaluation and fewer conducting no evaluation, may indicate growth in reflective practices, which would be a positive signal of respondents’ engagement with, and commitment to, their IL instruction work. Table 6 contains full details of respondents’ evaluation approaches.

Table 6. Evaluation of instructional effectiveness

Type of evaluation	1995 (%)	2000 (%)	2005 (%)	2011 (%)	2017 (%) (n)
Informally from feedback received from faculty	70.6	76.0	79.9	61.8	71.0 (70)
Informally from feedback received from students	71.9	70.2	70.4	55.3	63.0 (62)
Self-evaluation by individual instructors/librarians	40.6	41.3	41.7	39.0	53.0 (52)
With feedback questionnaires to students	39.4	34.6	41.7	33.3	43.0 (43)
By testing students on what they have learned	26.4	25.5	28.1	—	—
By reviewing student learning assessment results	—	—	—	13.8	18.0 (18)
With feedback questionnaires to faculty	10.6	16.3	15.1	11.4	21.0 (21)
Through citation analysis of course assignments	—	—	—	—	3.0 (3)
Other ^a	—	—	8.5	6.5	13.0 (13)
We do no evaluations	40.6	41.3	13.6	29.3	13.0 (13)

Note:

^a Responses to “other” include peer review of teaching, focus groups with faculty, pre- and post-tests, and statements that evaluation is conducted differently by different librarians in the same library or lacking.

Table 7. Assessment of student learning

Type of assessment	2011 (%)	2017 (%) (n)
Faculty feedback	—	57.6 (57)
Through formative assessment during in-class sessions	29.3	39.4 (39)
Through student self-assessment	27.6	36.3 (36)
Through IL assignments	31.7	33.3 (33)
Through questions and activities integrated into course assignments	26.0	33.3 (33)
Through quizzes/tests	24.4	29.3 (29)
We do no assessments	35.8	17.2 (17)
Other	13.0	17.2 (17)
By comparing pre- and post-instruction test results	13.8	16.2 (16)
Through citation analysis of course assignments	—	4.0 (4)

The survey also asked respondents separately about their approaches to assessing student learning (table 7). Here, faculty feedback again predominates, with 57.6% of respondents reporting that they use it to understand how much students are learning from their teaching. While the relative predominance of assessment approaches was the same in 2011 when this question was introduced and in 2016–17, what the 2016–17 figures reveal is across-the-board growth in assessment practices. In other words, as table 7 illustrates, all forms of assessment show increases. Respondents reporting that they do no assessment at all have declined from 35.8% to 17.2%.

Table 8 presents the strategies used by respondents to generate publicity for their instructional programs. Personal faculty contact (84.8%) continues to be the most frequently reported publicity strategy, outstripping more generic contacts with faculty, such as letters (57.6%), online notices (56.6%), or departmental meetings (55.6%). Social media, included in the survey for the first time, is used for publicity by 38.3% of respondents, placing it in the middle of the pack. We also documented an extant view that no publicity or awareness-raising efforts are needed; several respondents articulated that because their IL instruction is course

Table 8. Publicity for instruction

Type of publicity	1995 (%)	2000 (%)	2005 (%)	2011 (%)	2017 (%) (n)
Personal faculty contact	83	76.0	89.4	91.1	84.8 (84)
Notices or letters to faculty	70	71.2	73.2	68.3	57.6 (57)
Notices on web	–	42.3	57.1	49.6	56.6 (56)
Departmental meetings	–	–	–	–	55.6 (55)
Social media	–	–	–	–	38.3 (38)
Posters	–	44.7	39.9	23.6	26.2 (26)
Email discussion lists	–	–	–	–	21.2 (21)
Notices in campus newspaper	42	34.6	25.3	22.8	6.1 (6)
Other ^a	–	–	22.2	17.9	7.1 (7)

Notes: only 5% of respondents indicate that they do not purposefully promote instruction within their libraries.
^a Responses to “other” include observations that respondents’ teaching is course integrated so there is no perceived need to promote instruction as well as additional promotional venues such as an intranet, fliers, or the undergraduate calendar.

