At the Threshold: Information Literacy, the University Graduate, and Librarian-Faculty Collaboration

Janet Goosney, Queen Elizabeth II Library, Memorial University of Newfoundland
Wendy Rodgers, Queen Elizabeth II Library, Memorial University of Newfoundland

Abstract

Conference participants were invited to explore Information Literacy (IL) as an essential attribute of the university graduate. As a report of the experience, this paper begins with a brief review of recent literature, and then describes the conference session in five sections. In the first section, we define IL, and ask the following: "What skills and abilities characterize the information literate graduate, and how do you help your students acquire them?" In the second section, we define Threshold Concepts (TCs), and then introduce the TCs from the *Association of College & Research Libraries (ACRL) Framework for Information Literacy for Higher Education* in the third section. The fourth section synthesizes definitions from the first three sections and describes scenarios students might encounter after graduation. Participants were invited to consider the scenarios in light of IL and the six ACRL Threshold Concepts. In the final section, participants were asked: "Which of the ACRL Threshold Concepts resonate most with you in your instructional practice, and why?" The paper concludes with some observations on the effectiveness of such a session for communicating with faculty about the new ACRL Framework.

Key words: Information literacy, Threshold concepts; Framework for information literacy for higher education; Librarian-faculty collaboration

Introduction

At the Atlantic Association of Universities Teaching Showcase in October 2015, the authors, both librarians, met with a group of ten participants to explore Information Literacy (IL) as an essential attribute of the university graduate. IL is a set of abilities that encompass academic, professional, and personal information use; it is a mode of understanding that is not acquired as a result of a single class, course, or educator. Rather it should be recognized as an on-going learning arc that spans a student's academic experience, consciously supported by both professors and librarians. This session sought to explore this joint role, to develop a shared understanding and vocabulary, and to examine IL as an essential attribute of the university graduate.

The goals were to promote a greater understanding of IL, and the Threshold Concepts (TCs) that lead a student to become information literate; to examine IL as an attribute of the university graduate, and as a tool for lifelong learning; and to explore how faculty can foster IL among students, through their teaching practice and through partnerships with librarians. We addressed these goals through small and large group discussions and problem-based activities.

Background

To date, very little has been published on the topic of communicating with faculty about the *ACRL Framework for Information Literacy for Higher Education*; however, this is not entirely surprising given that the Framework was finalized in February 2015.

The importance of librarian and faculty communication is acknowledged and discussed to some degree in Appendix 1 of the Framework, which briefly explains that "the Framework encourages thinking about how librarians, faculty, and others can address core or portal concepts and associated elements in the information field within the context of higher education," and is intended to help librarians to "contextualize and integrate information literacy for their institutions" (Association of College & Research Libraries, 2015, p. 10). Appendix 1 also offers a brief introduction and guide for faculty on how to use the Framework, for example advising them to "consider the knowledge practices and dispositions in each information literacy frame for possible integration into your own courses and academic program" (p. 13). Librarians are also encouraged to collaborate with faculty as well as other potential campus partners to re-envision holistic programs of IL. However, the Framework does not provide substantial advice about how to forge such partnerships, or advise librarians on how to communicate with academic colleagues about the significance of the Framework to their teaching or to the students in their disciplines.

Trudi Jacobson and Craig Gibson, co-chairs of the task force that developed and implemented the Framework, provide suggestions for communication and collaboration in their article "First Thoughts on Implementing the Framework for Information Literacy" (2015). They argue that while a "spectrum of possibilities" exists for implementing the Framework, "deeper engagement" can only be achieved through librarian and faculty collaboration (p. 103). They add that "without the participation of disciplinary faculty members in sustaining the information literacy education process, librarians efforts will have limited results", and suggest that the Framework "may serve as a stimulus for conversations between librarians and faculty" (p. 106). Jacobson and Gibson go on to make a number of suggestions to help create these connections, including building on pre-existing collaborative relationships; developing model assignments to be shared with faculty; seeking out opportunities to participate in course redesign; and collaborating with faculty on student assessment (pp. 104-105). They observe that when communicating with faculty, adherence to the pedagogical language of the Framework is less important than promoting its core principles (p. 105). Finally, they offer two models for collaborative integration of the Framework, one for a single library session and the other in the context of a semester-long course of IL instruction (pp. 106-110).

