November 12, 2014

Welcome

Thank you for taking the time to read and respond to this newly revised draft *Framework for Information Literacy for Higher Education*. The *Information Literacy Competency Standards for Higher Education*, adopted by the Association of College and Research Libraries (ACRL) in 2000, have become an essential document related to the emergence of information literacy as a recognized learning outcome at many institutions of higher education. These, like all ACRL standards, are reviewed cyclically. In June 2012, the ACRL Board approved a unanimous recommendation that they be a significantly revised.

We co-chair a task force charged with creating the *Framework* and have been working since March 2013. The group reflects some of the best minds in the library profession currently working in the area of information literacy. It also includes experts from other parts of higher education and an accrediting agency. Find out more about the task force members, our charge, our process, and interim reports to the ACRL Board at http://acrl.ala.org/ilstandards/.

The Task Force shared its work publicly through drafts released on February 20, April 4, and June 17, 2014. As mentioned in a recent FAQ entry, the feedback that we have received throughout the process has been extensive and helpful. We very much appreciate the time that you have taken to read, reflect on, discuss, and respond to these earlier drafts. We encourage you to read the FAQ document, as a number of items have been added to it recently that complement this welcome message.

Members of the Task Force have spent a great deal of time analyzing all the feedback that has been received, including comments from the web form, and those found in blog posts and tweets. Informed by your feedback, we have made a number of changes that you will see reflected in this newly revised draft. Please understand that while we read all of the feedback, it was not possible to use everything suggested. In a number of cases, suggestions on particular components of the Framework were diametrically opposed, and the members of the Task Force used their best judgment to make decisions.

In this draft, you will find one new appendix:

- Background of the *Framework* Development

There are also revisions:

- The definition of information literacy has been revised. It is now composed of a short definition followed by four amplifying bullet points, and ties more directly to the *Framework*;
- The Frames are presented alphabetically;
- The brief and longer descriptions of the Frames have been revised;
- Two of the Frames have been renamed. Format as a Process is now Information Creation as a Process, and Searching as Exploration has reverted to Searching is Strategic, an earlier title;
- The Knowledge Practices (Abilities) heading has been simplified to Knowledge Practices;
- The Knowledge Practices and Dispositions sections have been carefully reviewed and revised;
- An expanded Sources for Further Reading section is included;
- Appendix 1 from the previous draft, "Setting the Context," has been removed;
- A draft of the actions we will recommend the ACRL Board take has been updated and is included as an ancillary document so that you can see our thinking and provide your reactions.

Feedback on this new version of the draft *Framework* will be **accepted through 5pm Central on Friday, December 12, 2014**, via the form at https://www.surveymonkey.com/s/CLM6ST2.

We will review the *Framework* as needed based on this last round of feedback gathered through responses sent via the new online survey. We expect to submit a final document to the ACRL Board in early January 2015 for their consideration and approval at ALA Midwinter at the end of January. Before a final document is ready to submit to the ACRL Board for consideration, two other ACRL groups are charged to review and provide feedback on near final drafts; these groups are the ACRL Information Literacy Standards Committee and the ACRL Standards Committee. Of course, this timeline may change, based on the feedback we receive, but this is our current intention.

We encourage you to gather a group on your campus to discuss this revised draft Framework and report back to us about your group's impressions. We suggest you invite colleagues from your library, as well as other campus stakeholders who have an interest, such as academic support services staff, members of the general education curriculum committee, and disciplinary faculty partners. To help guide your thinking, we ask that you provide feedback to these questions:

1. How satisfied are you with the new definition of information literacy?
2. How satisfied are you with each of the six frames?
3. How satisfied are you with the opportunities to provide feedback to the task force on drafts of the *Framework*?
4. How satisfied are you that the task force has been responsive to feedback provided on previous drafts of the *Framework*?
5. OVERALL, how satisfied are you with the third draft of the proposed *Framework for Information Literacy for Higher Education*?

6. What one thing do you most want the Task Force members to know about the draft *Framework*?

Again, please provide your feedback **by 5pm Central on Friday, December 12, 2014**, via the form at https://www.surveymonkey.com/s/CLM6ST2. We ask that you send us your reactions via that form so it is easier to compile all the comments we expect to receive on and ensure we don't overlook any. We are also happy to connect with you on a personal level, and you should feel free to be in touch with either of us by email to discuss your reactions to this draft. We will focus our review of the feedback during this round on that received via the online form, so we encourage those who are commenting via blogs, Tweets, or other forms of social media to fill out the feedback form to make sure your thoughts are heard.

Thank you again for your interest in this revised draft of the *Framework for Information Literacy for Higher Education*. We are eager to receive your feedback.

Craig Gibson, Head, Food, Agricultural, and Environmental Sciences Library, Ohio State University Libraries, gibson.721@osu.edu

- and -

Trudi E. Jacobson, Head, Information Literacy Department, University at Albany, SUNY, University Libraries, tjacobson@albany.edu

Framework for Information Literacy for Higher Education

Introduction

This *Framework for Information Literacy for Higher Education* grows out of a belief that information literacy as an educational reform movement will realize its potential only through a richer, more complex set of core ideas. During the fifteen years since the publication of the *Information Literacy Competency Standards for Higher Education*, academic librarians and their partners in higher education associations have developed learning outcomes, tools, and resources that some institutions have deployed to infuse information literacy concepts and skills into their curricula. However, the rapidly changing higher education environment along with the dynamic and often uncertain information ecosystem in which all of us work and live require new attention be focused on foundational ideas about that ecosystem. Students have a greater role and responsibility in creating new knowledge, in understanding the contours and the changing dynamics of the world of information, and in using information, data, and scholarship ethically. Teaching faculty have a greater responsibility in designing curricula and assignments that foster enhanced engagement with the core ideas about information and scholarship within their disciplines. Librarians have a greater responsibility in identifying core ideas within their own knowledge domain that can extend learning for students, in creating a new cohesive curriculum for information literacy, and in collaborating more extensively with faculty.

