June 17, 2014

**Welcome, Once More**

Thank you for taking the time to read and respond to the 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 of Directors approved a unanimous recommendation that they be 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/](http://acrl.ala.org/ilstandards/).

We have had a great deal of interest in, and response to, the first and second parts of the initial draft *Framework for Information Literacy for Higher Education*, released on February 20 and April 4, 2014. For those of you who reviewed our initial draft, we very much appreciate the time that you have taken to read, reflect, discuss, and respond. The first two parts of the initial draft included:

- Introduction
- Five Threshold Concepts (three in part one and two in part two)
- Glossary
- Bibliography

Members of the Task Force have spent a great deal of time working on the *Framework* since those parts were released. This included a number of online meetings, and an intensive day and a half in-person meeting at the end of April in Chicago. Informed by your feedback, we have made a number of changes that you will see reflected in this revised, complete draft.

There are new pieces:

- A streamlined Introduction that includes a new definition of information literacy (revised from the previous version of the Introduction).
- Suggestions on How to Use this Document, a guide for introducing it on campuses.
- A sixth Frame with the title Threshold Concept Information Has Value.
- An Introduction for Faculty and Administrators.
There are also some revisions here that differ from our previously released documents:

- Each of the six units is now called a Frame. These Frames encompass the definition of the Threshold Concept as well as the accompanying Knowledge Practices/Abilities and Dispositions.
- Two of the Frames have been renamed. Format as Process is now Format as a Process, and Searching is Strategic is now Searching as Exploration.
- The Assignments sections have been moved to a separate, ancillary document. They will be added to a future online sandbox, rather than reside within the Framework proper, as they may change over time.
- The Self-Assessments sections have been removed, with some of the items moved, as appropriate, into the Dispositions and Knowledge Practices sections.
- The original Introduction has been extracted from the first draft, revised, and is an appendix called “Setting the Context.”
- A draft of the actions we will recommend the ACRL Board take is included as now 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 Tuesday, July 15, 2014, via the form at https://www.surveymonkey.com/s/WQB3NZ3. We will hold a hearing at the 2014 ALA Annual Conference in Las Vegas (Saturday, June 28, 10:30 am - 11:30 am). We also encourage you to share your perspective on the revised, complete draft during one of these upcoming online hearings:

- Monday, July 7, 2014, 11am Pacific/12pm Mountain/1pm Central/2pm Eastern
- Friday, July 11, 2014, 8am Pacific/9am Mountain/10am Central/11am Eastern

Sign up at http://www.signupgenius.com/go/5080c44abac2f4-online to attend one of these free events at least one hour in advance as login details will be emailed prior to each hearing. Links to the recorded hearings will be posted afterwards on the task force website. Each session is limited to 1,000 attendees.

We will modify the Framework as needed based on this last round of feedback gathered through the in-person and online hearings, as well as responses via the online survey. We expect to submit a final document to the ACRL Board in August 2014 for their consideration and approval in September 2014. 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. To help guide your thinking, we ask that you provide feedback to these questions:

1. How satisfied are you with the overall Framework?
2. If you have followed the development of the Framework through the previous draft, please tell us what changes you find most helpful.
3. Does the “Suggestions on How to Use the Information Literacy Framework” section, in conjunction with the Frames, help you to engage other campus stakeholders in conversation?

4. How might the Framework affect the way you work with students?

5. 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 Tuesday, July 15, 2014, via the form at https://www.surveymonkey.com/s/WQB3NZ3. We ask that you send us your reactions via that form so it is easier to compile all the comments we expect to receive and ensure we don’t overlook any comments in an email gone astray. 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 the draft.

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

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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 already developed learning outcomes, tools, and resources which some institutions have deployed to infuse information literacy concepts and skills in 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 to 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 which can extend learning for students, in creating a new cohesive curricula 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 a set of standards or learning outcomes, or any prescriptive enumeration of skills. The Framework is based upon threshold concepts, 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,¹ but has molded the Framework with 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, which are demonstrations of ways in which learners can increase their understanding of these information literacy concepts; and dispositions, which describe ways in which the affective, attitudinal, or valuing dimension of learning can be addressed. The Framework is organized into six Frames, each consisting of a threshold concept that is central to

information literacy; a set of knowledge practices; and a set of dispositions. The six
threshold concepts that anchor the frames are:

1. Scholarship is a Conversation
2. Research as Inquiry
3. Authority is Contextual and Constructed
4. Format as a Process
5. Searching as Exploration
6. Information has Value

Neither the knowledge practices nor the dispositions that support each threshold concept
is 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 its own situation,
and to design learning outcomes based on the knowledge practices and dispositions for
local purposes.

In addition, this Framework draws significantly upon the concept of metaliteracy, which
offers a renewed vision of information literacy as an overarching set of abilities in which
students are both consumers and creators of information in multiple formats. Metaliteracy demands behavioral, affective, cognitive, and metacognitive engagement
with the information ecosystem; this Framework depends on these core ideas of
metaliteracy as well, with special focus on metacognition, 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 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 repertoire of understandings, practices, and dispositions
focused on flexible engagement with the information ecosystem, underpinned by
critical self-reflection. The repertoire involves finding, evaluating, interpreting,
managing, and using information to answer questions and develop new ones; and
creating new knowledge through ethical participation in communities of learning,
 scholarship, and practice.

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.

