Annotated Bibliography:

Multiple Literacies, Multiple Modes of Teaching and Learning

Critical Analysis and Digital Literacy Engagement (CANDLE) Initiative

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This annotated bibliography explores scholarship in three areas: metaliteracy; other emerging literacies (primary source literacy and visual literacy); and online information literacy instruction. These areas are related both to the charge of the Critical Analysis and Digital Literacy Engagement (CANDLE) Initiative and to the literacies supported by the Initiative team members who composed the bibliography, as examples of the University Libraries’ interest in multimodal literacies beyond traditional face-to-face information literacy instruction.

**Annotated Bibliography**

**From Information Literacy to Metaliteracy**


The authors argue in this article that the first draft of the *ACRL Framework for Information Literacy in Higher Education* (2014) better reflected the necessary paradigm shift that information literacy theory and pedagogy must undergo for students to be able to understand and fulfil “their roles as information creators and participants in research and scholarship,” and that the de-emphasis of threshold concepts, metaliteracy, and metacognition in the final draft of the *Framework* (2015) “resulted in the diminishment of the *Framework*’s usefulness as a teaching tool” (21). Fulkerson, Ariew, and Jacobson examine the initial emergence of the concept of metaliteracy in Jacobson & Mackey’s
work (2011, 2013) in the context of a fieldwide acknowledgment that the ACRL Information Literacy Competency Standards for Higher Education (2000) were no longer sufficient in describing the dispositions and practices students needed to develop to fully participate in a new, social information climate: “Metaliteracy provides an overarching and unifying framework that builds on the core information literacy competencies while addressing the revolutionary changes in how learners communicate, create, and distribute information and participatory environments” (Jacobson & Mackey, 2013, p. 84).

Metaliteracy, as a framework, consists of four learning domains--cognitive, behavioral, affective, and metacognitive--the last of which the final draft of the Framework cites as a major influence: “This Framework depends on these core ideas of metaliteracy, with special focus on metacognition, or critical self-reflection, as crucial to becoming more self-directed in that rapidly changing ecosystem” (2015). However, in response to early critical feedback about the concepts and their utility in an information literacy framework, the final draft of the Framework removed explicit ways in which metaliteracy, and metacognition in particular, could be addressed in library instruction by practitioners. While much of the critical feedback characterized metaliteracy as an amorphous concept too theory-based to be understandable to students or faculty, removing many of the references to metaliteracy while citing it as an influence had the effect of leaving librarians unfamiliar with metaliteracy and metacognition. This omission left many librarians feeling a bit adrift about how to incorporate these ideas into their teaching. The authors conclude by expressing their hope that the ACRL Framework for Information Literacy Sandbox repository for librarians can serve to share assignments
and activities that “reflect best practices related to metaliteracy and metacognition” and provide practitioners with “a clear connection between theory and practice” (37).


In this article, Juskiewicz and Cote outline the history of information literacy instruction for undergraduate students in academic libraries and situate metaliteracy as the most recent concept that has influenced librarians’ understanding of information literacy, arguing that “the influence of metaliteracy upon the new ACRL Framework cannot be understated” (12). Juskiewicz and Cote note that the metaliteracy scholarship of Mackey and Jacobson (2010) is founded on the recognition of “parallels between information literacy and similar educational programs arising in other disciplines, such as visual and media literacy instruction in the field of communication” (12), as well as the need to acknowledge and integrate strategies for addressing the ubiquity of mobile devices and social media in student information use. According to the authors, one of the major contributions of Mackey and Jacobson’s scholarship to the *ACRL Framework for Information Literacy* (2015) is in shifting the focus on students as merely consumers of information to seeing them as active content creators. An important issue raised by the authors is the difficulties faced by libraries is assessment of library information literacy instruction programs, as well as their impact on student learning)given the expanded and sometimes nebulous focus of newer information literacy frameworks that lack clearly defined student learning outcomes). The authors cite scholars such as Barbara Fister who
argue that librarianship, as a field, has so far failed at demonstrating that information literacy instruction in any form positively impacts student learning, and that this can stymie the work of academic libraries in the context of institutional assessment pressures and mandates from accrediting agencies. They conclude their discussion by posing the question: is the solution for academic libraries and librarians to step back from instruction and ownership of information literacy to students and faculty--as suggested by Susan Cowan (2014)--and refocus our efforts elsewhere?