The *Framework* offered here is called a framework intentionally, because it is based on a cluster of interconnected core concepts, with flexible options for implementation, rather than on a set of standards or learning outcomes or any prescriptive enumeration of skills. At the heart of this *Framework* are conceptual understandings identified by the Task Force that organize many other concepts and ideas about information, research, and scholarship into a coherent whole. These conceptual understandings are informed by the work of Wiggins and McTighe,[1] which focuses on essential concepts and questions in developing curricula, and on *threshold concepts*,[2] which are those ideas in any discipline that are passageways or portals to enlarged understanding or ways of thinking and practicing within that discipline. The ACRL Task Force responsible for this *Framework* has drawn upon an ongoing Delphi Study that has identified several threshold concepts in information literacy,[3] but the Task Force has molded the *Framework* using its own ideas and emphases for the threshold concepts. The Task Force has also added two elements that illustrate important learning goals related to those concepts: *knowledge practices*,[4] which are demonstrations of ways in which learners can increase their understanding of these information literacy concepts, and *dispositions*,[5] which describe ways in which to address the affective, attitudinal, or valuing dimension of learning. The *Framework* is organized into six Frames, each consisting of a concept central to information literacy, a

set of knowledge practices, and a set of dispositions. These are the six threshold concepts that anchor the Frames, presented alphabetically:

- Authority Is Constructed and Contextual
- Information Creation as a Process
- Information Has Value
- Research as Inquiry
- Scholarship Is a Conversation
- Searching Is Strategic

Neither the knowledge practices nor the dispositions that support each threshold concept are intended to prescribe what local institutions should do in using the *Framework*; each library and its partners on campus will need to deploy these to best fit their own situation and to design learning outcomes based on the knowledge practices and dispositions for local purposes. For the same reason, these lists should also not be considered exhaustive.

In addition, this *Framework* draws significantly upon the concept of metaliteracy,[6] which offers a renewed vision of information literacy as an overarching set of abilities in which students are both consumers and creators of information who can participate successfully in collaborative spaces.[7] Metaliteracy demands behavioral, affective, cognitive, and metacognitive engagement with the information ecosystem. This *Framework* depends on these core ideas of metaliteracy, with special focus on metacognition,[8] or critical self-reflection, as crucial to becoming more self-directed in that rapidly changing ecosystem.

Because this *Framework* envisions information literacy as extending the arc of learning throughout students' academic careers and as converging with other academic and social learning goals, an expanded definition of information literacy is offered here to emphasize dynamism, flexibility, individual growth, and community learning:

> Information literacy is a **spectrum of abilities, practices, and habits of mind** that extends and deepens learning through engagement with the information ecosystem. It includes
>
> - **understanding essential concepts** about that ecosystem;
> - **engaging in creative inquiry and critical reflection** to develop questions and to find, evaluate, and manage information through an iterative process;
> - **creating new knowledge** through ethical participation in communities of learning, scholarship, and civic purpose; and
> - **adopting a strategic view of the interests, biases, and assumptions** present in the information ecosystem.

The *Framework* opens the way for librarians, faculty, and other institutional partners to redesign instruction sessions, assignments, courses, and even curricula; to connect information with student success initiatives; to collaborate on pedagogical research and involve students themselves in that research; and to create wider conversations about student learning, the scholarship of teaching and learning, and the assessment of learning on local campuses and beyond.

Suggestions on How to Use the Information Literacy Framework

The *Framework for Information Literacy for Higher Education* is a mechanism for guiding the development of information literacy programs within higher education institutions while also promoting discussion about the nature of key concepts in information in general education and disciplinary studies. The *Framework* encourages thinking about how librarians, faculty, and others can address threshold concepts and associated elements in the information field within the context of higher education. This *Framework* will help librarians contextualize and integrate information literacy for their institutions and will encourage a deeper understanding of what knowledge practices and dispositions an information-literate student should develop. The *Framework* redefines the boundaries of what librarians teach and how they conceptualize the study of information within the curricula of higher education institutions.

The *Framework* has been conceived as a set of living documents on which the profession will build. The key product is a set of Frames, or lenses, through which to view information literacy, each of which includes a threshold concept, knowledge practices, and dispositions. The members of the Task Force that developed these Frames encourage the library community to discuss the new *Framework* widely and to develop resources such as curriculum guides, concept maps, and assessment instruments to supplement the core set of materials in the Frames.

As a first step, the Task Force encourages librarians to read through the entire *Framework* and discuss the implications of this new approach for the information literacy program at your institution. You may convene a discussion among librarians at your institution or join an online discussion of librarians. In addition, as you familiarize yourself with the Frames, you may want to discuss them with professionals in your institutional center for teaching and learning, office of undergraduate education, or similar departments to see whether some synergies exist between this approach and curricular initiatives at your institution.

The Frames can guide the redesign of information literacy programs for general education courses, for upper level courses in students' major departments, and for graduate student education. The Frames are intended to demonstrate the contrast in thinking between *novice learner* and *expert* in a specific area; movement may take place over the course of a student's academic career. Mapping out in what way specific concepts will be integrated into specific levels of the curriculum is one of the challenges of implementing the *Framework*. The Task Force encourages librarians to work with faculty, departmental or college curriculum committees, instructional designers, staff from centers for teaching and learning, and others to design information literacy programs in a holistic way.

The members of the Task Force realize that many information literacy librarians currently meet with students via one-shot classes, especially in introductory level classes. Over the course of a student's academic program, one-shot sessions that address a particular need at a particular time, systematically integrated into the curriculum, can play a significant role in an information literacy program. It is important for librarians and teaching faculty

to understand that the *Framework* is not designed to be implemented in a single information literacy session in a student's academic career; it is intended to be developmentally and systematically integrated into the student's academic program at a variety of levels. This may take considerable time to implement fully in many institutions.

The Task Force encourages information literacy librarians to be imaginative and innovative in implementing the *Framework* in their institution. The *Framework* is not intended to be prescriptive but to be used as a guidance document in shaping an institutional program. The Task Force recommends that you pilot the implementation of the *Framework* in a context that is useful to your institution, assess the results, and share your experiences with your colleagues in the field.