Table 9. Mean importance rank for instructional objectives^a

Objective	Mean rank (1 = Highest)		
	2005	2011	2017
Teach students how to find information in various sources	2.04	1.71	2.3
Teach students general research strategies	2.33	1.85	2.46
Teach students how to critically evaluate the quality and usefulness of information	3.27	2.02	2.58
Other ^b	–	2.23	3.33
Teach students how to locate materials in the library	2.84	2.26	4.16
Teach students how databases in general are structured	4.07	3.32	4.71
Teach awareness of technological innovations	5.51	4.19	6.08
Teach students how to manage information	–	–	4.79

Notes:
^a These data reflect the English language respondents only, as only a single French language respondent completed this question.
^b The responses for “other” were wide-ranging.

integrated, or grounded entirely in course research assignments, there is no need to promote it.

Respondents ranked their current instructional objectives (table 9) and preferred instructional objectives (table 10). The single respondent who completed these items in the French language survey indicated that the most important current and preferred objective is to “teach students how databases in general are structured,” which differs from the English language respondents. Teaching students how to find information in various sources has consistently remained the top current objective for respondents since 2005, followed by teaching students general research strategies. Respondents in the current and 2011 surveys ranked teaching students how to critically evaluate the quality and usefulness of information above all other preferred objectives.

Table 10. Mean importance rank for preferred instructional objectives^a

Objective	Mean rank (1 = Highest)		
	2005	2011	2017
Teach students how to critically evaluate the quality and usefulness of information	2.82	1.45	1.82
Teach students general research strategies	2.27	1.94	2.59
Teach students how to find information in various sources	2.29	1.98	2.67
Other ^b	–	2.43	3.00
Teach students how to locate materials in the library	3.44	3.04	4.84
Teach students how databases in general are structured	4.24	3.60	4.82
Teach awareness of technological innovations	5.50	4.09	5.75
Teach students how to manage information	–	–	4.56

Notes:

^a These data reflect the English language respondents only, as only a single French language respondent completed this question.

^b The responses for “other” were wide-ranging.

Table 11. Topics of instruction

Topic	1995 (%)	2000 (%)	2005 (%)	2011 (%)	2017 (%) (n)
Online databases	–	–	97.5	95.9	92.4 (109)
Search strategies (e.g., Boolean)	–	–	–	87.0	86.4 (102)
Library use in general	92.0	85.1	89.4	86.2	84.7 (100)
Catalogue/online public access catalogue	90.7	89.9	96.0	89.4	73.7 (87)
Internet/World Wide Web	52.5	84.1	83.9	81.3	66.9 (79)
Bibliographic management tools	–	–	–	–	62.7 (74)
Scholarly communication (e.g., open access publishing, open education resources)	–	–	–	–	53.3 (63)
Citation metrics	–	–	–	–	39.0 (46)
Electronic documents	–	–	–	66.7	36.4 (43)
Other print reference materials	73.5	59.1	51.8	39.0	30.5 (36)
Library classification system	50.0	40.9	46.2	41.5	24.6 (29)
Government documents	35.8	31.7	28.1	22.0	24.6 (29)
Other ^a	–	–	25.1	27.6	24.6 (29)
Audio-visual materials	21.6	16.8	19.6	21.1	18.6 (22)
Print indexes or abstracts	76.5	45.7	34.7	13.0	8.5 (10)
CD-ROM resources	86.4	79.3	26.1	7.3	0.08 (1)

Note:

^a Responses to “other” are wide-ranging and include, from most to least predominant: specific citation styles (e.g., APA, MLA); statistics or data, academic integrity, legal information, special collections or rare materials, specific software tools (e.g., NVIVO, Excel); research data management, primary sources, literature reviews, the IL Framework, and LibGuides.

Table 11 shows topics of instructional focus. There have been significant and expected changes in the topics of instruction as they relate to format, such as declining instruction for CD-ROMs, print reference, and print indexes. Meanwhile, there were striking changes to the conceptual contours of instruction reported by respondents. Examples include the growth in teaching citation metrics and scholarly communications, which not only rely on specific formats

