

9 Reuniting Reading and Writing: Revisiting the Role of the Library

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As discussed in this book's overview, higher education in the U.S. has historically divided reading and writing instruction. This artificial partition between them has been easily sustained—in part because theorists have not adequately addressed how the two are connected, and in part because the academy's political structure reifies their bifurcation. Reading and writing, however, need to be integrated throughout the curriculum to support students' development of critical literacy.

In this chapter, I consider how an integrated information literacy and writing model provides a strong basis for critical literacy instruction, and further, how collaborations between librarians and disciplinary faculty supports the adoption of that model. For the development of my ideas on these issues, I am grateful to Miriam Laskin, Head of Instructional Services at Hostos Community College, and Scott Sheidlower, Head of Information Literacy at York College. Conversations with both helped me understand why compositionists need to take information literacy seriously in order to re-establish lost connections between reading and writing instruction.

To unpack the role information literacy plays in fostering critical literacy, I turn first to a brief history of academic libraries in the U.S. The following overview is necessarily reductive; however, an historical and contemporary portrait of the academic library is essential to understanding how its instructional goals intersect with those of compositionists.

FROM BIBLIOGRAPHIC INSTRUCTION TO INFORMATION LITERACY: CHANGING VIEWS OF THE LIBRARY

In the U.S., both the history of academic libraries and the history of disciplinary courses are linked to the nineteenth-century rise of the

modern university (Fister, 1995, p. 34; Russell, 2002, p. 21). Modeled after Germany's universities, the new institutions of higher education prized research, creating a need for textual resources. "Houses of knowledge" in a very literal sense, academic libraries were at the center of universities' intellectual activity, serving as communally shared spaces for investigation. Librarians, as overseers of rich repositories of print information, were arbiters and gatekeepers of social knowledge, determining, in cooperation with disciplinary faculty, texts belonging in the collection. Moreover, librarians archived and cataloged texts to facilitate scholarly access, often in ways that paralleled the specialized disciplinary divisions emerging in the modern university. Access, of course, was constrained by users' knowledge of the library's organizational systems. Library of Congress subject headings, for example, can both enable and prevent access to texts. Those who know how to use the taxonomy can locate sources efficiently; those who do not are hindered by their unfamiliarity with the system's language and syntax.

Fast forward to 2004. By that date, increased availability of consumer computers and mobile computing devices, coupled with the rise of the Internet and Web, had challenged information's material and spatial limitations. Alternative avenues of information dissemination, allowing information-seekers to circumvent the library as their primary access point for knowledge, threatened to squeeze libraries out of the academic information industry (think, for example, of course management systems, textbook-linked websites, Google search engines, Amazon and Google book searches, and online scholarly publications). A 2004 report from Outsell Inc., a research and advisory firm for the publication and information industries, even suggested the library was a defunct social institution: "The future of the library is that there is no library; the functions that the library performs have been blown up and are scattered throughout the universe" (as cited in Bell & Shank, 2004, p. 372).

Fast forward to 2011. Rather than marching happily toward their own extinction, however, academic libraries have been reinventing themselves. They have been diversifying the functionality of their physical spaces, with renewed attention to attractiveness and comfort. New group study and reading rooms at one of Ohio State University's libraries, for example, are also used for university receptions and events, turning the library into "the living room" of the campus. Yet, the new design has augmented rather than diminished the library's

intellectual function. After the library's eleven-story stack tower (formerly enclosed brick) was converted into a six-story, glass structure, the attractive, open design drew students toward the library's print resources, many of which cannot be accessed digitally. As Carol Diedrichs, the library director, puts it, "We like to talk about how everything is digital, but it's not entirely The marriage of study spaces with a prominent place for print is like being at the intellectual crossroads of our campus" (as cited in Carlson, 2010, *Quadruple the Visitors* section, para. 5). Libraries, no longer "the stodgy and stuffy repositories of years past" (Carlson, 2005, para. 7), are morphing into comfortable spaces, equipped with amenities such as good lighting, cafes, lounges, conference rooms, and study areas. In some cases, they are even changing their names, calling themselves, for example, "Information Commons," but are retaining their iconic identities as intellectual centers of learning (Carlson, 2005).