This short position paper is where Mackey and Jacobson introduced the idea of constructing information literacy as “a metaliteracy” for related literacies, which means re-conceptualizing information literacy as “an overarching, self-referential, and comprehensive framework for related models” (1)--including digital literacy, media literacy, ICT literacy, visual literacy, cyberliteracy, critical literacy, health literacy, and information fluency. The setting for this new way of seeing information literacy is the shift in the Internet as a static place of information consumption to “an active social network for people to create and share information in collaboration with each other” (1) beginning with the widespread availability of social networks and other “Web 2.0” technologies. Mackey and Jacobson explain that information literacy works as a metaliteracy because “most of the characteristics identified with information literacy are
present in other literacy models” (1); they outline how other literacies all include the need for individuals to be able to, in some form, access, understand, organize, use, or create information. Notably, Mackey and Jacobson define “information fluency” as “a response to information literacy but with particular emphasis on gaining competencies to continuously adapt to new technologies” but argue that, ultimately, that is already a part of information literacy (2). The authors argue that their model for seeing information literacy as a metaliteracy is different than combining information literacy with other distinct literacy frameworks, such as data literacy, visual literacy, or digital literacy, to form in an integrated approach to literacy. Rather, information literacy “provides the fundamental knowledge set that informs related literacy models” (3).


This article restates much of the authors’ argument from their previous position paper, but departs from it in one significant way: where previously the authors referred to information literacy as “a metaliteracy,” with the term metaliteracy describing an overarching framework for other related literacy models (with their argument being that we should see information literacy that way), they now often refer to “metaliteracy” (no indefinite article) as its own concept and framework. For example, they write, “Metaliteracy promotes critical thinking and collaboration in a digital age, providing the comprehensive framework to effectively participate in social media and online communities” (62) and “Metaliteracy expands the scope of information literacy as more than a set of discrete skills, challenging us to rethink information literacy as active
knowledge production and distribution in collaborative online environments” (64). Of note to this task force is also the explanation that information literacy and information fluency, as conceived in the document that originated the concept of information fluency, *Being Fluent with Information Technology* (1999), are “interrelated but quite distinct” (Committee on Information Technology Literacy 49). *Being Fluent* defines information fluency as “a set of intellectual capabilities, conceptual knowledge associated with information technology” (49), whereas information literacy describes critical thinking practices that may involve technology, but are ultimately independent of them.

Additionally, a metaliteracy approach “looks at the foundation principles that united information and technology, rather than focusing on discrete skills, distinct technologies, or media formats” (70). In the rest of the article, Mackey and Jacobson outline and expand upon the tenets of metaliteracy in practice as being “understand[ing] format type and delivery mode,” “evaluat[ing] user feedback as active researcher,” “creat[ing] a context for user-generated information,” “evaluat[ing] dynamic content critically,” “produc[ing] original content in multiple media formats,” “understand[ing] personal privacy, information ethics, and intellectual property issues,” and “shar[ing] information in participatory environments”--all ideas that had a major influence on the *Framework for Information Literacy in Higher Education* (2015).