How to Use This *Framework*

- **Read and reflect on the entire *Framework* document.**
- **Convene or join a group of librarians to discuss the implications of this new approach to information literacy for your institution.**
- **Reach out to potential partners in your institution, such as departmental curriculum committees, centers for teaching and learning, or offices of undergraduate or graduate studies, to discuss how to implement the *Framework* in your institutional context.**
- **Using the *Framework*, pilot the development of information literacy sessions within a particular academic program in your institution; assess and share the results with your colleagues.**
- **Add to the online repository (sandbox) that will be developed to share a wide range of instructional materials with other information literacy librarians.**

Frames

These six frames are presented alphabetically and do not suggest a particular sequence in which they must be taught.

Authority Is Constructed and Contextual

Authority Is Constructed and Contextual refers to the recognition that information resources are drawn from their creators' expertise and credibility based on the information need and the context in which the information will be used. Experts view authority with an attitude of informed skepticism and an openness to new perspectives, additional voices, and changes in schools of thought.

Experts understand that authority is a type of influence recognized or exerted within a community. Authority is constructed and contextual. It is constructed in that various communities may recognize different types of authority. It is contextual in that the information need may help to determine the level of authority required. Experts understand the need to determine the validity of the information created by different authorities and to acknowledge biases that privilege some sources of authority over others, especially in terms of others' worldviews, gender, sexual orientation, and cultural orientations. An understanding of this concept enables novice learners to critically examine all evidence—be it a *Wikipedia* article or a peer-reviewed conference proceeding—and ask relevant questions about origins, context, and suitability for the current information need. Thus, novice learners come to respect the expertise that authority represents while remaining skeptical of both the systems which have elevated that authority and the information created by it. Experts know how to seek authoritative voices but also recognize that unlikely voices can be authoritative, depending on need. Novice learners may need to rely on superficial indicators of authority, such as type of publication or author credentials, where experts recognize schools of thought or discipline-specific paradigms.

Knowledge Practices

Learners who are developing their information-literate abilities

- define different types of authority, such as subject expertise (e.g., scholarship), society position (e.g., public office or title), or special experience (e.g., participating in a historic event);
- use research tools and markers of authority to determine the credibility of sources, understanding the elements that might temper this credibility;
- understand that many disciplines have acknowledged authorities in the sense of well-known scholars and publications that are widely considered "standard" and yet, even in those situations, some scholars would challenge the authority of those sources;
- recognize that authoritative content may be packaged formally or informally and may include audio, visual, and other nonprint sources;
- acknowledge that they themselves are developing their own authoritative voices in a particular area and recognize the responsibilities this entails, including seeking accuracy and honesty, respecting intellectual property, and participating

in communities of practice; and

- understand the increasingly social nature of the information ecosystem where authorities actively connect with one another and sources develop over time.

Dispositions

Learners who are developing their information-literate abilities

- develop and maintain an open mind when encountering varied and sometimes conflicting perspectives;
- motivate themselves to find authoritative sources, recognizing that authority may be conferred or manifested in unexpected ways;
- develop awareness of the importance of assessing content with a skeptical stance and with a self-awareness of their own biases and worldview;
- question traditional notions of granting authority and recognize the value of diverse ideas and worldviews; and
- are conscious that maintaining these attitudes and actions requires frequent self-evaluation.

Information Creation as a Process

Information Creation as a Process refers to the understanding that the purpose, message, and delivery of information are intentional acts of creation. Recognizing the nature of information creation, experts look to the underlying processes of creation as well as the final product to critically evaluate the usefulness of the information.

The iterative processes of researching, creating, revising, and then making public an information product vary, and the resulting product reflects these differences. The unique capabilities and constraints of each creation process as well as the specific information need determine how the product is used. Experts recognize that information products are valued differently in different contexts, such as academia or the workplace. Elements that affect or reflect on the creation, such as a pre- or postpublication editing or reviewing process, may be indicators of product quality. The dynamic nature of information creation and dissemination requires ongoing attention to understand evolving creation processes. Novice learners begin to recognize the significance of the creation process, leading them to increasingly sophisticated choices when matching information products with their information needs.

Knowledge Practices

Learners who are developing their information-literate abilities

- effectively articulate the capabilities and constraints of information developed through various creation processes;
- assess the fit between an information product's creation process and a particular information need;
- recognize that information may be perceived differently based on the format in which it is packaged;
- recognize the implications of information formats that contain static or dynamic information;
- monitor the value that is placed upon different types of information products in varying contexts;
- transfer knowledge of capabilities and constraints to new types of information products; and
- develop, in their own creation processes, an understanding that their choices impact the purposes for which the information product will be used and the message it conveys.

Dispositions

Learners who are developing their information-literate abilities

- are inclined to seek out markers for information products that indicate the underlying creation process;
- value the process of matching an information need with an appropriate product;
- accept that the creation of knowledge may begin initially through communicating in a range of formats or modes;
- accept the ambiguity surrounding the potential value of knowledge creation expressed in emerging formats or modes;

- resist the tendency to conflate format with the underlying creation process; and
- value the process of matching an information need with an appropriate product.

Information Has Value

The Information Has Value frame refers to the understanding that information possesses several dimensions of value, including as a commodity, as a means of education, as a means to influence, and as a means of negotiating and understanding the world. The flow of information through systems of production and dissemination is impacted by legal, sociopolitical, and economic interests.

The value of information manifests in a variety of contexts, including varied publishing practices, access to information, the commodification of personal information, and intellectual property laws. The novice learner may struggle to understand the diverse values of information in an environment where "free" information and related services are plentiful and the concept of intellectual property is first encountered through obscure rules of citation or warnings about plagiarism. As creators, users, and consumers of information, experts understand their rights and responsibilities when participating in a community of scholarship. Experts understand that value may be wielded by powerful interests in ways that marginalize certain voices. However, value may also be leveraged by individuals and organizations to effect change and for civic, economic, social, or personal gains. The expert also understands that the individual is responsible for making deliberate and informed choices about when to contest and when to comply with current legal, economic, and social practices concerning the value of information.