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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 we conceptualize the study of information within the curriculum 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 encourages the library community to discuss the new Framework widely and to develop supplemental resources such as curriculum guides, concept maps, assessment instruments, etc. 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 of 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 there are some synergies 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 department, and for graduate student education. The Frames are intended to demonstrate the movement of thinking from novice to expert in a specific area; this 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 practitioners to
understand that the Framework is not designed to be implemented in one, sole
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. We encourage you to 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 resources that will be developed to share instructional materials,
  assessments, etc. with other information literacy librarians.
The Six Frames

Scholarship is a Conversation

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

While many questions can be answered by appeal to a single, authoritative source--the capital of a country or the atomic number of an element, for example--scholarly research resists simple answers. Rather, scholarship is 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, scholars understand that a given issue may be characterized by several competing perspectives. Far from a unified body of uncontested knowledge, the scholarly record is better understood in terms of a conversation in which information users and creators come together to negotiate meaning, with the expert adding his or her voice to the conversation. The expert understands that there may not be a single uncontested answer to a query and, hence, is inclined to seek out the many perspectives in a scholarly conversation, not merely the one with which the expert already agrees.

Knowledge Practices (Abilities)

Learners who are developing their information literate abilities:

- 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.
- Contribute to scholarly conversation at an appropriate level (local online community, guided discussion, undergraduate research journal, conference presentation/poster session).
- Predict that a given scholarly work may not represent the only--or even the majority--perspective on the issue at hand.
- Critically evaluate contributions made by others in participatory information environments.
- Recognize that they are often entering into the midst of a scholarly conversation, not a finished conversation.

Dispositions

Learners who are developing their information literate abilities:

- Seek out conversations that are taking place in their area of research.
- Suspend judgment on the value of a particular piece of scholarship until the larger context for the scholarly conversation is better understood.
- Recognize that scholarly conversations take place in a variety of venues.
- Value user-generated content and critically evaluate contributions made by others.
- See themselves as contributors to scholarship rather than only consumers of it.
- Understand the responsibility that comes with entering the conversation through participatory channels.
Research as Inquiry

Research as Inquiry refers to an understanding that research is iterative and depends upon asking increasingly complex questions whose answers develop new 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 by developing a knowledge base of lines of inquiry, research methodologies, and best practices for conducting research. Many times, this process includes points of disagreement where debate and dialog 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 thus encompasses processes of basic recapitulation of knowledge and data, by the novice, through increasing stages of greater understanding of a discipline or exchanges between disciplines, among more experienced researchers. The novice works to understand foundational ideas, methods, and over time develops the corresponding ability to formulate more advanced research questions and employ a greater repertoire of investigative methods.

Knowledge Practices (Abilities)

Learners who are developing their information literate abilities:

- Conduct research through the lens of inquiry in order to enhance the impact of their work.
- Provide evidence of understanding that methods of research leading to new knowledge creation vary by need, circumstance, and type of inquiry.
- Formulate questions for research based on gaps in information or data available.
- Communicate effectively with collaborators in shared spaces and learn from multiple points of view.
- Engage in informed, self-directed learning that encourages a broader worldview through the global reach of today’s information technology.

Dispositions

Learners who are developing their information literate abilities:

- Value persistence, adaptability, and flexibility, and recognize that ambiguity can be beneficial.
- Seek opportunities to transform current research-related practices in order to conduct more authentic research.
- Practice thinking critically when confronting new learning, where lack of familiarity with new methods and approaches requires additional effort.
- Value intellectual curiosity in developing questions and learning new investigative methods.
- Recognize that learning is a process and that reflecting on errors or mistakes leads to new insights and discoveries.
Authority is Constructed and Contextual

Authority of information resources depends upon the resources’ origins, the information need, and the context in which the information will be used. This authority is viewed 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 the degree of trust that is bestowed and as such, authority is both contextual and constructed. It is contextual in that the information need may help determine the level of authority required. For instance, getting a weather forecast before going on a picnic does not require the foremost meteorological authority while a dissertation on the latest weather models may. It is constructed in that various communities may recognize different types of authority. For instance, a religious community may recognize the authority of religious leaders and texts which may not be as highly regarded by others who are not part of the community. Scholars within a discipline may value specific publications or publishers over others. Allowing that some kinds of expertise are more worthy than others can result in privileging certain sources of information unduly.

An understanding of this concept enables 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 information need of the moment. Thus, the learner both respects the expertise that authority represents, while remaining skeptical of both the systems which have elevated that authority and the information created by it. The experienced researcher knows how to seek authoritative voices, but also recognizes that unlikely voices can be authoritative, depending on need. The novice researcher 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 (Abilities)

Learners who are developing their information literate abilities:

- Determine how authoritative information should be for a particular need.
- Identify markers of authority when engaging with information, understanding the elements that might temper that authority.
- 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 dynamic user-generated information.
- Acknowledge that they themselves may be seen, now or in the future, as authorities in a particular area, and recognize the responsibilities that entails.
- Evaluate user response as an active researcher, understanding the differing natures of feedback mechanisms and context in traditional and social media platforms.
Dispositions

Learners who are developing their information literate abilities are:

- Inclined to develop and maintain an open mind when encountering varied and sometimes conflicting perspectives.
- Motivated to find authoritative sources, recognizing that authority may be conferred or manifested in unexpected ways.
- Aware of the importance of assessing content critically to the best of their ability.
- Recognize that there are potential problems with traditional notions of granting authority.
- Conscious that maintaining these attitudes and actions requires frequent self-monitoring.
Format as a Process

Format is the way tangible knowledge is disseminated. The essential characteristic of format is the underlying process of information creation, production, and dissemination, rather than how the content is delivered or experienced.

A print source is characterized by its physical structure (e.g., binding, size, number of pages) as well as its intellectual structure (e.g., table of contents, index, references). A digital source is characterized by its presentation, intellectual structure and physical structure (e.g., file format). In many cases, the way that information is presented online obscures not just the format, but also the processes of creation and production that need to be understood in order to evaluate the source fully. Understanding what distinguishes one format from another and why it matters requires a thorough knowledge of the information and research cycles, scholarly communication, and common publishing practices, especially for those who have never experienced the print version of formats.