In this study, the authors frame teaching information literacy as it relates to social media as a way to put metaliteracy in practice in the context of designing and leading a course
called Rhetoric and Social Media in the spring 2011 semester. The authors discuss the connections between their definition of metaliteracy (or, at that point “meta-literacy”) in “Information Literacy on Facebook: An Analysis” (2012) and the definition of metaliteracy constructed by Mackey and Jacobson in 2010 and 2011. Witek and Grettano’s initial definition of metaliteracy focused on “information literacy in the age of social media” and the relationship between digital technology, content creation, and critical awareness of their own information behavior; the meta in this definition is from metacognition. Mackey and Jacobson’s definition of metaliteracy, as explained by Witek and Grettano, is an overarching and self-referential set of competencies for information literacy that include producing and sharing information alongside the traditional information literacy competencies for understanding, finding, evaluating, and using information; the meta here is in the epistemological sense of being “about” the concept itself--a literacy about literacy. Both definitions were prompted by the shift to a “social and decentralized,” participatory information environment with the onset of Web 2.0, and social media in particular, impacting information-seeking behaviors and processes. Witek and Grettano in particular argue, “Students’ ability to navigate and act purposefully within this environment depends on information literacy instructors’ ability to teach it, and the first step toward developing this ability is to be aware that the shift is taking place” (206). For the study itself, the authors analyzed data from student work in the writing-intensive Social Media and Rhetoric course, and presented four themes from their findings mapped to related standards from the ACRL Information Competency Standards for Information Literacy (2000) and the metalinguistic competencies outlined by Mackey
and Jacobson (2011). These themes are: information now comes to users; information recall and attribution are now social; evaluation is now social; and information is now open. Also published before the *ACRL Framework* (2015), the authors conclude that future information literacy instruction will need to prompt students to develop “a meta-awareness of why they do what they do with information” that can “be applied to all research contexts” (205).

**Primary Source Literacy & Instruction**


This article provides a case study of how archivists worked with a history faculty member to redesign an American history survey course to better incorporate primary source literacy into its learning goals. At the core of the collaboration was the development of weekly history “labs” in which students worked with primary documents in an actual archival setting. Through these labs, students gained a better understanding of archival concepts and practices, document analysis, document selection in shaping a narrative, and archival access tools.


This article provides context for the discussion of information literacy as it relates to primary sources. Carini offers the reader a quick scan of the discussion of information literacy within the archival field. The author examines a discussion of how the ACRL Standards provided little assistance to archivists and special collections
librarians in terms of primary sources. While the ACRL Standards did talk about context, it did not talk about historical context. So, beginning in 2003 with an influential article by Elizabeth Yankel and Deborah Torres in the *American Archivist*, there was a call for the establishment of standards to outline archival literacy and primary source literacy. Carini argues that this literacy would embody critical thinking, the creation of a narrative, and the editorial process of shaping a historical narrative. The article provides a proposed framework of primary source learning outcomes which are situated within the following areas: know, interpret, evaluate, use, access, and follow ethical principles. Just as the ACRL Standards helped librarians engage faculty and show their value as information specialist, Carini argues that primary source standards would have a similar impact for archivists. Primary source literacy standards would help archivists establish clear outcomes and fit this type of instruction into a broader curriculum.

Hensley, M., Murphy, B., & Swain, E. (2014). Analyzing archival intelligence: A collaboration between library instruction and archives. *Communications in Information Literacy, 8*(1), 96-114.

This is a study of an instructional program in the University Archives at the University of Illinois. The program is called Student Life and Culture Archival Program and it was intended to develop a student’s analytical research skills through hands-on research opportunities using primary sources. The program has students using three to four primary sources drawn from the archive to answer a research question and shape a narrative drawing on these sources. While the program was very popular and
well-funded, there were real concerns with how the students were learning and understanding the archival research experience. Partnering with instructional librarians, archivists sought to devise a set of standards and markers to assess the program. To better understand the student experience, a 2012 study was conducted that assessed specific learning goals. The study interviewed students about their overall experience in the archive. The study found that students were struggling with archival research in such areas as: specialized language and reading room rules. Some students were uneasy in relying on archivists to pull materials for them. Students were also confused about the relationship between finding aids and the actual collections. The study concluded that in many instances a “one-shot” instructional class is going to fully prepare the student to conduct research. The case study discussed the need to work with faculty about crafting curriculum and instructional sessions to prepare students for the archive and the research assignment. Additionally, the case study discussed the need for defining terms and articulating a clear set of standards for faculty and students to understand and archivists to employ.