Knowledge Practices

Learners who are developing their information-literate abilities

- 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;
- articulate the purpose and distinguishing characteristics of copyright, fair use, open access, and the public domain;
- understand how and why some individuals or groups of individuals may be underrepresented or systematically marginalized within the systems that produce and disseminate information;
- recognize issues of access or lack of access to information sources;
- decide where and how their information is published;
- understand how the commodification of their personal information and online interactions affects both the information they receive and the information they produce or disseminate online; and
- manage their online presences responsibly.

Dispositions

Learners who are developing their information-literate abilities

- respect the original ideas of others;
- value the skills, time, and effort needed to produce knowledge; and
- see themselves as contributors to the information marketplace rather than only consumers of it.

Research as Inquiry

Research as Inquiry refers to an understanding that research is iterative and depends upon asking increasingly complex or new questions whose answers develop additional questions or lines of inquiry in any field.

Experts see inquiry as a process that focuses on problems or questions in a discipline or between disciplines that are open or unresolved. Experts recognize the collaborative effort within a discipline to extend the knowledge in that field. Many times, this process includes points of disagreement where debate and dialogue work to deepen the conversations around knowledge. This process of inquiry extends beyond the academic world to include instances such as evidence and data collected by groups and individuals in communities and the public at large, and the process of inquiry may also focus upon personal, professional, or societal needs. The spectrum of inquiry ranges from asking simple questions that depend upon basic recapitulation of knowledge to increasingly sophisticated abilities to refine research questions, use more advanced research methods, and explore more diverse disciplinary perspectives. Novice learners increasingly gain the ability to move beyond basic research methods and data collection and to acquire the expert's strategic perspective on inquiry.

Knowledge Practices

Learners who are developing their information-literate abilities

- formulate questions for research based on information gaps or reexamination of existing, possibly conflicting, information;
- determine an appropriate scope of investigation;
- deal with complex research by breaking complex questions into simple ones, limiting the scope of investigation, conducting a series of investigations, and performing subsequent steps;
- use a variety of research methods, based on need, circumstance, and type of inquiry;
- employ critical skills to evaluate information;
- effectively resolve conflicting information;
- monitor gathered information and assess for gaps or weaknesses;
- organize information in meaningful ways;
- synthesize ideas gathered from multiple sources;
- draw reasonable conclusions based on the analysis and interpretation of information;
- develop research heuristics;
- develop directions for future investigations;
- use research appropriately to make decisions and take action; and
- manage information effectively.

Dispositions

Learners who are developing their information-literate abilities

- consider research as an open-ended exploration and engagement with information;
- appreciate that a question may be more complex than it initially appears;

- value intellectual curiosity in developing questions and learning new investigative methods;
- embrace the "messiness" of research;
- maintain both an open mind and a critical stance;
- recognize that reflecting on errors or mistakes can lead to new insights and discoveries;
- value persistence, adaptability, and flexibility and recognize that ambiguity can be beneficial;
- seek divergent perspectives during information gathering and assessment;
- are willing to refine or change the direction, method, or scope of research based on new insights;
- practice self-reflection and metacognition;
- seek appropriate help when needed;
- follow ethical and legal guidelines in gathering and using information; and
- demonstrate intellectual humility (i.e., recognize their own intellectual or experiential limitations).

Scholarship Is a Conversation

Scholarship Is a Conversation refers to the idea of sustained discourse within a community of scholars, researchers, or professionals, with new insights and discoveries occurring over time as a result of competing perspectives and interpretations.

Research in scholarly and professional fields is a discursive practice in which ideas are formulated, debated, and weighed against one another over extended periods of time. Instead of seeking discrete answers to complex problems, experts understand that a given issue may be characterized by several competing perspectives as part of an ongoing conversation in which information users and creators come together and negotiate meaning. Experts understand that a query may not have a single uncontested answer and are therefore inclined to seek out many perspectives, not merely the ones with which the experts are already familiar. These perspectives might be either in their own discipline or in other fields. While novice learners and experts at all levels can take part in the conversation, established power and authority structures may influence their ability to participate and can privilege certain voices and information. Developing familiarity with the sources of evidence, methods, and modes of discourse in the field assists novice learners to enter the conversation. New forms of scholarly and research conversations provide more avenues in which a wide variety of individuals may have a voice in the conversation. Providing attribution to relevant previous research is also an obligation of participation in the conversation and enables the conversation to move forward.

Knowledge Practices

Learners who are developing their information-literate abilities

- recognize that they are often entering into an ongoing scholarly conversation, not a finished conversation;
- contribute to scholarly conversation at an appropriate level (local online community, guided discussion, undergraduate research journal, conference presentation/poster session);
- identify barriers to entering scholarly conversation via various venues;
- critically evaluate contributions made by others in participatory information environments;
- identify the contribution that particular articles, books, and other scholarly pieces make to disciplinary knowledge;
- summarize the changes in scholarly perspective over time on a particular topic within a specific discipline; and
- recognize that a given scholarly work may not represent the only—or even the majority—perspective on the issue at hand.

Dispositions

Learners who are developing their information-literate abilities

- seek out conversations that are taking place in their area of research;
- see themselves as contributors to scholarship rather than only consumers of it;
- recognize that scholarly conversations take place in a variety of venues;

- suspend judgment on the value of a particular piece of scholarship until the larger context for the scholarly conversation is better understood;
- understand the responsibility that comes with entering the conversation through participatory channels;
- value user-generated content and critically evaluate contributions made by others; and
- recognize that systems privilege authorities and that not having a fluency in the language and process of a discipline disempowers their ability to participate and engage.

Searching Is Strategic

Searching Is Strategic refers to the understanding that information searching is often nonlinear and iterative, requiring the evaluation of a broad range of information sources and the mental flexibility to pursue alternate avenues as new understanding is developed.

The act of searching begins with a question and directs the act of finding needed information. Encompassing inquiry, discovery, and serendipity, searching identifies both possible relevant sources as well as the means to access those sources. Experts realize that information searching is a contextualized, complex experience that affects, and is affected by, the cognitive, affective, and social dimensions of the searcher. A novice learner may begin searching in a few familiar resources, while an expert surveys the universe of available sources to determine where to obtain the most appropriate information sought within the project scope. Likewise, a novice learner uses few search strategies, while an expert selects from a variety of search strategies, depending on the sources and context of the information need. The expert also identifies and addresses boundaries for searching, such as the context of the initial inquiry, resource limitations, situational constraints, and time frame.