Table 12. Methods of instruction

Topic	1995 (%)	2000 (%)	2005 (%)	2011 (%)	2017 (%) (n)
Individualized instruction (one on one)	86.4	82.2	91.5	85.4	89.0 (105)
Hands-on instruction in computer lab	43.2	63.9	77.9	70.7	86.4 (102)
Lectures/demonstrations in subject classes	72.2	66.3	79.4	58.5	83.9 (99)
Pathfinders or subject guides (e.g., LibGuides), web-based	—	—	64.2	52.0	83.1 (98)
Group instruction focused on particular courses or subjects (in the library)	—	88.0	74.9	60.2	56.8 (67)
Video recordings (e.g., YouTube videos) (formerly "videotape/CD-ROM/DVD presentations")	17.3	4.3	3.0	17.1	51.7 (61)
Web tutorials (formerly "computer-assisted instruction")	29.6	35.6	45.7	54.5	51.0 (60)
Library guides or handbooks, web-based	—	—	56.3	48.8	51.0 (60)
Group library tours	84.0	80.3	83.4	68.3	86.7 (52)
Embedded librarians	—	—	—	—	37.3 (44)
Flipped classroom	—	—	—	—	28.0 (33)
Courseware	—	—	—	30.9	18.6 (22)
Credit course	9.9	8.7	15.1	22.8	15.3 (18)
Essay assistance (workshops)	21.6	11.1	18.1	13.8	15.3 (18)
Social media	—	—	—	—	14.4 (17)
Library guides or handbooks, paper-based	—	—	53.8	34.1	12.7 (15)
Pathfinders or subject guides, paper-based	—	—	47.4	33.3	12.7 (15)
Non-credit course	15.4	13.0	16.1	11.4	11.0 (13)
Posters	21.6	9.6	9.5	6.5	6.7 (8)
Self-paced library tours (web)	22.8	13.9	6.5	25.2	5.9 (7)
Additions to course notes for distance students	—	12.5	11.1	15.4	5.9 (7)
Other ^a	—	—	5.0	8.1	4.2 (5)
Workbook program	8.0	11.1	5.5	8.1	3.4 (4)

Note:

^a Other responses included workshops in regular classrooms, a rare book library, or research commons and game-based learning.

and tools but also demand conceptual treatment of significant sophistication if they are to be taught effectively. Several participants also mentioned conceptual instruction in their comments under "other." This is an illustration of potential opportunities to update the survey instrument to better understand the growth in more conceptual approaches to IL.

Methods of instruction are summarized in [table 12](#). Comparing [tables 11](#) and [12](#), there has been a greater shift in respondents' instructional content than in their pedagogical approaches. It is possible that progress is more feasible around content because, up to a point, content can be altered without significantly altering instructional methods. This sparks numerous questions, such as how far topical change can progress without a corresponding evolution of pedagogical approaches. Future research could also investigate the influence of the power structures surrounding IL instruction on topical and pedagogical change.

The impact of technological change on respondents' instruction in the past few years is apparent in [tables 13](#) and [14](#). There is a clear trend that technology is perceived as having less impact on instructional content and delivery than was

Table 13. Degree to which information technology has changed instruction delivery

Degree of change	2005 (%)	2011 (%)	2017 (%) (n)
Not at all	4.1	4.1	8.9 (10)
Only slightly	11.3	18.7	38.4 (43)
Quite a bit	36.4	45.5	43.8 (49)
A great deal	48.2	31.7	9.8 (11)

Table 14. Degree to which information technology has changed instructional content

Degree of change	2000 (%)	2005 (%)	2011 (%)	2017 (%) (n)
Not at all	2.4	4.7	1.2	9.9 (11)
Only slightly	13.5	14.1	25.4	38.7 (43)
Quite a bit	44.7	37.7	43.4	42.3 (47)
A great deal	37.0	43.5	29.5	9.0 (10)

once reported by survey respondents. Despite this trend, however, many respondents felt that information technology is impacting their instructional delivery and content at least “quite a bit” (53.6% and 51.3%, respectively).

Respondents were asked about the elements that define IL and the level of responsibility that librarians and others should bear for teaching those elements to students (table 15). The most striking change in these data was the increase in the proportion of respondents who now believe that “understanding some ethical, legal, economic, and socio-political information issues” is an element of IL. Interestingly, fewer respondents than previously found indicated that “understanding how information is generated, organized, stored, and transmitted” is solely a librarian’s responsibility. Indeed, the proportion of respondents who indicated that librarians should take no responsibility for various elements has declined.

In answering the new question: “to what extent is your instruction informed by the new IL Framework?” 32.0% of respondents reported that “the IL Framework has had a significant impact on my instruction.” The largest proportion (66.0%) of respondents reported that the IL Framework has had either a minor influence on their instruction or no impact at all. (The remaining 2% of respondents provided only a written comment.) Among the written comments offered by some respondents, most of them stated that they are not yet aware of the IL Framework or that they were aware of it but still determining how best to integrate it into their contexts. Comments include: “I am not aware of this framework”; “I’m unfamiliar with this framework. It has not yet been emphasized in our library”; “Have not studied it, but will”; and “I should use the framework more than I do. Most of my classes are one-shots on specific topics, so I haven’t devoted as much thought to the matter as I should.” One respondent offered critical comments on the IL Framework, observing that “the framework is rife with difficulties, one of the foremost being the underlying assumption of academic work.” This respondent, working in an institution focused on “learning for the workplace,” reported using another approach to IL.