The expert understands that the quality and usefulness of a given piece of information is determined by the processes that went into making it. The processes of researching, writing, editing, and publishing information—whether print or digital—can be highly divergent, and information quality reflects these differences. From tweets to magazines to scholarly articles, the unique capabilities and constraints of each format determines how information can and should be used. The expert learns that the instant publishing found in social media often comes at the cost of accuracy, while the thorough editorial process of a book often comes at the cost of currency. Whatever form information takes, the expert looks to the underlying processes of creation as well as the final product in order to critically evaluate that information for use as evidence.

Knowledge Practices (Abilities)

Learners who are developing their information literate abilities:

- Understand that format and method of access are separate entities.
- Recognize that different creation processes result in the presence of distinct attributes.
- Articulate the purposes of various formats, as well as their distinguishing characteristics.
- Identify which formats best meet particular information needs.
- Decide which format and mode of transmission to use when disseminating their own creations of information.
- Transfer knowledge to new formats in unpredictable and evolving environments.

Dispositions

Learners who are developing their information literate abilities:

- Are inclined to seek out markers for information sources that indicate the underlying creation process.
- Identify the most effective format in seeking information.
- Understand that different formats of information dissemination with different impacts are available for their use.
Searching as Exploration

Locating information requires a combination of inquiry, discovery, and serendipity. There is no one size fits all source to find the needed information. Information discovery is nonlinear and iterative, requiring the use of a broad range of information sources and flexibility to pursue alternate avenues as new understanding is developed.

The search for information is ignited by inquiry, the pursuit of which is rarely linear and requires the knowledge and use of a range of source types. It is also a process of discovery, and experts realize that methods employed may be fluid and that any element (including inquiry) of an overall approach can change based on increased understanding of a subject; discovering one source can lead to other sources or avenues of inquiry. Experts also recognize that there are boundaries for research, such as the context of the initial inquiry and time available to pursue it, and that part of the process is determining project scope based on these boundaries.

A novice researcher may rely on one or two familiar resources while an expert surveys the breadth of information sources to determine where to best obtain the information sought within the project scope. These sources include more than Internet resources, databases, social media, books, journals, etc. They include the knowledge, observations and expertise of people as well. For example, it may become necessary to conduct a formal interview or stop somewhere to ask for directions. Experts use resources that make the most contextual sense to satisfy an inquiry ethically.

Further, effective use of selected resources is predicated on understanding them. Just as understanding how a system is constructed and works will empower the expert to uncover more relevant results, an understanding of people and effective communication can enable access to their knowledge. The very best interviewers are more effective at teasing out details than beginners, for example. Experts will also spend time learning about their selected resource to better understand it and access needed information as different resources require different methods of access.

Knowledge Practices (Abilities)

Learners who are developing their information literate abilities:

- Determine the scope of the question or task required to meet one’s needs.
- Identify interested parties that might produce information about a topic and how that information might be accessed.
- Demonstrate the importance of matching information needs and search strategies to appropriate search tools.
- Recognize that some tools may be searched using both basic and advanced strategies, and understand the potential of each.
- Are inclined to discover citation management and sharing features, moving them from searching for information to information management strategies.
Dispositions

Learners who are developing their information literate abilities:

- Show through their searching that they value persistence, adaptability, and flexibility.
- Understand that first attempts at searching don’t always pay off.
- Are willing to analyze needs at the beginning of information searches.
- Recognize the value of browsing and other serendipitous methods of information gathering.
- Reevaluate needs and next steps throughout the search process.
Information has Value

Information has Value acknowledges that the creation of information and products derived from information requires a commitment of time, original thought, and resources that need to be respected by those seeking to use these products, or create their own based on the work of others. In addition, information may be valued more or less highly based on its creator, its audience/consumer, or its message.

Experts understand that this value designates information as intellectual property, and therefore, recognizes three important dimensions of value. First, information can act as a commodity, and as such, creators can use their work for financial, reputational, social, or civic gains. These motivations may determine how information sources are shared whether given freely, offered for sale, or leased for temporary access. Information users have responsibilities as both consumers and creators of information based on the work of others. Academic and legal practices such as proper attribution of sources and complying with copyright are a result.

Second, as intellectual property, information sources are affected by economic, sociological, and political influences. The means of production may privilege some voices over others. Some search systems may privilege some sources over others due to economic incentive. Experts understand the consequences of selecting appropriate research methods (such as applying the correct statistical analysis to data), the limitations of publishing practices (such as scholarly journals’ lack of interest in publishing negative research results), and the boundaries to accessing the information ecosystem (such as populations without internet access or obstacles created by paywalls).

Finally, experts recognize that their online activity and information they contribute to online sites can be used for economic gain by the sites themselves. Such uses may include personal information harvested from social media sites or advertisements placed on "free" web tools or apps. One's online presence is monitored, tracked and, ultimately, monetized.

Knowledge Practices (Abilities)

Learners who are developing their information literate abilities:

- Give credit to the original ideas of others through proper attribution and citation.
- Recognize the meaning of intellectual property in the United States.
- Understand that intellectual property is a social construct that varies by culture.
- Articulate the purpose and distinguishing characteristics of copyright, open access, and public domain.
- Know how to find open access materials.
- Differentiate between the production of original information and remixing or re-purposing open resources.
- Manage their online presences responsibly.
- Decide where their information, as knowledge creator, should be published.
Dispositions

Learners who are developing their information literate abilities:

- Respect the original ideas of others and the academic tradition of citation and attribution.
- Value the creative skills needed to produce information.
- See themselves as contributors to the information marketplace rather than only consumers of it.
- Recognize issues of access or lack of access to information sources.
- Understand that some individuals or groups of individuals may not be represented within the information ecosystem.
Sample Assignments that Support the Framework

This document contains assignment ideas for each of the six Frames. They address diverse teaching situations, and can be used by librarians and disciplinary faculty members either individually or jointly, depending on the situation. Librarians who teach information literacy credit courses, or are integrated in other courses, will find ideas that will work best when there are multiple points of contact with students. Those who teach single-session course-related instruction will find ideas that they can integrate into their own sessions, while other ideas rely upon collaboration with the disciplinary faculty member teaching the course in collaborative assignment design.