Knowledge Practices

Learners who are developing their information-literate abilities

- determine the scope of the question or task required to meet their information needs;
- identify interested parties (e.g., scholars, organizations, industry) who might produce information about a topic and determine how that information might be accessed;
- utilize divergent (e.g., brainstorming) and convergent (e.g., selecting the best source) thinking appropriately when searching;
- match information needs and search strategies to appropriate search tools;
- realize that sources of information vary greatly in content and format and have varying relevance and value, depending on the needs and nature of the search;
- design searches strategically, considering and selecting a system to search and reviewing search results;
- refine and adjust needs and search strategies during the process, as needed, and apply results to new searches;
- understand how information systems (i.e., collections of recorded information) are organized in order to access relevant information;
- use different types of searching language (e.g., controlled vocabulary, keywords, natural language) appropriately;
- recognize that some tools may be searched using both basic and advanced strategies and understand the potential of each type of strategy;
- use citation management and networking tools to manage searching processes and results; and
- evaluate and make connections between different sources and ideas.

Dispositions

Learners who are developing their information-literate abilities

- exhibit mental flexibility and creativity;
- recognize the value of browsing and other serendipitous methods of information gathering;
- actively seek out guidance from experts, such as librarians, researchers, and professors;
- understand that first attempts at searching do not always produce adequate results;
- persist in the face of search challenges and know when to stop searching; and
- respect intellectual property by consistently attributing the published and unpublished words, ideas, and products of other creators.

Sources for Further Reading

The following sources are suggested readings for those who want to learn more about the ideas underpinning the *Framework*, especially the use of threshold concepts and related pedagogical models. Some readings here also explore other models for information literacy, discuss students' challenges with information literacy, or offer examples of assessment of threshold concepts. Landmark works on threshold concept theory and research on this list are the edited volumes by Meyer, Land, and Baillie (*Threshold Concepts and Transformational Learning*) and by Meyer and Land (*Threshold Concepts and Troublesome Knowledge: Linkages to Ways of Thinking and Practicing within the Disciplines*). In addition, numerous research articles, conference papers, reports, and presentations on threshold concepts are cited on the regularly updated website Threshold Concepts: Undergraduate Teaching, Postgraduate Training, and Professional Development; A Short Introduction and Bibliography, available at http://www.ee.ucl.ac.uk/~mflanaga/thresholds.html.

ACRL Information Literacy Competency Standards Review Task Force. "Task Force Recommendations." ACRL AC12 Doc 13.1, June 2, 2012. http://www.ala.org/acrl/sites/ala.org.acrl/files/content/standards/ils_recomm.pdf.

American Association for School Librarians. *Standards for the 21st-Century Learner*. Chicago: American Library Association, 2007. http://www.ala.org/aasl/sites/ala.org.aasl/files/content/guidelinesandstandards/learningstandards/AASL_LearningStandards.pdf.

Blackmore, Margaret. "Student Engagement with Information: Applying a Threshold Concept Approach to Information Literacy Development." Paper presented at the 3rd Biennial Threshold Concepts Symposium: Exploring Transformative Dimensions of Threshold Concepts, Sydney, Australia, July 1–2, 2010.

Carmichael, Patrick. "Tribes, Territories, and Threshold Concepts: Educational Materialisms at Work in Higher Education." *Educational Philosophy and Theory* 44, no. S1 (2012): 31–42.

Coonan, Emma. *A New Curriculum for Information Literacy: Teaching Learning; Perceptions of Information Literacy*. Arcadia Project, Cambridge University Library, July 2011. http://ccfil.pbworks.com/f/emma_report_final.pdf.

Cousin, Glynis. "An Introduction to Threshold Concepts." *Planet* 17 (December 2006): 4–5.

———. "Threshold Concepts, Troublesome Knowledge and Emotional Capital: An Exploration into Learning about Others." In *Overcoming Barriers to Student Understanding: Threshold Concepts and Troublesome Knowledge*, edited by Jan H. F. Meyer and Ray Land, 134–47. London and New York: Routledge, 2006.

Gibson, Craig, and Trudi Jacobson. "Informing and Extending the Draft ACRL Information Literacy Framework for Higher Education: An Overview and Avenues for Research." *College and Research Libraries* 75, no. 3 (May 2014): 250–4.

Head, Alison J. "Project Information Literacy: What Can Be Learned about the Information-Seeking Behavior of Today's College Students?" Paper presented at the ACRL National Conference, Indianapolis, IN, April 10–13, 2013.

Hofer, Amy R., Lori Townsend, and Korey Brunetti. “Troublesome Concepts and Information Literacy: Investigating Threshold Concepts for IL Instruction." *portal: Libraries and the Academy* 12, no. 4 (2012): 387–405.

Jacobson, Trudi E., and Thomas P. Mackey. "Proposing a Metaliteracy Model to Redefine Information Literacy." *Communications in Information Literacy* 7, no. 2 (2013): 84–91.

Kuhlthau, Carol C. "Rethinking the 2000 ACRL Standards: Some Things to Consider." *Communications in Information Literacy* 7, no. 3 (2013): 92–97.

———. *Seeking Meaning: A Process Approach to Library and Information Services*. Westport, CT: Libraries Unlimited, 2004.

Limberg, Louise, Mikael Alexandersson, Annika Lantz-Andersson, and Lena Folkesson. "What Matters? Shaping Meaningful Learning through Teaching Information Literacy." *Libri* 58, no. 2 (2008): 82–91.

Lloyd, Annemaree. *Information Literacy Landscapes: Information Literacy in Education, Workplace and Everyday Contexts*. Oxford: Chandos Publishing, 2010.

Lupton, Mandy Jean. *The Learning Connection: Information Literacy and the Student Experience*. Blackwood: South Australia: Auslib Press, 2004.

Mackey, Thomas P., and Trudi E. Jacobson. *Metaliteracy: Reinventing Information Literacy to Empower Learners*. Chicago: Neal-Schuman, 2014.

Martin, Justine. "Refreshing Information Literacy." *Communications in Information Literacy* 7, no. 2 (2013): 114–27.