Table 1.5. Respondent beliefs about the definition of IL and teaching responsibility

Element of IL	This is an element of IL (%)						Librarians should take full responsibility (%)						Librarians should take partial responsibility (%)						Librarians should take no responsibility (%)					
	2000	2005	2011	2017	2000	2005	2011	2017	2000	2005	2011	2017	2000	2005	2011	2017	2000	2005	2011	2017	2000	2005	2011	2017
Recognizing when information is needed	68.8	78.6	80.5	80.0	12.9	11.4	19.3	13.5	77.2	80.3	73.1	51.0	9.9	8.3	7.6	3.1								
Understanding how information is generated, organized, stored, and transmitted	70.7	72.1	70.7	80.0	52.2	50.0	43.0	32.3	39.4	42.3	52.1	57.3	8.4	7.7	5.0	1.0								
Understanding some ethical, legal, economic, and socio-political information issues	53.4	64.8	67.5	83.0	8.8	9.8	15.7	12.8	76.5	74.7	78.5	63.8	14.7	14.9	5.8	0.0								
Understanding that there exists a wide variety of information sources beyond the obvious	88.9	86.8	79.7	79.0	47.6	48.5	55.7	30.9	52.4	51.5	43.4	46.8	0.0	0.0	0.8	1.1								
Understanding how to locate efficiently and effectively information from many sources	95.7	92.4	93.5	90.0	74.8	77.0	77.0	56.8	25.2	22.4	22.1	32.6	0.0	0.5	0.8	0.0								
Understanding how to use efficiently and effectively information from many sources	89.9	87.8	92.7	86.0	45.4	41.0	54.9	27.4	51.7	57.4	42.6	53.7	2.9	1.5	2.5	0.0								
Understanding how to critically analyse and evaluate information	94.2	94.4	78.9	95.0	17.5	14.8	32.2	16.8	80.1	83.2	66.9	58.9	2.4	2.0	0.8	0.0								
Knowing how to think critically in general	56.3	64.0	72.4	58.0	5.4	3.6	9.1	5.3	70.0	76.0	76.9	54.7	24.6	20.4	14.0	14.7								

Barriers and challenges

A range of challenges was suggested by the quantitative data. For example, 63% of respondents indicated that reference librarians are primarily responsible for IL, and only 36% have dedicated, full-time IL librarian(s). In addition, it is clear that many students are not receiving IL instruction, since 35% of respondents reported that they reach fewer than 50% of undergraduate students at their campuses, 20% reach 76–100% of students, and 22% reach 50–75% of students. There is also a mismatch between respondents' views about the current most important IL objective and their preferred top objective. Currently, the primary instructional objective is to teach students how to find information in various sources, but respondents' preferred top objective is to teach students how to critically evaluate information.

Another challenge revealed is that IL instruction is “front-loaded”—that is, conducted mainly at the start of the academic year. We see this by noting that 73% of respondents spend more than 25% of their time teaching at the start of the year, while 73% of respondents spend less than 25% of their time teaching throughout the rest of the academic year. This pattern runs contrary to standard instructional advice to teach at the point of need and in the context of specific course assignments. Further, only 46% of respondents believe that they meet their current teaching objectives.

Assessment and evaluation remain challenges to instructional success. The data indicate that most assessments of student learning is informal: 58% of respondents use faculty feedback, 40% assess formatively during instructional sessions, 36% use student self-assessment, 33% assess through assignments, 33% assess through questions and activities integrated into course assignments and exams, 29% use tests or quizzes, and 17% do no assessment at all. In addition, most IL program evaluation is informal: 70% of respondents use informal faculty feedback; 62% use informal student feedback; 53% use self-evaluation; 43% use feedback questionnaires with students; and 13% do no evaluation. These data suggest that the outcomes and value of IL instruction are not being tracked in ways that could be meaningfully used for advocacy or resource requests.