The lists of examples are not exhaustive, nor are they meant to be prescriptive, but are provided to spark ideas for the creation of others. Each teaching situation has its own possibilities and constraints that require attention. The goal is to encourage reflection and creativity on the part of the librarian and course instructor, and to meet the specific needs of institutions or programs. Classroom assessment techniques and methods that work with the flipped classroom model are just two types to of exercises to be found in these sections. This material will move to an online sandbox which will be developed to support this new Framework. We envision it as a rich resource for ideas, examples, and answers to questions.

Scholarship is a Conversation

- Give students in professional or career-focused programs assignments that examine how practice and/or procedures evolve over time. Ask them to consider how the profession shares information.
- Give students a two-part assignment: one having them trace the development of scholarship on a particular topic using the traditional “information cycle” model with the “invisible college” and print publication outlets; then have them expand/refine that model by tracing changes based on social media forums or online communities.
- Assign an entire class to conduct an investigation of a particular topic from its treatment in the popular media, and then trace its origin in conversations among scholars and researchers.
- Have students select a seminal work on a topic, and then identify sources that preceded and continued the conversation, analyzing the impact of the seminal work on the field.
- Create a timeline to track the evolving threads of a continuing scholarly conversation.
- Select a topic on which students have some knowledge or experience. Identify a venue (blog, discussion forum, other social media site) in which a scholarly conversation is taking place. Ask students to:
  - Identify key players and their perspectives.
  - Compare a related scholarly article by one of the players to the online conversation.
  - Consider how to involve themselves in the conversation.
Research as Inquiry

- Students in a first year course reflect upon the steps they went through when researching a major purchase or event in their lives (buying a car, selecting a college, etc.). They identify the steps involved in the research behind such a decision, and confront the importance of such a employing a similar strategy in the academic setting.

- In an upper level course, students trace the development of a scholar’s research agenda following a sequence of presentations, publications (perhaps starting with a dissertation topic), social media presence, etc. The students reflect upon the inquiry underlying these information packages in an e-portfolio assignment.

- A researcher/guest speaker attends the class and describes a research project from conception to conclusion. Students attempt to diagram the steps reflected in the description, and then work with the speaker to develop a robust conception of the process (recognizing that the process varies from project to project and researcher to researcher). Students then journal about how their research process relates to that of the researcher, and what changes they might make in order to attempt more authentic, knowledge-generating research experiences.

- Assign students to keep research logs in which they note changes in particular research directions as they identify resources, read, and incorporate new learning.

- Ask students in professional or career-focused programs to evaluate the role of evidence-based that may move toward changing practice.

Authority is Contextual and Constructed

- Provide students with two different information types (with two different goals) on the same topic by the same unnamed authoritative creator/author (for example, scholarly article and blog post). Use as discussion starter with students about context in relationship to authority. Reveal authorship later in discussion.

- Ask students in professional or career-focused programs to consider who has authority within their areas of study and the origins of that authority.

- Ask students to find several scholarly sources on the same topic that take very different stands. How was it that the authors came to different conclusions? Does it have to do with authority?

- Ask students to brainstorm situations when traditional peer review might not accomplish its purpose.

- Have students look at a blog, a video on YouTube, a collection of tweets, or some other type of social media regarding a contemporary event (e.g. demonstrations at Tahrir Square during the "Arab Spring" events). Ask them to describe how they would analyze and evaluate the authority the author(s) of the information. Are there ways to determine whether the individual was an actual witness or participant in the events? Are there ways to identify whether the individual or group that developed a collection of information has a particular political bias? Can they determine whether the author(s) has a particular status within the group he/she represents or is the individual reporting as an "average citizen"?

- Ask students to create a citation "web" using a citation analysis database, and conduct a content analysis of the linked authors by affiliation (workplace, academic preparation, geography, subject expertise). Do authors cite each other?
Are there some authors who are outliers in the web? How do such connections impact information generation?

**Format as a Process**

- Assign students to identify several different applicable information sources that arise from different creation processes, and to communicate the unique values of each. (in collaboration with instructor and course assignment).
- Student will identify the format of the sources they find for a given research project and articulate why the chosen formats are appropriate for the information need.
- Student will find sources about the same topic in two divergent formats, e.g. newspaper movie review and literary journal movie review or scholarly article and a researcher’s blog. Students will compare and contrast the type of information found in each format, as well as articulate the processes underlying the creation of each format.
- Have students research the impact of digital formats in scholarly publication, including Open Source initiative.
- Ask students to transform information they have created in one format to another format, and to write a reflection on what they needed to consider as they went through the process.

**Searching as Exploration**

- Ask students to brainstorm possible sources that might have relevant information. What tools will they need to locate those resources?
- Assign students to identify and use subject headings after conducting a keyword search; after which they write a paragraph on the differences between subject and keyword searching.
- Students must identify one or two important databases for the project they are working on and analyze why they consider them to be an effective resource for their research.
- Ask students to choose a topic, develop key search terms, and use two different search engines to locate information on their topic. Have them compare the results in terms of quantity, types of sources (e.g., government, educational, scholarly, and commercial), order/sequence of results, and relevance. Pair students who used the same search engine with different topics to compare results.
- Ask students to write an I-Search paper, whereby they journal their searching processes, including key terms, tools used, and resources/results at each step. They should note how they evaluated their resources, and what information was extracted. Their journal should also reflect their feelings: success, concern, frustration, pride, etc. Pair up students, and ask them to read and comment on each other's journal, and then draw up conclusions and recommendations for their peers.