Meyer, Jan, and Ray Land. *Threshold Concepts and Troublesome Knowledge: Linkages to Ways of Thinking and Practicing within the Disciplines.* Edinburgh, UK: University of Edinburgh, 2003.

Meyer, Jan H. F., Ray Land, and Caroline Baillie. "Editors' Preface." In *Threshold Concepts and Transformational Learning*, edited by Jan H. F. Meyer, Ray Land, and Caroline Baillie, ix–xlii. Rotterdam, Netherlands: Sense Publishers, 2010.

Middendorf, Joan, and David Pace. "Decoding the Disciplines: A Model for Helping Students Learn Disciplinary Ways of Thinking." *New Directions for Teaching and Learning*, no. 98 (2004): 1–12.

Oakleaf, Megan. “A Roadmap for Assessing Student Learning Using the New Framework for Information Literacy for Higher Education.” *Journal of Academic Librarianship* 40, no. 5 (September 2014): 510–4.

Secker, Jane. *A New Curriculum for Information Literacy: Expert Consultation Report*. Arcadia Project, Cambridge University Library, July 2011. http://ccfil.pbworks.com/f/Expert_report_final.pdf.

Townsend, Lori, Korey Brunetti, and Amy R. Hofer. "Threshold Concepts and Information Literacy." *portal: Libraries and the Academy* 11, no. 3 (2011): 853–69.

Tucker, Virginia, Christine Bruce, Sylvia Edwards, and Judith Weedman. “Learning Portals: Analyzing Threshold Concept Theory for LIS Education.” *Journal of Education for Library and Information Science* 55, no. 2 (2014): 150–65.

Wiggins, Grant, and Jay McTighe. *Understanding by Design*. Alexandria, VA: Association for Supervision and Curriculum Development, 2004.

Appendix 1: Introduction for Faculty and Administrators

Considering Information Literacy

Information literacy is a **spectrum of abilities, practices, and habits of mind** that extend and deepen learning through engagement with the information ecosystem. It includes

- **understanding essential concepts** about that ecosystem;
- **engaging in creative inquiry and critical reflection** to develop questions and to find, evaluate, and manage information through an iterative process;
- **creating new knowledge** through ethical participation in communities of learning, scholarship, and civic purpose; and
- **adopting a strategic view of the interests, biases, and assumptions** present in the information ecosystem.

This framework sets forth these information literacy concepts and describes how librarians as information professionals can facilitate the development of information literacy by postsecondary students.

Creating a Framework

The Association of College & Research Libraries (ACRL) has played a leading role in promoting information literacy in higher education for decades. The *Information Literacy Competency Standards for Higher Education*, first published in 2000, enabled colleges and universities to position information literacy as an essential learning outcome in the curriculum and promoted linkages with general education programs, service learning, problem-based learning, and other pedagogies focused on deeper learning. Regional accrediting bodies, the American Association of Colleges and Universities (AAC&U), and various discipline-specific organizations employed and adapted the *Standards*.

It is time for a fresh look at information literacy, especially in light of changes in higher education, coupled with increasingly complex information ecosystems. To that end, an ACRL Task Force developed a new *Framework for Information Literacy for Higher Education*. The *Framework* seeks to address the great potential for information literacy as a deeper, more integrated learning agenda, addressing academic and technical courses, undergraduate research, community-based learning, and cocurricular learning experiences of entering freshman through graduation. The *Framework* focuses attention on the vital role of collaboration and its potential for increasing student understanding of the processes of knowledge creation and scholarship. The *Framework* also emphasizes student active participation and creativity, highlighting the importance of their contributions.

The *Framework* is developed around a set of "frames," which are those critical gateway or portal concepts through which students must pass in order to develop genuine expertise within a discipline, profession, or knowledge domain. Each threshold concept includes a knowledge practices section that is used to demonstrate how the mastery of the threshold concept leads to application in new situations and knowledge generation. Each concept also includes a set of dispositions that address the affective areas of learning.

For Faculty: How to Use the Framework

A vital benefit in using threshold concepts as one of the underpinnings for the new *Framework* is the potential for collaboration among disciplinary faculty, librarians, teaching and learning center staff, and others. Creating a community of conversations about this enlarged understanding should engender more collaboration, more innovative course designs, and a more inclusive consideration of learning within and beyond the classroom. Threshold concepts originated as faculty pedagogical research within disciplines; because information literacy is both a disciplinary and a transdisciplinary learning agenda, using a threshold concepts framework for information literacy program planning, librarian-faculty collaboration, and student cocurricular projects, can offer great potential for curricular enrichment and transformation.

- Investigate threshold concepts in your discipline and gain an understanding of the approach used in the *Framework* as it applies to the discipline you know.
  - What are the specialized information skills in your discipline that students should develop, such as using primary sources (History) or accessing and managing large data sets (science)?
- Look for workshops at your campus teaching and learning center on the flipped classroom and consider how such practices could be incorporated in your courses.
  - What information and research assignments can students do outside of class time to arrive prepared to apply concepts and conduct collaborative projects?
- Partner with your IT department and librarians to develop new kinds of multimedia assignments for courses.
  - What kinds of workshops and other services should be available for students involved in multimedia design and production?
- Help students view themselves as information producers, both individually and collaboratively.
  - In your program, how do students interact with, evaluate, produce, and share information effectively in a variety of formats and modes?
- Consider the knowledge practices and dispositions in each information literacy threshold concept for possible integration into your own courses and academic program.
  - How might you and a librarian design learning experiences and assignments that will encourage students to assess their own attitudes, strengths/weaknesses, and knowledge gaps related to information?

For Administrators: How to Support the Framework

Through reading the *Framework* document and discussing it with your institutions' librarians, you can begin to focus on the best mechanisms to implement the *Framework* in your institution. As an administrator, you can take the following approaches:

- Host or encourage a series of campus conversations about how the institution can incorporate the *Framework* into student learning outcomes and supporting curriculum.
- Provide the resources to enhance faculty expertise and opportunities for understanding and incorporating the *Framework* into the curriculum.