Upon its release in 2012, this edited work had an immediate impact on the archival field. For many archivists, this volume represented the evidence of a profound shift in how archives viewed their role and value within an academic library setting. Moreover, this embrace of instruction was happening simultaneously at large and small libraries.
Archives were no longer focused just on research and the occasional one-shot instructional tour of holdings. Rather, academic archives had the staff and collections to build instructional programs. Drawing on the work of forty-seven US repositories, this volume provided detailed case studies of successful instructional programs and teaching models. These case studies also give the reader some insight into an important moment when archivists are struggling with a common set of terms, concepts, and learning goals.


*Teaching with Primary Sources* is part of the Society of American Archivists’ “Trends in Archives Practice” series. Written by active practitioners in the field, the work provides a practical and hands-on approach to integrate primary source literacy into curricula and teaching practices. The work is well organized and easily accessible with a solid bibliography. The first chapter/module places archival literacy into a broad context that considers developments within the profession (instruction, outreach, and advocacy). The authors provide a brief discussion of how academic archives have sought to better align themselves with the mission of their larger institution. They note the trend to move outside of the archive and be more external facing. Furthermore, it tracks archival literacy and primary source literacy within the broader educational environment. The author's point to Samuel Wineburg’s influential 2001 Book, *Historical Thinking and Other Unnatural Acts*, as the catalyst to reconsider historical thinking and the teaching of history. Finally, the authors discuss in some detail how Standards are relating to archival and primary source literacies. The discussion of “standards” includes: the
SAA-ACRL/RBMS Joint Task Force, ACRL Framework for Information Literacy, American Association of School Librarians’ Standards for the 21st Century Learner, the American Historical Association’s AHA History Tuning Project, the National Council for the Social Studies’ standards, and the Common Core State Standards. The second chapter/module begins by offering a short history of archival literacy and a discussion of why archivists teach. Drawing on sixteen case studies of librarians, archivists, and educators using archival resources in instruction, the module focuses on the development of instructional programs, establishing or broadening partnerships with faculty, and considering levels of instructional involvement. The module provides a nice range of instructional lesson plans with a heavy emphasis on digital collections and digital humanities. The final chapter/module provides a series of case studies that provide the reader with strategies to connect students with primary sources. The authors’ discussion of the selection of materials for instruction is very revealing on how archivists try to balance the need for context with the danger of overwhelming the student with too much material.


This article examines ways archivists can strengthen ties with fellow librarians and faculty. While acknowledging that they all strive to support the same education mission, the authors note that archivists are still struggling to tell their story. They believe there exists a conceptual gap of understanding. This gap of understanding is largely of their own making. Reflecting on past attempts to explain their approach to instruction, the
archivists noted that they spent far too much time explaining their unique holdings. Moreover, the authors also noted that archivists have not done a very good job in explaining the benefits of working with actual items versus digital surrogates. Thus, the authors considered effective strategies to speak to their colleagues about instruction. For example, archivists who are seeking to collaborate with librarians should begin the conversation with program or activity based examples. The article also provides some concrete ways that archivists and librarians can collaborate in instructional sessions and in the promotions of each other’s resources and services. At the same time, the authors note that the differences between the teaching units should be embraced and seen as a library strength.


Vong’s adoption of a constructivist approach in her instruction sessions at the University of Toronto has sparked a discussion of effective ways to scaffold archival concepts and context. Vong’s article has also served as an entry point for many archivists to be introduced to constructivist concepts, methods, and key learning goals.


This article is the second in a series of articles documenting efforts to establish archival literacy competencies for undergraduate history majors based on input from faculty, archivists, and librarians. The resulting list includes both basic and advanced skills.
recommended for 17 undergraduate history majors across a variety of skill sets, including identifying and locating sources, incorporating sources into research, obtaining guidance from archivists, demonstrating acculturation to archives, and ethically using information obtained from sources.