**Information has Value**

- Time is money. Ask students to blog for a week about their life of information, noting their information needs and the associated costs of getting that information. What are the associated costs if they cannot find the information, and what are the
cost benefits of getting the information? For example, if a student cannot find a
FAFSA form in time, or how to complete it, or the details to provide within the
form, they lose out on scholarships.

• Ask students to find several images that would enhance the project or paper on
which they are working. Then ask them to determine which can be used without
asking permission. What would they need to do to use this material?

• Assign students to read a timely article connected to information ethics in the
field of study as a discussion starter.

• Ask students in professional or career-focused programs to consider what
individuals or organizations make money distributing information relating to that
profession or career. Have students discuss the usefulness and potential risks
behind this information.

• Discern between the economic processes behind different types of information,
e.g. newspaper articles vs. 24-hour TV news, edited academic volume vs. popular
title on a top 10 list.

• Ask students to determine what information they can find about themselves or a
relative online, and to assess whether steps should be taken to control this
personal information.
Dispositions—Generally: A tendency to act or think in a particular way (Merriam-Webster dictionary). 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, 1994)

Knowledge Practices—The proficiencies or abilities learners develop as a result of their comprehending a threshold concept.

Metacognition—Awareness and understanding of one’s own thought processes (OED). It focuses on how people learn and process information. It also takes into consideration an individual’s awareness of how they learn. (Livingston, 1997)

Metaliteracy—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. (Mackey and Jacobson, 2014)

Threshold Concepts—Core or foundational concepts that, once grasped by the learner, create new perspectives and ways of understanding a discipline or challenging knowledge domain. Threshold 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. (Land, Meyer, and Baillie, 2010)

Transformative Learning—Transforming the frames of reference that are the basis of a learner's interpretations, beliefs, or points of view. A learner's frame of reference is transformed through a critical reflection on his or her assumptions. Educators can facilitate the transformation by helping learners to become aware of and reflective about their assumptions, beliefs, or points of view. (Mezirow, 1997)
Sources for Further Reading


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Appendices

Appendix 1

Setting the Context: The Framework for Information Literacy in Higher Education

The changes in higher education, coupled with a more complex information ecosystem than existed at the end of the last century, demand new engagement with the concept of information literacy. This Introduction explores the reasons for the dramatic shift from standards to a framework; discusses the key elements upon which the new Framework rests, threshold concepts and metaliteracy; and includes the components of the Framework that help to move it from a conceptual rendering to a full-fledged, living entity upon which to develop collaborative programs suitable for unique situations. The concluding section acknowledges the stakeholders and community who are engaged in this conversation.

Shifts in Higher Education Landscape Since 2000

It is difficult to characterize changes in higher education as a whole in recent years. There are variations, in particular, among types of higher education institutions and sub-groups of the student population. The most popular major in the United States is business, and the proportion of students who are the first in their family to attend college and/or are above traditional college age (18-22) is increasing.

As institutions begin conversations around this Framework for Information Literacy for Higher Education, they need to take into account the demographics of their institution and its academic culture. Given the highly diverse landscape of higher education in the United States, this section focuses on a selective set of trends that may inform conversations about this Framework on campuses.

Some particular trends that are important to understand in the context of this Framework are the rise of collaborative student work and the increase in students as creators and participants in research and scholarship. Many programs, for example in business or communications, believe that a key aspect of preparing students for professional work is to develop students’ ability to work in teams. Information literacy programs can take advantage of this trend in encouraging new types of multimedia assignments since such projects are most frequently developed by teams of students.

A number of colleges and universities are developing programs for undergraduate research, which frequently pair undergraduates with faculty members in science labs and can result in students co-authoring papers or presenting at national conferences. Students in the humanities and social sciences are also engaging in new types of digital projects along with their faculty members, such as creating interactive maps of cities where authors worked or annotating and linking classic texts. These students need to navigate information systems, use data sources, and integrate various technology applications to learn ways of thinking and practicing within disciplines.
Some colleges and universities are placing a greater focus on integrative learning. In some cases, this is developed as a learning communities program where a cohort of students takes a set of courses together in the early years of their college program. Such programs often emphasize cross-disciplinary critical thinking and communication skills.

A related trend, interdisciplinarity, seeks to leverage the methods and perspectives from more than one discipline in order to approach problems in new ways.

An area that has not received much attention in the context of information literacy is the rise in professional masters degrees at many institutions. Students in these programs, who may have full-time employment while completing their programs, have particular needs for efficient mechanisms for accessing and producing information.

The role of information technology in pedagogy in higher education has also received much attention in the period since the development of the Information Literacy Competency Standards for Higher Education. Blended learning, which combines in-person teaching along with online components, has become a popular mode of pedagogy, especially in large public institutions. MOOCs (massive open online courses) have been much in the news in recent years; librarians have been working to understand how to integrate information literacy into these classes as well as provide information resources to support the courses. The concept of the “flipped classroom,” in which students in effect get the traditional lecture component of a course outside of class (via videos and readings) and then use class time for collaborative, active learning assignments, facilitated by faculty, has documented success in improving student outcomes in many courses and institutions. This focus on active, collaborative learning is a key development in recent U.S. higher education pedagogy.

Greater need for sense-making and metacognition in a fragmented, complex information environment requires the ability to understand and navigate this environment holistically, focusing upon intersections. These intersections may be between disciplines, between academic major and employment, between sets of projects, or between academic pursuits and community engagement, to name just a few. All of these intersections are underpinned by the need to engage with information and the communication of information. To do so effectively, students must understand the intricate connections between knowledge, abilities, and critical dispositions that will allow them to thrive.

