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Information literacy and higher education

A toolkit for curricular integration

To achieve a sustained and significant impact, information literacy cannot be addressed only by librarians or only in isolated experiences. Instead, we need a holistic approach through which invested campus partners come together and advocate for the importance of information literacy and accept shared responsibility in it.

Integrating information literacy across curricula is an opportunity and a challenge for which librarians are well-poised to lead campus colleagues and other stakeholders, facilitating engagement with the issue.

The goal of this article is to guide readers to important resources for understanding information literacy and to provide tools for readers to advocate for information literacy's place in higher education curricula.

Definitions and standards

• **Information Literacy Competency Standards for Higher Education (ACRL).** ACRL's five standards form the fundamental foundation upon which most conceptions and applications of information literacy in higher education are built. Each standard includes affiliated performance indicators and outcomes. This site also helps to clarify information literacy vs. information technology, advocate for curricular integration, and more. *Access:* http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm.

• **Jeremy J. Shapiro and Shelley K. Hughes, "Information Literacy as a Liberal Art: Enlightenment Proposals for a New Curriculum"** *Educom Review,* **vol. 31, no. 2 (1996).** In their article, Shapiro and Hughes call for an expanded interpretation of information literacy and the goals for its attainment, prioritizing adaptability, critical thinking, and responsible citizenship. "Information Literacy as a Liberal Art" extends and broadens the ACRL Standards with seven dimensions of information literacy. *Access:* http://net.educause.edu/apps/er/review/reviewarticles/31231.html.

• **Seven Faces of Information Literacy in Higher Education (Christine Bruce).** Bruce defines information literacy in a relational model as contextually based experiences. This site summarizes each of the seven faces defining how information literacy is experienced (e.g., information process, information control, knowledge construction, knowledge extension). Bruce's 1997 book *Seven Faces of Information Literacy* explores the model in greater detail. *Access:* http://sky.fit.qut.edu.au/~bruce/il/faces.jsp.

• **Seven Pillars of Information Literacy (Society of College, National and University Libraries).** SCONUL conflated "information skills" and "information technology skills" to define seven information literacy skills. The seven pillars (e.g., locate and access, compare and evaluate, organize and apply, etc.) are presented in an iterative model, highlighting the need for practice and application of these skills to develop expertise. *Access:* http://www.sconul.ac.uk/groups/information_literacy/seven_pillars.html.

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Curricular models and approaches

Information literacy can be incorporated into the curriculum in any number of ways. Each institution's unique mission, culture, and needs call for a tailored approach. The following sites are a sample of options and applications, illustrating some institutions' experiences with information literacy.

Comprehensive information literacy plans

• **Information Literacy Across the Curriculum Action Plan (College of DuPage).** This action plan, designed by a team of librarians and interdisciplinary faculty, presents a comprehensive investigation of information literacy across the curriculum programs, a proposal for re-envisioning the college's own program, and the opportunities and challenges in so doing. *Access:* http://www.cod.edu/library/services/faculty/infolit/actionplan.pdf.

• **Plan for Information Literacy at the University of Rhode Island (URI).** This plan concisely brings together URI's information literacy mission statement and its place in the broader campus mission and vision. URI articulates its strategy for an incremental information literacy implementation across the curriculum via a combination of required entry-level courses or for-credit library courses, course-related library instruction in the major, capstone projects, and more. *Access:* http://www.uri.edu/library/instruction_services/infolitplan.html.

Course-integrated library instruction

• **Library Instruction Program (University of Massachusetts Boston).** Many libraries offer custom, course-specific library instruction sessions to develop students' research abilities, meet course/assignment requirements, and to advance information literacy goals. On this site, the University of Massachusetts-Boston advertises their library instruction program. *Access:* http://www.lib.umb.edu/node/1489.

Discipline-specific information literacy

• **Discipline-Based Information Literacy (Carleton College).** Funded by a three-year Mellon grant, Carleton worked to integrate information literacy into the curriculum, focusing on the major. Participating departments included Classics, Economics, English, Geology, and History. These sites provide an overview of the grant and its outcomes, along with more detailed reports by department, as well as the documents from a presentation made to the Minnesota Library Association. *Access:* http://apps.carleton.edu/campus/library/about/infolit/mellon/ for the grant overview and departmental reports. *Access:* http://apps.carleton.edu/campus/library/about/infolit/mellon_present/ for presentation materials.

• **Information Literacy and Instruction: Information Literacy Standards by Discipline (ACRL).** Some ACRL sections and task forces have created information literacy standards/research competency guidelines specific to particular disciplines. This site details the ACRL Information Literacy Competency Standards adapted expressly for Science and Engineering/Technology, Anthropology and Sociology, Literatures in English, Political Science, and Psychology. *Access:* http://www.ala.org/ala/mgrps/divs/acrl/standards/infolit.cfm.