More important than spatial adaptations, however—at least regarding critical literacy—is libraries' increasing focus on information literacy education. Per the American Library Association (ALA) (1989), information literacy is defined as the ability to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (para. 3). The concept of information literacy developed in part as a response to new forms of information creation, dissemination, and reception. As information resources began shifting from the relatively controlled environment of the print-based library to new, complex, and abundant "unfiltered formats," it became increasingly difficult for librarians (or anyone, for that matter) to monitor information for "authenticity, validity, and reliability" (Association of College Research Libraries, 2000, Introduction section, para.1). Through information literacy education, librarians continue to exercise their role as gatekeepers and monitors of information quality, but not simply by safe-keeping in-house collections of texts. As information literacy experts, they instruct students and faculty how best to navigate increasingly complex fields of social knowledge that might be located literally anywhere. As Miriam Laskin, a librarian at Hostos Community College/CUNY puts it

Now, more than ever . . . each individual must be her own evaluator. Every student or person who uses the Internet and the Web to find information, must be prepared to understand that critical thinking about the source of the information is

as important as anything they are going to do with it. (M. Laskin, personal communication, January 28, 2011)

Prior to 2000, library instruction—generally known then as bibliographic instruction (BI)—consisted mostly of teaching faculty and students how to access and use the information resources physically housed in the library.¹ The logical place for BI, requiring the specialized expertise of professionals familiar with the organization of print-based social knowledge within the library, was the library itself. The logical place for information literacy (IL), however, is wherever people might need and/or encounter information: in today's world, everywhere. Information literacy can thus be seen as a critical mindset, one that facilitates people's functioning in an information-saturated environment.

Information literacy did not, of course, arrive full-blown on the library scene. From the 1980s to 2000, a number of efforts to expand and enhance library instruction were initiated at individual libraries. Additionally, a Presidential Commission on Information Literacy was formed by ALA President Margaret Chisholm in 1987, releasing its final report in 1989.² In 2000, the Association of College and Research Libraries (ACRL)³ approved the *Information Literacy Competency Standards for Higher Education*, articulating and elaborating both old and new goals for library instruction. ACRL's Information Literacy Competency Standards are five in number:

1. The information literate student determines the nature and extent of the information needed.
2. The information literate student accesses needed information effectively and efficiently.
3. The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.
4. The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.
5. The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally. (ACRL, 2000, Standards, Performance Indicators, and Outcomes section, para. 1–5)

Additionally, these five standards are subdivided into twenty-two performance indicators, each of which includes behavioral outcomes. (For the full list of standards, performance indicators, and outcomes, see ACRL, 2000, or Appendix A of this volume.)

Endorsed by the American Association for Higher Education (AAHE) in 1999, and the Council of Independent Colleges in 2004, the Information Literacy Competency Standards have now been integrated into accreditation standards and principles for all institutions of higher education in the U.S.: the Middle States Commission on Higher Education (MSACS), the Western Association of Schools and Colleges (WASC), the Northwest Commission on Colleges and Universities (NWCCU), the North Central Association of Colleges and Schools (NCACS), the New England Association of Schools and Colleges (NEASC), and the Southern Association of Colleges and Schools (SACS). The ACRL website articulates where information literacy can be found within the various accreditation standards and principles of each of these organizations (“Accreditation,” n.d.). This emphasis calls colleges to account for the information literacy levels of their students, furthering information literacy instruction nationwide.

Since the 2000 approval and release of the information literacy standards, ACRL has continued to work actively on their promotion. Information literacy itself is a globalized movement (Rockman, 2004, p. 6), and the ACRL website provides translations of the standards into eight different languages. Further, in 2001, ACRL followed up on the Standards with guidelines for information literacy instructors (ACRL, 2001; Gaspar & Presser, 2010, p. 156). The 2000 standards are also being adapted to a variety of specific disciplines. Standards for science and technology were approved by in 2006, and standards for anthropology, sociology, and political science came out in 2008.

Although development of the Standards was spurred on by the technological affordances of the digital age, information literacy, as defined by ACRL, is not the same thing as information technology skills. Information literacy, as “an intellectual framework for understanding, finding, evaluating, and using information” (ACRL, 2000, Introduction section, para.5), is ultimately discrete from any technology; indeed, development of the standards included deliberate incorporation of both higher and lower order thinking skills based on Bloom’s Taxonomy of Educational Objectives. As Horning and Kraemer suggested in the Introduction to this volume, information literacy “can

be seen as the crossroads where reading (evaluation and analysis) and writing (synthesis and incorporation) meet.”

Because information literacy intersects both reading and writing processes, it has the potential to foster their reconnection in the academy. Doing so, however, requires that information literacy be construed not as a rigid set of skills and procedures—a “behavioralist framework”—but as a dynamic, generative understanding of how information is nested within and used by social communities—a “constructivist framework” (Bowles-Terry, Davis, & Holliday, 2006, p. 226). A constructivist framework supports the development of what Elmborg (2006) has called “critical information literacy” (p. 195). Like critical literacy in general, critical information literacy involves using knowledge to authentically participate in society as agents of resistance and change (p. 195).