Refocusing the Current Standards: Creating a Framework

The Information Literacy Competency Standards for Higher Education, developed by an ACRL Task Force in 1999-2000 and first published in 2000, have advanced discussion about information literacy as an educational reform agenda during the past 14 years. They have enabled some colleges and universities to position information literacy as an essential learning outcome in general education programs, and in some cases have promoted linkages with service learning, problem-based learning, evidence-based learning, and other pedagogies focused on deeper learning within, and beyond, the classroom. Regional accrediting bodies and the American Association of Colleges and Universities (AAC&U) have employed the Standards to create benchmarks, guidelines, or rubrics in order to integrate information literacy into the curriculum as an essential learning outcome. In addition, various discipline-specific associations and organizations
have adapted or rewritten the Standards to best fit disciplinary concepts and methods (in such fields as music and political science).

The new Framework addresses some limitations of the current Standards in a number of areas that have become more important in higher education in recent years. The Framework moves beyond the Standards’ conception of information literacy, which provides a limited, almost formulaic approach to understanding a complex information ecosystem. The organization of the Standards document in a hierarchy of standards, performance indicators, and learning outcomes conveys a fixed conception of how information literacy can be realized in varied curricula. The Standards also focus attention on the objects of scholarship as mostly textual ones, reflecting the time in which they were written. Although the Standards pay some regard to other modes of scholarship and learning (visual, data, multimedia), the explosion of these modes and the increasingly hybridized, multi-modal nature of learning and scholarship require an expanded conception of information literacy learning and pedagogy beyond the mostly text-based focus of the Standards. In the proposed Framework, we hope to provide spaces for creative, integrative, flexible thinking about the dynamic information ecosystem in which all students live, study, and work.

The Standards also valorize the “information literate student” as a construct of imagined accomplishment, at the endpoint of a set of learning experiences, without the involvement of peers, tutors, coaches, faculty advisors, or other collaborators. While individual student learning and initiative are always important, learning and scholarship also involve others, whether through face-to-face discussions, virtual communities, debates and dialogues in blogs, conference presentations, community or citizen meetings, or through solitary but active reading of, and grappling with, the ideas in challenging texts. The Framework focuses more 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 creativity and participation, highlighting the importance of their contributions. Students’ intelligent, engaged use of the information environment for learning occurs within a wider circle of participation and enlarged understanding made possible through many formal academic experiences as well as many daily non-academic experiences.

The need for “sense-making” within the evolving information ecosystem means that the whole learner must be engaged, transcending purely cognitive skills. Educational researchers are paying increasing attention to affect as a driver for critical thinking, to which all conceptions of information literacy pay homage. Critical thinking is an ongoing educational mission for all levels of education; it has ancient roots and has been carried forward into the discussions of information literacy for the past two decades as an educational goal, despite the many challenges of defining it in a way that satisfies various disciplinary specialists. However, critical thinking, as identified in the Standards, focuses almost exclusively on cognition, ignoring the vital aspect of attitudes, emotion, and dispositions (tendencies or preferences to learn in certain ways) in creating the willingness to learn difficult new concepts, and to develop self-efficacy. The lessons that we have learned from Carol Kuhlthau’s research on the role of affect in the search
process are crucially applicable now, as students must “make meaning” of an extremely mutable set of information resources and processes, and must tolerate ambiguity within a learning environment in which fixed reference points are becoming less “fixed.” The engagement of all of students’ capacities, whether cognitive, affective, volitional, or value-based, in learning communities broadly defined, offers the greatest potential for institutional change in information literacy programming, rather than focusing only on cognitive learning outcomes in scattered academic courses. The proposed Framework seeks to address the great potential for information literacy as a deeper, more integrated learning agenda, focused on academic courses, undergraduate research, service learning, digital projects showcasing student research, and through other initiatives at local institutions that span the formal academic and co-curricular and field learning experiences of novices (first-year students), students in undergraduate majors, as well as graduate and professional students.

Information Literacy: A New Definition

ACRL’s previous definition of information literacy describes it as a set of skills or competencies that are uniform among all learners. This conception is based on an inventory of competencies assumed to operate one-dimensionally across all disciplines and contexts. Other conceptions growing out of the research of Bruce, Lupton, Lloyd, and Limburg identify the limitations of this skill- and- individual-attribute-based conception. The commonalities of these researchers’ findings emphasize the highly relational, context-specific nature of information literacy, and the varied circumstances in which individuals and groups activate these competencies and describe them to researchers. Clearly, the experience of studying, working, and living in a complex information environment produces a variety of potential models for information literacy learning across a variety of disciplines, domains, contexts, and work environments.

The creation of this new Framework suggests an expanded definition of information literacy, one that goes to the heart of learning itself, while allowing for varied manifestations of what information literacy means for students, faculty, administrators, and a range of academic specialists in a variety of academic institutions. The following definition underpins the Framework:

Information literacy is a repertoire of understandings, practices, and dispositions focused on flexible engagement with the information ecosystem, underpinned by critical self-reflection. The repertoire involves finding, evaluating, interpreting, managing, and using information to answer questions and develop new ones; and creating new knowledge through ethical participation in communities of learning, scholarship, and practice.

The Framework is based on concepts about the information ecosystem; practices for increasing expertise within it; particular ways of thinking about it and behaving within it; and general strategies for learning from it. The Framework consists of the following interconnected elements that produce a coherent whole:

1. Core understandings about the evolving information system (threshold concepts).
2. A set of practices that demonstrate increased credibility within that ecosystem, as both consumer of information and creator of knowledge (knowledge practices).

3. A way of thinking that develops more expert “moves” within that dynamic information ecosystem (dispositions).


A New Framework for Information Literacy: Using Threshold Concepts

An expanded conception of information literacy calls for the creation of a more open framework to allow for wider and deeper integration of information literacy within the formal academic curriculum and beyond it, in co-curricular contexts, where students themselves increasingly assume leadership roles in campus projects involving astute information use and the creation of scholarship.