Embedded librarianship

• **Kaijsa Calkins and Cassandra Kvenild, "Embedding in the 21st Century Academy: Crossing Curriculum and Geography" World Library and Information Congress: 76th IFLA General Conference and Assembly, Session no. 74 (2010).** This article details the University of Wyoming Libraries' embedded librarian initiatives in the areas of reference, instruction, assessment, and more for both on-campus and distance learners. *Access:* http://www.ifla.org/files/hq/papers/ifla76/74-calkins-en.pdf.

First-year experience

• **The First-Year Experience and Academic Libraries: A Select, Annotated Bibliography (ACRL).** Maintained by the ACRL Instruction Section's Teaching Methods Committee, this selected bibliography compiles literature on the topic of information literacy

instruction in the first-year student's experience. The works cited cover a variety of topics, including strategies for integration, pedagogy, outreach, assessment, and more. *Access:* http://www.ala.org/ala/mgrps/divs/acrl/about/sections/is/projpubs/tmcfyebib.cfm.

• **General Education Program—Cluster One: Skills for the 21st Century (James Madison University).** JMU integrates information literacy into the first-year experience in a three-part course cluster focusing on reasoning, writing, and oral communication. *Access:* http://www.jmu.edu/gened/cluster1.shtml.

Assignment design

Whether or not information literacy is expressly outlined in the curriculum, individual assignments can be adapted or enhanced to better promote information literacy goals, to clarify expectations of students, and to better facilitate students' development. In a recent Project Information Literacy study, researchers analyzed undergraduate course-related research assignment handouts and found that few advised students on the research process, recommended research resources, or suggested avenues for seeking assistance. Instead, most focused simply on the how-to mechanics of the assignment. The following sites can supply ideas for assignments to share with faculty, as well as provide inspiration for pages appropriate for your own institution.

• **Designing Meaningful Library Assignments (Concordia University).** This site succinctly presents guidelines for designing effective assignments, providing direction on: assignment purpose, student assumptions, sample assignments, and more. *Access:* http://library.concordia.ca/services/users/faculty/infolit/infolit-assign.php.

• **Information Literacy for Teaching and Learning: A Workshop for Faculty and Librarians (James Madison University).** JMU faculty from a wide variety of departments developed information literacy assignments as part of a workshop. This site compiles their assignments, as well as their evaluation of the assignments after their implementation. *Access:* http://www.lib.jmu.edu/instruction/2006assignments.aspx

• **Integrating Information Literacy into Course Assignments (Gettysburg College).** This site provides interdisciplinary assignment ideas organized by goal. Some disciplinary assignment ideas are also included. *Access:* http://www.gettysburg.edu/library/information/departments/reference/instruction/assignments.dot.

• **Using the Library in Your Courses—And How Librarians Can Help (Gustavus Adolphus College).** This site contextualizes suggestions for assignment design by first discussing the (overwhelming nature of the) library and research assignments from the students' perspective. A variety of sample assignments from faculty are included, as well as general introductory library exercises. *Access:* http://gustavus.edu/library/instructionprogram.html.

Assessment

Information literacy assessment can take a variety of shapes and sizes. Effective assessment can help to understand students' abilities and perceptions, measure the effectiveness of practices, develop criteria and standards, inform change, and more. These sites include links to assessment tools and examples, as well as theory and guidance on implementing assessment.

• **Assessments of Information Literacy.** This resource list compiles links to multiple-choice tests, authentic assessments, blended assessments, and rubrics. *Access:* http://jonathan.mueller.faculty.noctrl.edu/infolitassessments.htm.

Assessment planning

• **Publications (Megan Oakleaf).** Assistant Professor at Syracuse University's iSchool, Oakleaf publishes and presents frequently on assessment. This site links to the full-text of

her publications, including many on information literacy assessment planning. See, for example, "Writing Information Literacy Assessment Plans: A Guide to Best Practice" *(Communications in Information Literacy,* vol. 3, no. 2, 2010); "The Information Literacy Instruction Assessment Cycle: A Guide for Increasing Student Learning and Improving Librarian Instructional Skills" *(Journal of Documentation,* vol. 65, no. 4, 2009); "Guiding Questions for Assessing Information Literacy in Higher Education" *(portal: Libraries and the Academy,* vol. 9, no. 2, 2009); and "Dangers and Opportunities: A Conceptual Map of Information Literacy Assessment Tools" *(portal: Libraries and the Academy,* vol. 8, no. 3, 2008). *Access:* http://meganoakleaf.info/publications.html.

In-class assessment

• **Instruction Clearinghouse Initiative (Virginia Tech).** This site from Virginia Tech compiles tools and approaches for student- and teacher-centered assessment of library instruction sessions. Advantages and disadvantages of each assessment method are also briefly presented. *Access:* http://www.lib.vt.edu/RIS/clearinghouse/assessments.html.

• **Library Instruction Assessment (Utah State University).** Utah State University uses short surveys to assess students' perceptions of library instruction sessions and their effectiveness (see One-Minute Assessments and Surveys section). This site also includes teaching evaluation forms and pre- and post-assessments. *Access:* http://library.usu.edu/instruct/assessment/index.php.