Visual Literacy & Instruction


This article serves as a primer on visual literacy as a concept for academic librarians, as well as a call for academic libraries to participate in and influence the dialog on student visual literacy learning, along with other areas such as scholarly communication, open access publishing, digital humanities, and data curation. Key to the authors’ definition of visual literacy is a student’s ability to both “analyze and produce visual materials” (63). While finding images, evaluating images as sources of information, and using images ethically all fall within the traditional wheelhouse of information literacy instruction, the authors note that librarians may be less accustomed to teaching students how to interpret, analyze, and produce visual concepts. However, they argue, these latter skills fit well into academic libraries’ “expanding role in supporting a broad spectrum of student literacies” (62). Of utility to this task force in particular is the authors’ discussion of visual literacy within the context of “a broader set of literacies perceived as critical for contemporary learners” (64); “21st century literacy,” “multimodal literacy,” “transliteracy,” “integrated literacies,” and “metaliteracy” are all terms mentioned or discussed. The authors define
metaliteracy as stressing “the similarities and connections between different literacies, emphasizing higher order thinking and collaborative knowledge production over skill development,” with visual literacy representing just one of the “multiple interconnected literacies in a metaliteracy framework” (64). One of the more significant issues the authors highlight is the disconnect between student visual competency and faculty expectations and norms concerning academic image use, particular with regard existing student social media practices concerning images. Students lack the technical and cognitive skills necessary to express arguments and concepts visually, evaluating and interpreting visual (as opposed to textual information), and are not informed about rights or restrictions of copyright concerning images and how that impacts their ethical use in student work. Like other literacy practices and dispositions, “visual literacy must be a focus of instruction, not an assumed attribute” (68) of students by either disciplinary faculty or librarians. The majority of the article is spent examining each competency of the ACRL Visual Literacy Standards (2011), as well as their connection to other frameworks such as the ACRL Information Literacy Competency Standards (2000, rescinded by the ACRL Board of Directors in 2016).


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This case study from librarians at Emporia State University describes classroom activities that combine competencies from the ACRL Information Literacy Standards (2000) and
ACRL Visual Literacy Standards (2011) to allow students to practice “metaliteracy skills.” In one activity, students in a for-credit information literacy course used an iOS app, Comic Life, to create comics to “tell their own stor[ies] about how they understand information literacy concepts” (4). In the other activity, students in a one-shot information literacy instruction session for a First-Year Seminar used the same app to collectively create a guide to library services and locations. Upson, Mudd, and Moffat’s article was included in this bibliography because it articulates a connection between the described activities and “metaliteracy skills,” first in the abstract (“These activities… allow them to demonstrate metaliteracy skills in an engaging and creative manner”) and later in the conclusion (“The increasingly loud call for visual literacy and metaliteracy skills, as well as digital content creation, has reverberated through many academic libraries,” 14). However, the construction of “metaliteracy skills” being used in combination with “visual literacy” and “digital content creation,” rather than a term that encompasses those other concepts (in line with Mackey and Jacobson’s original definition), shows that metaliteracy may be a term that is not well-understood or does not have a standard definition within the field of librarianship.

Online Information Literacy Instruction


https://doi.org/10.1080/1533290X.2016.1206788
This article is about a collaborative project (faculty, librarian, and instructional designer) implementing the TPACK (Technological Pedagogical Content Knowledge) framework and the *ACRL Framework for Information Literacy* (2015) in a general education, public speaking, online course at the University of Akron (urban public research university with student population of 25,000). The combining of the two frameworks is an example of collaborative metaliteracy (intersection of technology, content, and theory). In the past, the librarian conducted a one-shot, face-to-face instruction session on information literacy, including “introduction to library resources, identifying keywords for their topic, creating Boolean combinations and evaluating resources by using a rubric like the CRAAP test” (205). Due to time constraints and the large size of the course, students get access to materials through the LMS (by linking to course libguide in LMS), with no consults with the librarians. The authors of the article argue that in an online course the LMS is “more than a part of the course, it is the basis of the course, where content, pedagogy, and technology intersect” (205). So instead of creating a module to live in the online sections of this course (to replicate the one-shot model) the authors wanted to take a more integrative approach by designing a series of short lessons “to gradually introduce information literacy skills to the students and provide opportunities to practice the application of those skills” (206). Therefore information literacy was integrated with different aspects of the online course, including building in the frames into the course content, assignments, and discussions within the LMS.
Gonzales, B. M. (2014). Online tutorials and effective information literacy instruction for distance learners. *Journal of Library & Information Services in Distance Learning, 8*(1–2), 45–55. [https://doi.org/10.1080/1533290X.2014.898011](https://doi.org/10.1080/1533290X.2014.898011)