When asked specifically about barriers to IL instruction, respondents most often mentioned a lack of time. As one respondent noted, “it is very difficult for librarians to juggle competing responsibilities, with instruction as one of those responsibilities.” Another noted the lack of “sufficient prep time and sufficient time in the classroom.” Structural issues were also frequently mentioned. Respondents referred to “no institutional learning outcomes/graduate outcomes or policies” and issues with teaching faculty. One comment stated: “Faculty bring classes too early, with no context (no assignment) or previous instruction (no discussion of critical evaluation, no discussion of research in context of report/essay development).” Another respondent noted that in her library there was “no formalized instruction program.” A sombre reflection was shared by a respondent who reported a “general lack of interest from management but micro-management through the provision of standardized slide decks to be used as ‘guidelines.’” This kind of challenge to good instructional design was reflected

in another comment: “The one-shot session format provides very little opportunity to develop credibility or rapport with the students . . . they tell me that no grade often equals no value, so if I am not grading them then what I have to share must be unimportant.”

Another major category of challenges echoes those reported in previous iterations of this survey and relates to campus status and campus relationships. As one respondent put it,

our University Librarian simply does not see teaching as a key role for the librarians, even though we are a “teaching university,” by mandate. This is reflect [sic] in the lack of support and resources for teaching . . . repeated attempts to carve out a role or create a new position for an instructional coordinator librarian position (to develop and oversee assessment efforts, for example) have failed. There is no funding to trial and adopt new teaching tools, or develop expertise in tutorial creation. There is no priority placed on integration of library instructional resources (such as libguides) into the university’s course management system . . . the UL [university librarian] has referred to library classes on more than one occasion as “babysitting” which is very demoralizing.

Another respondent stated that in her library instruction “is undervalued, under resourced and considered not important by the administration though it is an expectation of librarians.” Another noted that the “faculty is not engaged and often not present at my sessions.” Suggesting burnout, one respondent reported: “Feeling defeated and devalued in spite of my passion for teaching and for information literacy.”

Some respondents argued that there is room for improvement in librarians’ teaching practices. One respondent explained: “Our unsuccessful instructors don’t see any need to improve their instruction; don’t accept negative feedback from the faculty or suggestions for opportunities to improve their methods from our instruction librarian.” Another noted that “librarians deliver very different sessions from one another, little oversight or evaluation of efficacy of teaching.” Most often mentioned were needs for more capacity in assessment, evaluation, and advocacy.

Other challenges identified included a general lack of resources, prompting one respondent to point to a “lack of staffing to keep up with demand for IL instruction.” A range of issues related to students was also articulated, such as students’ diversity of skill level and negative attitudes toward IL instruction. One respondent said that a challenge was “dealing with a wide breadth of student abilities, knowledge and interest in instruction within a given class.” Another respondent referred to the particular context as relevant, stating that “students often don’t see the need, as many programs are primarily vocational.”

Reasons for optimism

Despite these challenges and barriers, many respondents’ comments are optimistic about IL instruction. For example, one respondent wrote about growing faculty awareness of the value of IL instruction: “With the development of a new inquiry-based core curriculum, faculty are beginning to see that student research ability needs to be enhanced. This is promising.” Another noted: “We are generally

happy with the program we offer, and feel our students benefit from us trying to connect customized library instruction to specific assignments.”

In addition, the data show innovations in practice; as another respondent stated: “I’m very proud of the instructional librarians and the innovative approaches they are taking to reach students and faculty through our IL program.” There may also be a shift away from generic instruction, demonstrated in comments such as: “Offering relevant (and not generic) instruction is extremely important to us.” These findings are also reflected in the quantitative results: 79% are doing discipline-specific IL teaching. There is also evidence of growth in assessment and evaluation, especially self-evaluation.

Discussion

The barriers and challenges reported by participants have remained stable across the years of this study, with little change demonstrated on the most entrenched structural issues. Respondents continue to report feeling that IL instruction is undervalued and misunderstood. In future research, it would be useful to illuminate respondents’ perceptions by engaging with other data sources such as library budgets or the statistics reported by the [Canadian Association of Research Libraries \(2017\)](#), which enable an examination of library staff-to-student ratios. Future research could also investigate the interrelated structural and cultural factors that underpin the individual responses aggregated in this study’s results.

For the most part, respondents did not report engaging substantially with the IL Framework. However, numerous respondents are teaching in timely conceptual areas such as scholarly communication. This discrepancy illustrates that while librarians are making conceptual advances within their IL instruction, the IL Framework alone cannot be assumed to be catalyzing or motivating such advances. This result is consistent with the results of a recent survey of academic librarians in the United States ([Julien, Gross, and Latham 2018](#)) and with another survey of health science librarians in the United States ([Schulte and Knapp 2017](#)).