- Encourage committees working on planning documents related to teaching and learning (at the department, program, and institutional levels) to include concepts from the *Framework* in their work.
- Provide resources to support meaningful assessment of information literacy of students at various levels at your institution.
- Promote partnerships between faculty, librarians, instructional designers, and others to develop meaningful ways for students to become content creators, especially in their disciplines.

Appendix 2: Background of the Framework Development

The *Information Literacy Competency Standards for Higher Education* were published in 2000 and brought information literacy into higher education conversations and advanced our field tremendously. These, like all ACRL standards, are reviewed cyclically. In July 2011, ACRL appointed a Task Force to decide what, if anything, to do with the current *Standards*. In June 2012, that Task Force recommended that the current *Standards* be significantly revised. This previous review Task Force made recommendations that informed the current revision Task Force, created in 2013.

The charge for the current Task Force was to *update the* Information Literacy Competency Standards for Higher Education *so that they reflect the current thinking on such things as the creation and dissemination of knowledge, the changing global higher education and learning environment, the shift from information literacy to information fluency, and the expanding definition of information literacy to include multiple literacies, for example, transliteracy, media literacy, digital literacy, etc.*

Two new elements underlie the model that has been developed: threshold concepts and metaliteracy. The Task Force released the first version of the new *Framework for Information Literacy for Higher Education* in two parts in February and April of 2014 and received comments via two online hearings and a feedback form that was available online for four weeks. The committee then revised the document, released the second draft on June 17, 2014, and sought extensive feedback through a feedback form, two online hearings, an in-person hearing, and analysis of social media and topical blog posts.

On a regular basis, we used all of ACRL's and ALA's communication channels to reach both individual members and ALA and ACRL units (committees, sections, round tables, ethnic caucuses, chapters, and divisions) with updates. We maintained a private e-mail distribution list of over 1,300 individuals who attended a fall, spring, or summer online forum; provided comments to the February, April, or June drafts; or were otherwise identified as having strong interest and expertise (such as members of the Task Force that drafted ILCSHE, leading LIS researchers and national project directors, members of the Information Literacy Rubric Development Team for the Association of American Colleges & Universities, Valid Assessment of Learning in Undergraduate Education initiative). Via all these channels, we regularly shared updates, invited discussion at virtual and in-person forums and hearings, and encouraged comments on public drafts of the proposed *Framework*.

ACRL recognized early on that the effect of any changes to the *Standards* would be significant, both within the library profession and in higher education more broadly. In addition to general announcements, we contacted nearly 60 researchers who cited the *Standards* in publications outside library and information science literature, more than 70 deans, associate deans, directors or chairs of library and information science schools, and we invited specific staff leaders (and press or communications contacts) at more than 70 other higher education associations, accrediting agencies, and library associations and consortia to encourage their members to read and comment on the draft.

The Task Force systematically reviewed feedback from both the first and second drafts of the *Framework*, including comments, criticism, and praise provided through both formal and informal channels. There were 358 responses to the two official online feedback forms, as well as numerous direct e-mails sent to members of the Task Force. The group was proactive in tracking feedback on social media, namely blog posts and Twitter. While the data harvested from social media is not exhaustive, the Task Force made its best efforts to include all known Twitter conversations, blog posts, and blog commentary. In total, there were 493 feedback documents, totaling well over a thousand pages, under review. The content of these documents was analyzed by members of the Task Force and coded using HyperResearch, qualitative data analysis software. More detail on the feedback analysis can be found in the FAQ document.

The Task Force continued to revise the document and then published the third revision in November 2014, again announcing broadly and seeking comments via a feedback form.

The Task Force members as of November 2014 included the following:

- Craig Gibson, Professor, Ohio State University Libraries (Co-chair)
- Trudi E. Jacobson, Head, Information Literacy Department, University at Albany, SUNY, University Libraries (Co-chair)
- Elizabeth Berman, Science and Engineering Librarian, University of Vermont (Member)
- Carl O. DiNardo, Assistant Professor and Coordinator of Library Instruction/Science Librarian, Eckerd College (Member)
- Lesley S. J. Farmer, Professor, California State University–Long Beach (Member)
- Ellie A. Fogarty, Vice President, Middle States Commission on Higher Education (Member)
- Diane M. Fulkerson, Social Sciences and Education Librarian, University of South Florida in Lakeland (Member)
- Merinda Kaye Hensley, Instructional Services Librarian and Scholarly Commons Co-coordinator, University of Illinois at Urbana-Champaign (Member)
- Joan K. Lippincott, Associate Executive Director, Coalition for Networked Information (Member)
- Michelle S. Millet, Library Director, John Carroll University (Member)
- Troy Swanson, Teaching and Learning Librarian, Moraine Valley Community College (Member)
- Lori Townsend, Data Librarian for Social Sciences and Humanities, University of New Mexico (Member)
- Julie Ann Garrison, Associate Dean of Research and Instructional Services, Grand Valley State University (Board Liaison)
- Kate Ganski, Library Instruction Coordinator, University of Wisconsin–Milwaukee (Visiting Program Officer, from September 1, 2013, through June 30, 2014)
- Kara Malenfant, Senior Strategist for Special Initiatives, Association of College and Research Libraries (Staff Liaison)

In December 2014, the Task Force will make final changes. Two other ACRL groups are charged to review and provide feedback on near final drafts: the ACRL Information Literacy Standards Committee and the ACRL Standards Committee. By January 16, 2015, Task Force members expect to submit a final document and recommendations to the ACRL Board for their review at the ALA Midwinter Meeting in Chicago.

Notes

1. Wiggins and McTighe, *Understanding by Design*.

2. 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 in order to develop new perspectives and wider understanding. See Meyer, Land, and Baillie, "Editor's Preface."

3. For information on this unpublished, in-progress Delphi Study on threshold concepts and information literacy, conducted by Lori Townsend, Amy Hofer, Silvia Lu, and Korey Brunetti, see http://www.ilthresholdconcepts.com/. See also Townsend, Brunetti, and Hofer, "Threshold Concepts and Information Literacy."

4. Knowledge practices are the proficiencies or abilities that learners develop as a result of their comprehending a threshold concept.