Nicole Pagowsky, in her article "A Pedagogy of Inquiry" (2015), perhaps has the most to say about the challenges inherent in presenting the new Framework to professors, administrators, and others at our institutions. She explains that for some, a new IL pedagogy based on critical concepts, questions, and "big ideas" may be perceived as a disadvantageous movement away from a skills-based approached to IL, explaining that a movement toward "vocationalism," which is "being increasingly pursued throughout higher education," may contribute to the belief that skills-based IL training would better equip graduates for employment in the global economy (p. 139). Pagowsky refutes this notion, however, arguing that the "urgency for employable skills" is often race and class based, focusing on students from racial minority or economically disadvantaged backgrounds. She quotes Gerrard, who argues that "lower status, vocationally oriented, education" denies learners exposure to "the 'system of meaning' within which this knowledge is embedded" (p. 139; Gerrard, 2015, p. 78). Pagowsky goes on to argue that "teaching skills and teaching big ideas do not have to be mutually exclusive", pointing out that "students

must grasp the bigger concepts to effectively apply lower-level and more granular skills, and to...become aware of what they do not know" (p. 141).

Finally, Pagowsky also argues that the roles and activities of librarian educators are often not well understood, and that IL instruction is frequently perceived as a "simplistic transmission" of lower-order skills (2015, p. 140). She points out that such assumptions on the part of faculty can limit IL pedagogies, and argues that in order to forge new and empowering partnerships, we must "demonstrate how complex our pedagogy truly is rather than being passive, perceived as teaching by transmission" (pp. 141-2). Pagowsky identifies the Framework as a source of new opportunities, as we "use what we create from the Framework on our campuses to engage in new conversations, imagining what could be, and putting this pedagogy into action" (p. 142). In this article, however, she does not explore specifics about how or when these conversations might occur.

Defining Information Literacy

Given the diversity of perspectives offered by our audience, the workshop began with an attempt to develop a shared understanding of IL. The conversation started with discussion of how and when the phrase has been heard by participants and used at their institutions. A general sense emerged that the phrase "information literacy" is beginning to enter into institution-wide usage, and that participants have come across it at their institutions, hearing about it from librarians and also (though perhaps to a lesser extent) from other sectors at their universities.

We also explored what the phrase meant individually to participants in the context of their own teaching and the learning and growth of their students by posing the following question for small-group discussion:

> *What skills and abilities characterize the information literate graduate, and how do you help your students acquire them?*

The concepts discussed were notably consistent, despite the diversity of the small groups both in terms of subject discipline and experience. For example, participants focused on the ability to find materials to meet a particular research or information need, and also placed particular emphasis on planning and thinking critically about information: knowing not only what is needed, but also what kind of information will appropriately address that need. The ability to ask meaningful questions was also explored as a characteristic of the information literate graduate, as was the ability to engage in appropriate help-seeking behaviors, such as working with a librarian when needed.

Building on this initial discussion, we then examined the definition of IL offered by the ACRL:

> Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning. (Association of College & Research Libraries, 2015, p. 3)

This new definition, which emerged from the recently developed *Framework for Information Literacy for Higher Education*, touches on four critical aspects that are central to IL:

- Research as a reflective process of discovery
- Using information to create new knowledge

- Scholarship as a form of community participation
- Information as a product with ethical implications and aspects of value

It is notable that these aspects are "critical" in two senses of the word. They are "critical" in that they involve reasoned analysis, taking students beyond basic, skill-based knowledge toward a conceptual structure in which those skills can be understood and applied. They are also "critical" in the sense of being essential, in that they are fundamental characteristics that define IL; for example, one cannot be said to be "information literate" if one does not recognize research as a process of discovery.

Defining Threshold Concepts

The "critical aspects" outlined above lead us to the idea of "Threshold Concepts", a learning theory developed by Jan Meyer and Ray Land in 2003. The Framework offers the following definition, based on the work of Meyer, Land, and Baillie (2010):

> Threshold Concepts are core or foundational concepts that, once grasped by the learner, create new perspectives and ways of understanding a discipline or challenging knowledge domain. Such concepts produce transformation within the learner; without them, the learner does not acquire expertise in that field of knowledge. Threshold concepts can be thought of as portals through which the learner must pass to develop new perspectives and wider understanding. (Association of College & Research Libraries, 2015, p. 3)

Building on this broad definition, a number of characteristics have been defined which are said to further define TCs. For example, TCs are:

- **transformative**, meaning that once they are understood, they should change the way a learner thinks about or perceives the subject
- **troublesome**, being "existentially unfamiliar" (Schwartzman, 2010, p. 42) to the learner yet impossible to ignore, avoid, or absorb into existing knowledge; they challenge at the level of awareness and belief
- **irreversible**, so that, once learned, they are very difficult to unlearn or to forget; more than just a memorized fact, they tend form habits or beliefs
- **integrative**, allowing the learner to make connections that were "hidden" from them before, and to recognize the interrelatedness of different concepts or ideas (Meyer, Land & Baillie, 2010, p. ix-x; Schwartzman, 2010, p. 42)
- **bounded**, in that they are both significant and yet limited enough to help define the boundaries of a subject area (Meyer & Land, 2003, p. 416)

It is important to note that TCs are in no way specific to IL; they can be applied to any discipline, and are likely to be vastly different if you compare, for example, the TCs for biochemistry to those for business administration. The ACRL has very recently identified six TCs for IL, outlined in the *ACRL Framework for Information Literacy for Higher Education*.

Threshold Concepts in the ACRL Framework

Authority is Constructed and Contextual

The first TC is "Authority Is Constructed and Contextual." To summarize the definition given in the framework, authority is constructed because different communities recognize different types of authority, and contextual because need determines the type and level of authority required. Experts

recognize that authority may privilege some voices over others and view it with informed skepticism but also openness.

The Framework states that once students have grasped this TC they are able to, for example:
- "define different types of authority, such as subject expertise...societal position, or special experience"
- "motivate themselves to find authoritative sources, recognizing that authority may be conferred or manifested in unexpected ways"
- "question traditional notions of granting authority and recognize the value of diverse ideas and worldviews"
- "[assess] content with a skeptical stance and...self-awareness of their own biases and worldview"[1] (Association of College & Research Libraries, 2015, p. 4)

> **To illustrate:** If one receives a cancer diagnosis, and the doctor says, "there are two courses of treatment we can follow," the patient is going to take a much different approach to investigating those two courses of treatment than if he or she were seeking to switch to a new brand of shampoo. While both are consumer questions, the need, stakes, and type and level of authority required are vastly different. Note, however, that there are authoritative information sources to aid consumer health decision-making, such as *Medline Plus*, and also to aid consumer purchasing decisions, such as *Consumer Reports*. Even for the shampoo question, there are sources such as the book *Don't go shopping for hair care products without me* by Paula Begoun.

Information Creation as a Process

The second TC is "Information Creation as a Process." Information, regardless of format, is produced to convey a message. However, the processes of creation and dissemination vary depending on the product. Experts consider more than just format; they are aware of how content is created, while still recognizing that different formats may meet different needs or be valued differently, depending on the context.

For example, according to the Framework, students who understand this TC are able to:
- "seek out characteristics of information products that indicate the underlying creation process"
- "recognize that information may be perceived differently based on the format in which it is packaged"
- "resist the tendency to equate format with the underlying creation process"
- "accept the ambiguity surrounding the potential value of information creation expressed in emerging formats or modes" (Association of College & Research Libraries, 2015, p. 5)

The usefulness of information in various formats—including books, newspapers, journal articles, tweets, online videos, blogs, etc.—often depends on who is creating it, why they are sharing it, and the process it went through prior to publication.

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[1] For each of the TCs, we have provided just four examples of characteristics identified in the ACRL Framework. The Framework defines these characteristics as "knowledge practices" and "dispositions". A more detailed list can be found with each TC in the Framework; however it is pointed out that these lists are not intended to be prescriptive or exhaustive in nature (p. 2).

> **To illustrate:** A student approached our Information and Research Help Desk recently and said that she was doing a research paper. She had found a journal article that looked perfect for her topic, but it was only available online; did the library have a paper copy? When asked why she wanted a paper copy, the student said that her professor had told the class that they were not permitted to use web sources. The librarian reviewed the wording on the assignment handout with the student and explained that the professor did not intend to prevent her use of a peer-reviewed journal article; rather, the professor was referring to personal or commercial web pages, not scholarly or academic journals that are published online.

Information has Value

The third TC is "Information Has Value." Information has several dimensions of value: the power to educate, influence, define, or regulate. It is also a commodity with financial worth. Legal, economic, social, and ethical interests all influence how information is used and disseminated. Experts carefully consider these influences and whether to comply with or question accepted beliefs and practices.