Conclusions

Longitudinal work is rare in LIS, so this ongoing series of studies offers a rare glimpse into evolving professional practices. The research offers a glimpse of instructional librarians’ navigation of their professional obligations in relation to institutional constraints. Most important, the value of this research, in addition to documenting professional practices over time, lies in the opportunities it uncovers. Library administrators can use these data on current professional practice to identify ways to ameliorate the barriers and challenges identified, through staff training, resource allocation, and advocacy on and off campus. Instructional librarians themselves can place their own professional challenges in context, by comparing their personal experiences with those of their peers and finding starting points for mutual support and collective action. Librarians and researchers committed to breaking new ground in IL work, such as those developing critical library pedagogies, can gain from these data a sense of what will be necessary, and who will need

to be included, in order to change practices on a wide scale. Students of librarianship can also use the data to inform their preparation for professional work.

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Appendix 1: Survey instrument

Survey of Information Literacy Instruction Practices in Canadian Academic Libraries

Welcome page (includes consent-related information)

Welcome,

Are you an academic librarian with instructional responsibilities? You are invited to participate in an online survey aimed at academic librarians, working in Canada, with instructional responsibilities. The purpose of this study is to identify information literacy instruction practices in Canadian academic libraries. The research is being done by Sarah Polkinghorne from the University of Alberta and Dr. Heidi Julien from the University at Buffalo.

The survey should take no more than 20 minutes to complete.

The survey is voluntary. You have the right to not participate in this study, and you have the right not to respond to any particular question items on the survey. If you complete and submit the survey, your consent to participate will be assumed. Once your survey responses are submitted, you will not be able to withdraw from the study. The survey does not collect identifying information, so survey respondents are anonymous. The survey data will be handled in compliance with standard ethical principles. The study has been approved by the University of Alberta Research Ethics Board. The data will be used to write research papers and make conference presentations. You may benefit from your participation in this study because it offers an opportunity to reflect on your instructional practices and to express your opinions about your work. There is no known potential harm associated with participating. If you participate, your survey responses will be stored in a safe place until the study is completed and the results are disseminated, then they will be deleted.

This survey is being administered using SelectSurvey, the survey platform of the University at Buffalo's Graduate School of Education. As such, please be aware that information collected will be transmitted to and stored on servers outside of the University, Alberta and Canada and that the University of Alberta cannot guarantee protection against disclosures as a consequence of foreign laws.

Click NEXT to begin.

If you have any questions about this study, now or in the future, please contact:

Sarah Polkinghorne
University of Alberta Libraries
University of Alberta
sarah.polkinghorne@ualberta.ca, 780-492-5950

The plan for this study has been reviewed for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.

Questions

1. Your library is associated with a:
 - a. College or technical institute
 - b. University
 - c. Other, please specify [qualitative comment box]
2. What is the size of the undergraduate student population at your institution?
 - a. Fewer than 10,000
 - b. 10,000–20,000
 - c. More than 20,000
3. What is your job title? [qualitative comment box]
4. If your library focuses on a particular discipline(s) or subject area(s), please indicate: [qualitative comment box]
5. Does your college or university library offer formal (i.e., scheduled in advance) instructional classes?
 - a. Yes
 - b. No
6. [If No to Q5] Please indicate briefly why you think there is no formal instructional program at your library. [qualitative comment box]
7. Do you have a written statement of the objectives of your instructional program?
 - a. Yes
 - b. No
8. Does your library routinely provide informal instruction (ie., one-to-one, ad hoc instruction) via subject guides (online and/or paper), online tutorials, point-of-use instruction, etc.?
 - a. Yes
 - b. No
9. Who is primarily responsible for instruction in your library? (check all that apply)
 - a. Full-time instruction librarian(s)
 - b. Reference/public service librarians
 - c. Other librarians on staff
 - d. Other staff, please specify [qualitative comment box]
10. Please estimate the proportion of staff time spent on instruction at the *start* of academic terms, for those staff involved in instruction (other than full-time instruction staff).
 - a. 0–25%
 - b. 26–50%
 - c. 51–75%
 - d. More than 75%
11. Please estimate the proportion of staff time spent on instruction during the *remainder* of the academic year, for those staff involved in instruction (other than full-time instruction staff).
 - a. 0–25%