This new Framework addresses foundational or core concepts in information literacy that coalesce some of the subordinate or more granular concepts and skills usually taught in library instruction; such concepts should position information literacy on a higher plane, as an integral part of the learning process within disciplines, and across them. Such core concepts should address the “bottlenecks of understanding” or challenges that students face in learning to maneuver expertly within the information landscape. These gaps or “bottlenecks” are best addressed through threshold concepts. Threshold concepts grow out of pedagogical research in the United Kingdom, originating with the work of Meyer and Land, in the field of economics; the theory behind these concepts has since been adopted by faculty in disciplines as varied as biology, geology, management, accounting, history, philosophy, engineering, design, and nanoscience. Growing interest in the library field in threshold concepts as a different way of framing information literacy is evident in the research and writing of Hofer, Brunetti, and Townsend. An ongoing Delphi study conducted by these authors and others has, in fact, informed the work of the Task Force that has developed the Framework presented here.

Threshold concepts are those challenging “gateway” or portal concepts through which students must pass in order to develop genuine expertise within a discipline, profession, or knowledge domain. Meyer and Land identified several characteristics of threshold concepts, among them: transformative; integrative; irreversible; bounded; and troublesome. While some faculty and pedagogical experts have discussed these characteristics within their disciplines for a decade, the library community is just now examining threshold concepts and their potential for teaching information literacy for the first time. This Framework for Information Literacy for Higher Education will focus on these characteristics of threshold concepts in order to clarify, among numerous potential concepts that could be considered essential, the ones that are truly “portals” to understanding. The same characteristics identified by Meyer and Land apply to the domain of information literacy. That is, the Framework includes core concepts that offer the potential to transform understanding of the information environment so that more granular ideas and skills make greater sense (answering the “Why”? question for students who might otherwise see information literacy skills as pointless); to integrate various concepts relating to the information ecosystem into a network of concepts and understandings, so that more coherence is possible in developing curricula for
information literacy; to make irreversible the learning of deeper features of the
information ecosystem, precluding a return to more simplistic notions about information
sources and processes; to demarcate concepts in the field of information literacy from
other, related fields, through boundedness; and to address troublesome, difficult, or
counterintuitive aspects of the information ecosystem so that diagnostic work can occur
in identifying “bottlenecks in understanding” of various features of the ecosystem,
through formative assessment and redesign of learning experiences and information
literacy programs and curricula.  

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 create conditions for more collaboration, more
innovative course designs, more action research focused on information literacy, 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 co-curricular projects, should offer great potential for
curricular transformation.

Metaliteracy

The conception of information literacy as a metaliteracy informs the Framework.
Metaliteracy builds upon information literacy’s traditional core components by
emphasizing new roles and responsibilities brought about by emerging technologies and
collaborative communities. “Metaliteracy empowers learners to participate in interactive
information environments, equipped with the ability to continuously reflect, change, and
contribute as critical thinkers.” It is important for individuals to view themselves as
information producers, both individually and collaboratively, and to recognize that they
join many others in this role. As both producers and consumers of information content in
an ever-changing variety of formats and modes, learners must recognize that in adapting
to these changes, they must interact with, evaluate, and share information effectively and
flexibly. Metacognition, or consciously reflecting about one’s thinking, is critical to
metaliteracy. The learning objectives that have been developed for metaliteracy recognize
that individuals call upon multiple domains when participating fully in the evolving
information environment. These domains include the cognitive, metacognitive, affective,
and behavioral.

Organization of the Framework

The Framework is organized into a set of six Frames, each consisting of a threshold
concept, as well as a set of knowledge practices and dispositions that support learning
goals for each threshold concept. In addition, assignments supporting each of the Frames
are available in another section of this document.

Knowledge Practices (Abilities)

Each threshold concept includes a section entitled Knowledge Practices (Abilities). This
terminology is used in order to emphasize that the focus is not on learners simply
acquiring skills. Rather, their mastery of these transformative threshold concepts leads to new knowledge, which brings with it the ability to engage in the described practices. A selection of expected knowledge practices is provided for each threshold concept. These provide a foundation for a more extensive set determined by the unique situation of each learner.

**Dispositions**

This Framework includes a set of dispositions for each of the threshold concepts. Students and others learn best when they use more than their cognitive faculties. It is important that they be open to the experience and substance of what they are learning. This is particularly true with threshold concepts, which, by definition, are troublesome. The Dispositions section provides a guide that will assist instructors and learners alike. While it is provided for instructors to design learning experiences that will encourage students to consider their attitudes and feelings about the new concepts, it might also, in appropriate situations, be shared directly with students to promote self-reflection.

“Dispositions in Action” is a section in each of the four areas in the American Association of School Librarians’ Standards for the 21st-Century Learner. The presence of this component in both documents provides continuity in learning experiences from K-12 to higher education.

**Assignments**

Each frame includes a selection of activities that can be used as, or inspire assignments or activities. These assignments are to be found in an ancillary document, and will eventually be moved to an online sandbox, once it is created. The sandbox will be a rich resource for ideas, examples, and answers to questions, and will include other possible assessment and assignment ideas.