5. Generally, a disposition is a tendency to act or think in a particular way. More specifically, a disposition is a cluster of preferences, attitudes, and intentions, as well as a set of capabilities that allow the preferences to become realized in a particular way (Salomon, "To Be or Not to Be [Mindful]").

6. Metaliteracy expands the scope of traditional information skills (determine, access, locate, understand, produce, and use information) to include the collaborative production and sharing of information in participatory digital environments (collaborate, produce, and share). This approach requires an ongoing adaptation to emerging technologies and an understanding of the critical thinking and reflection required to engage in these spaces as producers, collaborators, and distributors. See Mackey and Jacobson, *Metaliteracy*.

7. Mackey and Jacobson, "Reframing Information Literacy as a Metaliteracy."

8. Metacognition is an awareness and understanding of one's own thought processes. It focuses on how people learn and process information, taking into consideration individuals' awareness of how they learn (Livingston, "Metacognition").

Bibliography

Livingston, Jennifer A. "Metacognition: An Overview." Online paper, State University of New York at Buffalo, Graduate School of Education, 1997. http://gse.buffalo.edu/fas/shuell/cep564/metacog.htm.

Mackey, Thomas P., and Trudi Jacobson. *Metaliteracy: Reinventing Information Literacy to Empower Learners.* Chicago: Neal-Schuman, 2014.

Mackey, Thomas P., and Trudi Jacobson. "Reframing Information Literacy as a Metaliteracy." *College and Research Libraries* 72, no. 1 (2011): 62–78.

Meyer, Jan H. F., Ray Land, and Caroline Baillie. "Editors' Preface." In *Threshold Concepts and Transformational Learning*, edited by Jan H. F. Meyer, Ray Land, and Caroline Baillie, ix–xlii. Rotterdam, Netherlands: Sense Publishers, 2010.

Salomon, Gavriel. "To Be or Not to Be (Mindful)." Paper presented at the American Educational Research Association Meetings, New Orleans, LA, 1994.

Townsend, Lori, Korey Brunetti, and Amy R. Hofer. "Threshold Concepts and Information Literacy." *portal: Libraries and the Academy* 11, no. 3 (2011): 853–69.

Wiggins, Grant, and Jay McTighe. *Understanding by Design*. Alexandria, VA: Association for Supervision and Curriculum Development, 2004.

Appendix 3

Draft Recommendations to the ACRL Board of Directors

When the final version of the *Framework for Information Literacy for Higher Education* is submitted to the ACRL Board of Directors (anticipated in January 2015), the Task Force will include a set of recommendations for the Board's consideration. The recommendations below were included with the second (June) draft, but the Task Force has included two specific recommendations based on feedback received from the surveys and other sources.

The *Framework* has been developed to guide librarians on the areas that are essential for student understanding, and that help us to conceptualize the study of information within the curriculum of higher education. It is also meant to stimulate conversations with our partners in higher education, including faculty members, academic administrators, curriculum committees, teaching centers, and others.

1. RECOMMEDATION: The Task Force recommends that the Board approve the *Framework for Information Literacy for Higher Education* as written.

   BACKGROUND: The Task Force used a transparent process throughout the development stages. Feedback has been sought and incorporated into the *Framework*: in-person forums were held at the 2014 ALA Midwinter Meeting in Philadelphia, and the 2013 ALA Annual Conference in Chicago and a hearing was held at the 2014 ALA Annual Conference in Las Vegas. Five online forums were held in October 2013, November 2013, and April 2014. Two online hearings were held in July 2014. A total of (number?) individuals logged in (some logins were for groups).

   The June draft, like the two earlier parts, was promoted broadly, including within the higher education community. A visiting program officer specifically help us identify and reach organizations that work with faculty, accreditors, library and information science educators, and administrators to promote the revised, complete June draft. We provided discussion questions to prompt input and solicited responses via an online questionnaire. A total of (number?) people responded to the spring and summer questionnaires and their feedback helped us refine the *Framework*.

   We also sought input on near final drafts from the ACRL Information Literacy Standards Committee and the ACRL Standards Committee. All of this community feedback to the drafts was invaluable in helping us hone and refine the final *Framework* we present to you now. Some of the notable changes we made to the *Framework* in response to feedback include:
   - Creating a new Brief Introduction
   - Including a practical guide on how to use the *Framework*
   - *Revising substantially the six Frames, including the knowledge practices and dispositions following each threshold concept description*

(Note: This recommendation will be updated to include more highlights and # of people responding after we receive feedback to June draft and hold July online hearings.)

2. RECOMMENDATION: The Task Force recommends that the *Information Literacy Competency Standards for Higher Education* be sunsetted one year after the approval of the new *Framework*. This will allow librarians, programs, and institutions that use or have formally adopted the *Standards* to begin to transition to the *Framework*. The *Framework* better reflects the changed education and information environment than the *Standards*, and we feel it is inadvisable to have two documents available from which a choice can be made.

3. RECOMMENDATION: The Task Force recommends that the Board charge a new Task Force with managing the transition from *Standards* to *Framework*. We envisage this as a small, nimble group. Potential members might include two members of the current ACRL ILCSHE Task Force, one or more members of ACRL discipline sections, a member of the Information Literacy Standards Committee, a member of the Student Learning and Information Literacy Committee, and one member of the Instruction Section. Their charge would include working with a half-time ACRL staff member to design continuing education opportunities, providing feedback on the online sandbox, providing guidance to the discipline sections, developing a range of educational materials to smooth the transition, and working with higher education associations such as the American Association of Colleges and Universities (AAC&U). The Task Force recommends that the new Task Force and/or the ACRL staff member charged with implementation address two issues: (a) learner progression in all six of the Frames, so that examples are provided for the community of the sequence of levels of understanding of the concepts, knowledge practices, and dispositions for students at various stages of their academic careers; and (b) the emerging research agenda resulting from the Framework and how best to showcase ongoing research in the recommended sandbox.

4. RECOMMENDATION: The Task Force recommends that the Board encourage ACRL's discipline sections to use the *Framework* to operationalize their learning goals. The Women and Gender Studies Section is poised to serve as a model in this regard, and their work might assist other sections that undertake this project.