- b. 26–50%
 - c. 51–75%
 - d. More than 75%
12. For which of the following do you commonly provide instruction? (Check all that apply)
- a. Print indexes or abstracts
 - b. Audio-visual materials
 - c. CD-ROM resources
 - d. Government documents
 - e. Library classification system
 - f. Online databases
 - g. Bibliographic management tools
 - h. Scholarly communication (e.g., open access publishing, open education resources)
 - i. Other print reference materials
 - j. catalogue/online public access catalogue
 - k. The Internet/World Wide Web
 - l. Library use in general
 - m. Electronic documents
 - n. Search strategies (e.g., Boolean)
 - o. Citation metrics
 - p. Other, please specify [qualitative comment box]
13. Which of the following methods do you use in your instruction? (check all that apply)
- a. Web tutorials
 - b. Hands-on instruction in computer lab
 - c. Individualized instruction (one-on-one)
 - d. Courseware
 - e. Video recordings (e.g., YouTube videos)
 - f. Self-paced library tours
 - g. Workbook program
 - h. Lectures/demonstrations in subject classes
 - i. Essay assistance (workshops)
 - j. Additions to course notes for distance students
 - k. Group instruction focused on particular courses or subjects (in the library)
 - l. Social media
 - m. Flipped classrooms
 - n. Embedded librarians
 - o. Credit course
 - p. Non-credit course
 - q. Posters
 - r. Group library tours
 - s. Library guides or handbooks, web format
 - t. Library guides or handbooks, paper format

- u. Pathfinders or subject guides (e.g., LibGuides), web format
 - v. Pathfinders or subject guides, paper format
 - w. Other, please specify [qualitative comment box]
14. On what group(s) does your instructional program focus? (Check all that apply)
 - a. First-year students
 - b. Undergraduates in certain subject disciplines
 - c. Teaching staff (faculty)
 - d. Transfer students
 - e. Adult re-entry students
 - f. Postgraduate students
 - g. General community
 - h. Other, please specify [qualitative comment box]
 15. Overall, what proportion of undergraduate students do you estimate that you reach in your instructional program?
 - a. 76–100%
 - b. 50–75%
 - c. Fewer than 50%
 - d. Not able to determine
 - e. Other, please explain [qualitative comment box]
 16. How much has information technology changed the way you *deliver* instruction in the last few years?
 - a. Not at all
 - b. Only slightly
 - c. Quite a bit
 - d. A great deal
 17. If information technology has changed the way you deliver instruction, can you give an example? [qualitative comment box]
 18. How much has information technology affected the *content* of your instruction in the last few years?
 - a. Not at all
 - b. Only slightly
 - c. Quite a bit
 - d. A great deal
 19. If information technology has changed the content of your instruction, can you give an example? [qualitative comment box]
 20. If information technology has changed either the delivery or content of your instruction, do you think that these changes have increased students' *interest or participation* in instruction?
 - a. Yes
 - b. No
 - c. Don't know
 21. Please explain briefly how you think these changes have influenced students' interest or participation. [qualitative comment box]

22. If information technology has changed either the delivery or content of your instruction, do you think that these changes have *improved* instruction?
 - a. Yes
 - b. No
 - c. Don't know
23. If yes, please indicate *how* technology has improved instruction. [qualitative comment box]
24. What are the objectives (explicitly written or not) of your current instruction? Please rank from 1 (most important) to 6 (least important).
 - a. Teach awareness of technological innovations
 - b. Teach students how databases in general are structured
 - c. Teach students how to find information in various sources
 - d. Teach students how to locate material in the library
 - e. Teach students how to critically evaluate the quality and usefulness of information
 - f. Teach students general research strategies
 - g. Teach students how to manage information
 - h. Other, please state (include ranking) [qualitative comment box]
25. Have these priorities changed in the past few years?
 - a. No
 - b. Don't know
 - c. Yes, how? [qualitative comment box]
26. How would you like to see the objectives (written or not) of your instruction *change*? Please rank from 1 (should be most important) to 6 (should be least important).
 - a. Teach awareness of technological innovations
 - b. Teach students how databases in general are structured
 - c. Teach students how to find information in various sources
 - d. Teach students how to locate material in the library
 - e. Teach students how to critically evaluate the quality and usefulness of information
 - f. Teach students general research strategies
 - g. Teach students how to manage information
 - h. Other, please state (include ranking) [qualitative comment box]
27. Which of the following would you include in your definition of "information literacy"? (Check all that apply)
 - a. Recognizing when information is needed
 - b. Understanding how information is generated, organized, stored, and transmitted
 - c. Understanding some ethical, legal, economic, and socio-political information issues
 - d. Understanding that there exists a wide variety of information sources beyond the obvious