For example, the Framework states that students who recognize that information has value:
- "give credit to the original ideas of others through proper attribution and citation"
- "understand that intellectual property is a legal and social construct that varies by culture"
- "see themselves as contributors to the information marketplace rather than only [as] consumers"
- "are inclined to examine their own information privilege" (Association of College & Research Libraries, 2015, p. 6)

> **To illustrate:** A recent graduate has been lucky enough to land a job in his field, and wants to access the literature he used while he was a student to help make an on-the-job decision. He tries to log on to the library website, but his password no longer works. He calls the library and learns that access to subscription databases, e-journals, and e-books is restricted to current students, faculty, and staff of the university. However, the librarian recommends a scholarly database that is available for free and suggests a number of open access journals that do not require a subscription. The graduate finds some useful materials but realizes for the first time that the wealth of information he used as a student was neither free nor freely available and recognizes the privileged position he held as a university student.

Research as Inquiry

"Research as Inquiry" is the fourth TC. Research is an iterative and collaborative process that gradually leads to new and increasingly complex questions and ideas. Academics engage in inquiry to explore different viewpoints and expand the knowledge of their disciplines. Beyond scholarship, the process of inquiry addresses individual, professional, and community needs.

According to the Framework, this TC allows students to, for example:
- "consider research as an open-ended form of engagement with information"
- "seek multiple perspectives during information gathering and assessment"
- "use various research methods, based on need, circumstance, and type of inquiry"
- "value persistence, adaptability, and flexibility and recognize that ambiguity can benefit the research process" (Association of College & Research Libraries, 2015, p. 7)

> **To illustrate:** Librarian Lane Wilkinson offers an interesting interpretation of this TC in a 2014 blog post. In an attempt to convince students to move beyond Google when their question warrants, he introduces them to the distinction between search and research: "when you know the answer, or know that an answer exists, you search. When you don't know the answer, or aren't even sure about the question, you research." Further, he notes that research requires a "willingness to accept that what you discover may not fit in neatly with what you believe." He concludes with a pithy statement: "Search is seeking the answer; research is seeking the question".

Scholarship as Conversation

In the fifth TC, "Scholarship as Conversation," scholarship is an ongoing discourse between academics, professionals, or other researchers in which ideas are created, debated and shared between members of a community. Acts such as publication, citation, and peer review are all ways of participating in the scholarly conversation. Established structures and notions of authority may privilege some voices over others.

With an understanding of this TC, students can:
- "contribute to scholarly conversation at an appropriate level, such as local online community, guided discussion, undergraduate research journal, conference presentation/poster session"
- "recognize they are often entering into an ongoing scholarly conversation and not a finished conversation"
- "cite the contributing work of others in their own information production"
- "see themselves as contributors to scholarship rather than only [as] consumers" (Association of College & Research Libraries, 2015, p.8)

> **To illustrate:** One could argue that the roots of this concept extend all the way back to the Socratic method. Faculty members certainly do not need examples to help them contextualize scholarship as conversation. It is, however, a valuable concept for engaging and empowering students. How much richer their connection to the academy if they see their course assignments as part of a larger global discussion. The term paper is not only an act required to complete a course, but its component parts - research, writing, citation - are also opportunities for the student to participate in the scholarly conversation. In some courses, students conduct peer reviews of one another's drafts; this type of assignment can give them a meaningful perspective on the communal aspects of scholarship.

Searching as Strategic Exploration

"Searching as Strategic Exploration" is the sixth and final TC. Search is an iterative, nonlinear process that requires the searcher to seek out, review and evaluate a variety of information sources. New discoveries may guide or change the search process. Search requires both technical skill and serendipity; the extent of exploration depends on both the needs and capabilities of the researcher.

This TC enables students to:
- "determine the initial scope of the task required to meet their information needs"
- "manage searching processes and results effectively"
- "design and refine needs and search strategies as necessary, based on search results"
- "recognize the value of browsing and other serendipitous methods of information gathering" (Association of College & Research Libraries, 2015, p.9)

> **To illustrate:** Many reference librarians have had the following experience. A student approaches to say that she has found a great article that covers everything she was seeking about her topic. Can she use the items in the article's bibliography, or would that be cheating? On the contrary, it is an example of strategic exploration, and an important method of gathering information when used in concert with other approaches.