This review article “compare[s] information literacy sessions conducted in academic libraries to web-based tutorials created to deliver similar information literacy sessions in an online setting” (46). The authors concluded that many different methodologies were used when analyzing the effectiveness of online tutorials on information literacy, but most commonly a pre-test and a post-test were implemented. Overall, this review found that that most studies show that “online tutorials in library information literacy instruction” (46) is as effective, if not more effective, than face-to-face instruction. As universities add more online programs and academic librarians become busier, asynchronous, online tutorials allow libraries flexibility and broader reach with their instruction. Some studies of note included a 2005 study by Silver and Nick, which allowed students to choose between the online tutorials and classroom instruction; around 73% opted for online tutorials over face-to-face instruction, meaning that students might prefer the asynchronous nature of tutorials over class time with a librarian. Another reviewed study surveyed students, and then presented a recommendation for a blended or hybrid approach, where students can receive feedback if they need help or more information after taking the online tutorials. Some studies had feedback from students on bad design and no interaction, showing the importance of getting feedback from online students and incorporating interaction in tutorials. Another study of a hybrid approach versus asynchronous online LibGuide tutorial showed that the fully online tutorial
produced better results in the pre and post test; the reasoning for this is the online tutorial might provide flexibility to go back and adjust their research strategy throughout their research process. Areas of future study would be thinking more about the demographics of the students in the studies (for example, the review found that student age was not included in most studies) and if students follow up with a reference librarian for a consult after the tutorials or face-to-face instruction.


This paper covers the process of building a library information literacy two credit, 15 student, online course EDT 251, *Effective Use of Libraries* at Miami University Middletown. In the past, this course was taught by an English professor, but when he retired, it was handed over to two instruction librarians who overhauled the course. The demographics of Miami University Middletown is an average age of 25, with non-traditional students earning post-secondary education, certificates, or returning to higher education. The authors argue that the creating their information literacy course as an online course creates better flexibility for their student population and helps students learn about the online nature of research. The authors is this article cite a study showing “students in an online [library information literacy] course showed a significant increase in skills between their pre- and post-tests when compared to those who had received other instruction or no instruction at all” (392), which led them to create this course fully online (versus one-shot tutorial, hybrid, or face-to-face). This course was working off of the
2000 version of the ACRL Information Literacy Standards, so they created student learning outcomes to match these standards. To ease the transition, the librarians at first taught the course hybrid, and then transitioned to fully online.


“At Duquesne University, efforts have been made to reach adult learners in an accelerated program targeted to nontraditional students, much of which is provided online. This article will detail how theories of adult learning have helped the authors to create a multimodal approach to information literacy instruction online for adult learners in both undergraduate and graduate programs” (349). The librarians at Duquesne worked with online and face-to-face sections of an adult seminar, designed to facilitate the adult learner’s transition to college-level work; they built in a library component to the course. They created Blackboard (campus learning management system) discussions to share library resources; talked about Wikipedia, Google, and Google Scholar in the context of the library; met with non-traditional students on Saturdays; and created a webinar series. This work eventually led to a creation of an “Information Literacy for Adult Learners” online course. The two major assignments of this course were an annotated bibliography and an information need analysis and search.