- e. Understanding how to locate efficiently and effectively information from many sources
 - f. Understanding how to use efficiently and effectively information from many sources
 - g. Understanding how to critically analyze and evaluate information
 - h. Knowing how to think critically in general
 - i. Other, please specify [qualitative comment box]
28. For questions 28–36 please answer for the following question(s): What should be the degree of responsibility of academic librarians in teaching the following? If the responsibility is shared, please explain who else is responsible. Recognizing when information is needed:
- a. Not responsible
 - b. Partially responsible
 - c. Fully responsible
 - d. Who else should be responsible? [qualitative comment box]
29. Understanding how information is generated, organized, stored, and transmitted:
- a. Not responsible
 - b. Partially responsible
 - c. Fully responsible
 - d. Who else should be responsible? [qualitative comment box]
30. Understanding some ethical, legal, economic, and socio-political information issues:
- a. Not responsible
 - b. Partially responsible
 - c. Fully responsible
 - d. Who else should be responsible? [qualitative comment box]
31. Understanding that there exists a wide variety of information sources beyond the obvious:
- a. Not responsible
 - b. Partially responsible
 - c. Fully responsible
 - d. Who else should be responsible? [qualitative comment box]
32. Understanding how to locate efficiently and effectively information from many sources:
- a. Not responsible
 - b. Partially responsible
 - c. Fully responsible
 - d. Who else should be responsible? [qualitative comment box]
33. Understanding how to use efficiently and effectively information from many sources:
- a. Not responsible
 - b. Partially responsible
 - c. Fully responsible
 - d. Who else should be responsible? [qualitative comment box]

34. Understanding how to critically analyze and evaluate information:
 - a. Not responsible
 - b. Partially responsible
 - c. Fully responsible
 - d. Who else should be responsible? [qualitative comment box]
35. Knowing how to think critically in general:
 - a. Not responsible
 - b. Partially responsible
 - c. Fully responsible
 - d. Who else should be responsible? [qualitative comment box]
36. Other?
 - a. Not responsible
 - b. Partially responsible
 - c. Fully responsible
 - d. Who else should be responsible? [qualitative comment box]
37. To what extent is your instruction informed by the new ACRL Framework for Information Literacy in Higher Education?
 - a. The Framework does not inform my instruction at all
 - b. The Framework has had minor influence on my instruction
 - c. The Framework has had a significant influence on my instruction
 - d. Please comment [qualitative comment box]
38. Do you believe that your library effectively meets its current teaching objectives?
 - a. Yes
 - b. No
 - c. Don't know
39. How do you assess student learning in your instruction program? (Check all that apply)
 - a. We do no assessments
 - b. Through student self-assessment
 - c. By comparing pre- and post-instruction test results
 - d. Through formative assessment during in-class sessions
 - e. Through quizzes/tests
 - f. Through information literacy assignments
 - g. Through questions and activities integrated into course assignments and exams
 - h. Through citation analysis of course assignments
 - i. Faculty feedback
 - j. Other, please specify [qualitative comment box]
40. How do you evaluate the effectiveness of your library's instruction program? (Check all that apply)
 - a. We do no evaluations
 - b. Self-evaluation by individual instructors/librarians
 - c. Informally from feedback received from faculty
 - d. Informally from feedback received from students

- e. By reviewing student learning assessment results
 - f. With feedback questionnaires to faculty
 - g. With feedback questionnaires to students
 - h. Through citation analysis of course assignments
 - i. Other, please specify [qualitative comment box]
41. Is instruction in your library provided with distinct funding in the library budget?
- a. No
 - b. Don't know
 - c. Yes—what proportion of the budget is dedicated to instruction? [qualitative comment box]
42. How much non-financial support (e.g., administrative support, recognition, encouragement) does your library administration provide for instructional activities?
- a. Full support
 - b. Moderate support
 - c. Very little support
 - d. No support
43. How do you publicize instructional programs in your library (Check all that apply)
- a. Personal faculty contact
 - b. Notices or letters to faculty
 - c. Notices in campus newspaper
 - d. Notices on web
 - e. Posters
 - f. Email discussion lists
 - g. Departmental meetings
 - h. Social media
 - i. We do not purposefully promote instruction in our library
 - j. Other, please specify [qualitative comment box]
44. What are some of the challenges you face as you try to provide instruction? [qualitative comment box]
45. Do you have any other comments about instruction at your campus? [qualitative comment box]

This concludes the survey. Thank you for your participation.