Information Literacy, Threshold Concepts, and the University Graduate

When thinking about IL as a core attribute of the graduating student, it is useful to look at scenarios in which graduates could eventually find themselves, and consider how the TCs might guide them. To that end, we developed several brief scenarios for attendees to consider. We discussed the first scenario as a large group.

> **Scenario One:** Lana studied English literature at Memorial. She recently graduated and is now pregnant with her first child. A friend told her that she shouldn't get her baby vaccinated because it causes autism, but her husband says this is not true.

Participants identified authority as the most significant aspect of this scenario: whose authority? The husband, the friend, or those to whom they listen: the World Health Organization or Jenny McCarthy? In our section about the first TC, we note that "authority may be conferred or manifested in unexpected ways" such as, in this case, through stardom. The third TC, "Information has value" will certainly guide Lana, as the health of her child is at stake. She will use the sixth TC, "Searching as strategic exploration," to navigate between her friend and husband to arrive at a satisfying answer. One participant noted that Lana will encounter "Scholarship as conversation" along the way (perhaps better thought of here as "research as a conversation"), and will be entering a conversation fraught with emotion and misinformation.

After some group discussion, we split into pairs. Each pair considered one or two of the following scenarios, determined which TCs the student would need to use to navigate the information challenge they faced, and reported back to the group.

> **Scenario Two:** Aamir has an Engineering degree from Memorial. He and his friends have just moved out of their apartment, and the landlord has refused to return their damage deposit, even though they have not damaged the apartment.
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> **Scenario Three:** Coady was the first person in his extended family to go to university, where he earned a degree in Chemistry. His uncle was recently injured on the job and is now disabled. Coady's aunt has asked the recent graduate to find out what services and supports his uncle can access.
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> **Scenario Four:** Ling studied Mathematics at Memorial. One of her friends posted a link on Facebook to a website that said that her favorite brand of soy sauce contains high levels of a chemical that causes cancer. Another friend posted a link contradicting the claim.
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> **Scenario Five**: Yasmeen is a recent Business graduate in her first job as the assistant manager of a travel agency. Her employer has asked her to find out how many Newfoundlanders visit Florida every year.
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> **Scenario Six**: Felix graduated with a degree in History. He is a member of a local history society, and has been asked to give a presentation at an upcoming meeting. To make his slideshow more lively, he wants to include music and images that he found on the Internet.

Conclusion

Two important goals of this session were to work with attendees to develop a shared understanding of IL, and to explore with them the value of the TCs defined in the ACRL Framework. Our small group was almost entirely comprised of professors and course instructors who were very receptive to the ideas of IL and TCs, as well as the particular TCs proposed in the framework. Although the ACRL Threshold Concepts have been a topic of debate within the IL community, no real controversy or dissent arose during this session; despite the diversity of the group in terms of subject expertise, we discovered that there was much in common among us.

To wrap up the session, we posed one final question to the group, in an attempt to learn more about how the concepts we had introduced connect with their own practice:

> *Which of the ACRL Threshold Concepts resonate most with you in your instructional practice, and why?*

Participants responded that "research as inquiry" resonated strongly with them, and was a concept that they had explored with their own students. They also discussed the significance of "information has value" and "authority is constructed and contextual". One participant pointed out that this latter TC is also closely connected to the idea of "scholarship as a conversation", noting that when engaged in the conversation, it is important for students to adopt an attitude of informed skepticism, and also to recognize that some voices may be privileged over others. It was also observed that these concepts extend beyond the academic world and that graduates should be aware of and engage with "expert" voices in their professional and personal contexts as well. The real-life scenarios allowed participants to consider IL beyond the strictly pedagogical environment of the academy and situated the ACRL Threshold Concepts in the context of lifelong learning.

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Author Biographies

Janet Goosney has been a librarian since 1998, and the information literacy coordinator at Memorial's QEII Library since 2003. In July of 2015, Janet was appointed as one of thirteen chairs in teaching and learning at Memorial University. Before coming to Memorial, she was a health sciences librarian at Queen's University. jgoosney@mun.ca

Wendy Rodgers has been a Humanities Research Liaison Librarian at Memorial University of Newfoundland for 10 years. Previously, she was a Liaison Librarian and Web Content Coordinator at the University of Guelph Library for 6 years. She began her career at the Newfoundland and Labrador Centre for Health Information. wrodgers@mun.ca