• **Searching for Empirical Articles (Georgia State University).** Short surveys like this one from Georgia State University can measure students' mastery of specific concepts and skills covered in a library instruction session. In this assessment, students are tested on their ability to define and find empirical articles. (Linked via course library guide: http://research.library.gsu.edu/SWCJ3020.) *Access:* http://www.zoomerang.com/Survey/WEB22AT77UE8FA.

• **Suzanne Julian and Kimball Benson, "Clicking Your Way to Library Instruction Assessment: Using a Personal Response System at Brigham Young University"** *C&RL News,* **vol. 69, no. 5 (2008).** In this article, Julian and Benson describe their use of clickers in library instruction sessions to assess students' understanding of concepts and skills, as well as their attitudes and self-evaluation. The authors describe how the clickers not only reveal useful information about information literacy, but also make for an engaging class. *Access:* http://crln.acrl.org/content/69/5/258.full.pdf+html.

Individual assessment projects

• Research Skills Assessment (Lehigh University). A team of Lehigh University librarians developed their own information literacy measure to assess basic skills. *Access:* http://www.lehigh.edu/library/infolit/faculty/rsabackground.html.

Multi-institutional standardized assessment projects

• **iCritical Thinking.** Administered by ETS, iCritical Thinking replaces the iSkills test. This scenario-based assessment measures critical thinking and the test taker's ability to gather information and make decisions in a digital environment. The assessment is used in education and work settings. *Access:* http://www.ets.org/icriticalthinking/about.

• **Information Literacy Test.** Developed by James Madison University, this multiple-choice assessment is based on the ACRL Information Literacy Competency Standards for Higher Education. *Access:* http://www.madisonassessment.com/assessment-testing/information-literacy-test/.

• **Project Sails.** The Project for Standardized Assessment of Information Literacy Skills, developed by Kent State University and now managed by the Association of Research Libraries, is an online assessment tool aligned with the ACRL Information Literacy Competency Standards for Higher Education. *Access:* https://www.projectsails.org/.

• **Research Practices Survey.** Originally known as the First Year Information Literacy in the Liberal Arts Assessment (FYILLAA), the Research Practices Survey was developed by a group of eight colleges and universities with support from the National Institute for Technology in Liberal Education (NITLE). Now managed by the Higher Education Data Sharing (HEDS) Consortium, this online multiple-choice survey assesses students': experiences with research, attitudes and beliefs about research, familiarity with research terms and strategies, and approaches to evaluating sources. *Access:* http://www.stolaf.edu /offices/ir-e/assessment/projects/FYILLAA /FYILLAAdescription.html for background on the development of the FYILLAA. *Access:* http://www.e-heds.org/Uploads /file/UnitRecord%20Surveys/RPS _SurveyInstrument2010.pdf for the current version of the Research Practices Survey from HEDS

Information literacy toolkits

If "developing lifelong learners is central to the mission of higher education institutions," then information literacy is not just the purview of librarians, but instead is a collaborative responsibility of librarians, faculty, administrators, and students.

The following sites are examples of the kinds of information literacy toolkits or portals some institutions make available to inform and support these stakeholders.

• **Information Literacy Toolkit for Librarians (University of Minnesota).** Intended to support campus librarians, this toolkit gathers information on pedagogy and instructional design, talking points for working with faculty, lesson plans, standards, and more. *Access:* https://wiki.lib.umn.edu /AP/InformationLiteracyToolkit.

• **University Library Information Literacy Portal (University of Illinois Urbana-Champaign).** This toolkit engages librarians,

faculty, and students with information geared toward each group. *Access:* http://www. library.illinois.edu/infolit/.

Current awareness and continuing education

• **Communications in Information Literacy.** CIL is an independent, open-access, refereed journal focused on information literacy theory and research, specifically in higher education. *Access:* http://www. comminfolit.org/.

• **ILI-L (Information Literacy Instruction Discussion List).** Sponsored by the ACRL Instruction Section, ILI-L is an electronic list dedicated to discussion of information literacy and instruction. *Access:* http://www.ala.org /ala/mgrps/divs/acrl/about/sections/is/ilil.cfm.

• **Information Literacy (ACRL).** This site from the ACRL Information Literacy Coordinating Committee is a gateway to information on standards and their application; resources for collaboration, pedagogy, and assessment; professional development and continuing education; and more. Find, for example, links to schools' information literacy programs, guidelines for instruction programs, and proficiencies for instructional librarians. *Access:* http://www.ala.org/ala/mgrps/divs /acrl/issues/infolit/index.cfm.

• **Information Literacy Weblog.** Sheila Webber, senior lecturer at the University of Sheffield (United Kingdom) Information School, writes about information literacy events, news, research and more, from around the world. *Access:* http://information-literacy. blogspot.com/.

• **LOEX.** LOEX publishes a quarterly journal and a current awareness newsletter, holds annual conferences, and serves as a nonprofit clearinghouse for information literacy and library instruction information. *Access:* http:// www.emich.edu/public/loex/loex.html. ✏