**Stakeholders**

A strong community has developed around the Information Literacy Competency Standards for Higher Education, published in 2000. Librarians around the country, and in fact around the world, have worked to include the Standards in overall educational requirements for their institutions. Some accrediting bodies for U.S. higher education regions have promoted the use of the Standards in institutional reviews. However, in many institutions, the Standards have been implemented in a librarian-driven process, often without explicit buy-in from academic departments. The intent of this Framework is to encourage conversations among a broad group of stakeholders who will craft an information literacy program that meets the needs of their institution. Disciplinary faculty members have a primary role in this conversation because of the need for students to develop specialized information skills in their majors. While some information skills are generic and transferable, students should develop more sophisticated skills in areas of particular relevance to their major area of study. For example, history majors should work closely with primary sources (in special collections or born digital collections) and science majors should develop some expertise with accessing and managing large data sets. Conversations between librarians and disciplinary faculty are essential for developing a robust information literacy program that is integrated into the academic work of students.
While it is likely that librarians will convene campus conversations about information literacy, they should seek institutional partners who have a particular interest in pedagogy, information technology, and assessment. Individuals from a campus center for teaching and learning, an undergraduate education office, or a student success office can inform discussions about innovations in curricula within the institution, can assist with understanding local teaching and learning trends (for example, are more departments experimenting with blended learning or the “flipped classroom”), and can help librarians focus on pedagogical objectives that are important to the broader institution. They may also provide liaison with specific programs that could benefit from an infusion of information literacy content.

The role that academic computing professionals play in teaching and learning varies greatly from institution to institution. Understanding where there are opportunities for collaboration with these professionals, whether in a central information technology unit or embedded in colleges or departments, is important for developing a holistic information literacy program. For example, in some institutions, computing professionals have taken the lead in assisting faculty with developing new kinds of multimedia assignments for courses and for implementing workshops and other services for students involved in multimedia production. This Framework views the integration of accessing information and developing new types of information products as a holistic process and realizing this concept may involve developing new partnerships between and among information technology professionals, librarians, and faculty.

As institutional teams rethink their implementation of an information literacy program in the context of this Framework, they should be developing an assessment plan that will provide evidence of the impact and outcomes of a new program. Working with assessment professionals on campus, whether in an assessment office, undergraduate education office, student success program, or planning office, can provide the expertise needed to develop robust assessment instruments. In addition, the information literacy program may be able to embed some of its data collection into existing campus instruments or correlate some of its data with other sources of data being collected by others.

Librarians have the opportunity to play the leading role in bringing together partners and stakeholders to shape information literacy initiatives on campus. Even within libraries, at times the silos of departments and roles isolate librarians who could be working together to develop new focuses for information literacy. For example, librarians whose specialty is “big data” can partner with information literacy librarians along with disciplinary faculty to shape new initiatives to develop students’ skills in this area. Librarians on many campuses have reached out to faculty to encourage their interest in information literacy. With this Framework, the intent is for librarians to launch conversations that focus on curricular needs and the information access, management, and production needs of students within that context.
Endnotes


Appendix 2

Introduction for Faculty and Administrators

Refocusing the Current Standards: Creating a Framework

Changes in higher education, coupled with a more complex information ecosystem than existed at the end of the last century, demand new engagement with the concept of information literacy. 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 now time for a fresh look at information literacy. An ACRL Task Force has developed a new Framework for Information Literacy for Higher Education. 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 creativity and participation, highlighting the importance of their contributions. The proposed Framework seeks to address the great potential for information literacy as a deeper, more integrated learning agenda, focused on academic courses, undergraduate research, service learning, digital projects showcasing student research, and through other initiatives at local institutions that span the formal academic and co-curricular and field learning experiences of novices (first-year students), students in undergraduate majors, as well as graduate and professional students. In the proposed Framework, we hope to provide spaces for creative, integrative, flexible thinking about the dynamic information ecosystem in which all students live, study, and work.

The Framework is developed around a set of threshold concepts, which are those challenging 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 (Abilities) section that is used to demonstrate how the mastery of the threshold concept leads to new knowledge and the ability to engage in the described practices. Each concept also includes a set of dispositions, which addresses the affective areas of learning. In addition, each threshold concept includes a selection of activities that can be used as, or inspire, assignments or assessments.

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 create conditions for more collaboration, more
innovative course designs, more action research focused on information literacy, 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 co-curricular projects, should offer great potential for
curricular transformation. Faculty can:

- Investigate threshold concepts in your discipline and gain an understanding of the
  approach used in the Framework in the discipline you know
  o What are the specialized information skills in your discipline that students
    should develop such as using primary sources (History) 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
  o What information and research should students be accessing outside of
    class to arrive prepared to apply concepts and experiment on collaborative
    projects?
- Partner with IT and librarians to develop new kinds of multimedia assignments
  for courses.
  o What kinds of workshops and other services should be available for
    students involved in multimedia production?
- Help students view themselves as information producers, both individually and
  collaboratively
  o In your courses and academic program, how do students both produce and
    consume information content in a variety of formats and modes? How do
    they interact with, evaluate, and share information effectively and
    flexibly?
- Consider the Dispositions, Self-Assessments, and Assignments in each
  information literacy threshold concept for possible integration into your own
  courses and academic program
  o How might you and a librarian design learning experiences that will
    encourage students to assess their own attitudes, strengths/weaknesses,
    and knowledge gaps related to information and how might you
    collaboratively design assignments for your courses?

For Administrators: How to Use the Framework

The Framework differs substantially from the ACRL Information Literacy Competency
Standards for Higher Education; it is a genuinely new model. Through reading the
Framework document and discussing the new model with librarians in your institution,
administrators can begin to focus on the best mechanisms to implement the Framework
in their institution. Administrators can:

- Host or encourage a series of campus conversations about how the institution can
  incorporate 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.
• Promote partnerships between faculty, librarians, instructional technologists, information technologists, and others to develop meaningful ways for students to become digital content creators, especially in their disciplines.

• Provide resources to encourage assessment of information literacy of students at various levels at your institution.
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 August 2014), the Task Force will include a set of recommendations for the Board’s consideration. While that document is not yet written, we want to share our intentions with readers of this draft.

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 x# 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 x# 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

(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, 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).

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.