Librarians working within a constructivist framework of information literacy do not simply teach students how to find information resources. Rather, by actively engaging students in learning how information is produced and disseminated, they support students’ critical evaluation of information. Further, by teaching students how to evaluate and use the information they find, constructivist librarians “support core academic literacies, among them reading comprehension, textual analysis, research skills and strategies, the process of research and parallel (or combined) process of writing, critical thinking, and collaborative, active, inquiry-based learning” (M. Laskin, personal communication, January 28, 2011).

Optimal methods for information literacy instruction involve weaving it into curricular structures, rather than teaching it as if it were an add-on skill. It is best integrated through pedagogies that focus on student learning, especially inquiry- and problem-based learning, or those that emphasize critical thinking and require students to “expand their knowledge, ask informed questions, and sharpen their critical thinking for still further self-directed learning” (ACRL, 2000, Introduction section, para. 10). Information literacy, like critical literacy, is also not something confined to the educational arena: It is a foundation for lifelong learning and citizenship.

With their growing attention to instructing students in information literacy, libraries are moving out beyond their walls, “trying to be less constrained by their traditional physical locations and to be seen as a service that can be used in many places” (Currie & Eodice,

2005, p. 47). Librarians today are actively collaborating with disciplinary faculty, writing centers, academic learning centers, writing across the curriculum (WAC) programs, and Writing Fellows to integrate information literacy into college curricula and support services. The promise information literacy holds for reconnecting reading and writing in the academy, however, has yet to be fully realized. Information literacy, like critical literacy, is still marginalized in many colleges and universities, to the detriment of students. Its absence from the curriculum, both in composition and other disciplinary courses, contributes to the disconnection between reading and writing instruction in the academy. In the next section, I suggest that a new model for reading and writing is needed to overcome that disconnection, a model that envisions reading and writing as embedded together in the life of social communities.

READING, RESEARCH, AND WRITING: CONCEPTUAL AND THEORETICAL CONNECTIONS

As psycholinguistic activities, reading and writing are intimately connected; both are “opportunities to arrive at meaning, to reflect on that meaning, and to act” (Sheridan, 1995, p. 13). Theories about the nature of these activities differ, however, partly because of the disciplinary specialization of the modern university. Librarians and disciplinary faculty “both engage students in performing a basic activity of academia—scholarly inquiry” (Fister, 1995, p. 34), and both involve students in “discovery, questioning, organization, and process” (LaBaugh, 1995, p. 24). They have, however, developed models for research and for writing independently of one another, thus continuing to treat these processes as if they were separate. Considering disconnects in these models can point up areas that library and disciplinary faculty need to think about collaboratively, thereby developing more holistic models of critical literacy.

Earlier in this book, Horning and Kraemer offer a definition of critical literacy as a purposeful act “whereby students call on critical thinking skills to navigate, understand, transform, and apply information for their use.” Reading (understanding) and writing (transforming and applying) are both nested within this definition, but the relationship between them warrants closer attention. I would argue that the nature of their relationship shifts depending on one’s per-

spective. To an individual writing a specific text, reading and writing may appear temporally sequential, as opposite ends of a continuum of psycholinguistic activity; the continuum begins with reading and ends with writing. In actuality, however, individuals cycle iteratively and recursively through reading and writing processes as they generate new texts. If we view reading and writing from a socio-cultural perspective, even the illusion of a linear continuum disappears. The reception and generation of texts can no longer be seen as separate, but are instead revealed to be different aspects of one ongoing process—namely, engaging in the textually mediated life of the community. Critical literacy, then, is the ability to participate authentically in communal life through both reading and writing. When individuals read and write, they do so within the language communities they inhabit. Whether they read or write (or both) at any given time depends on which process is warranted by the particular activity or situation.

Horning and Kraemer's earlier discussion of reading (in this volume) is useful in explaining what I mean here. Decoding and deciphering linguistic symbols, while essential to reading, is not sufficient for "true" reading, which requires making appropriate connections between texts and social contexts. This kind of reading, sometimes referred to by compositionists as rhetorical reading (Geisler, 1994; Haas & Flower, 1988; Penrose & Geisler, 1994), draws on extra-textual knowledge about authors, purposes, rhetorical situations, related texts, and material/social contexts to ascertain the meaning of a particular text. Skilled rhetorical readers are aware of how individual texts function within specific rhetorical contexts and of how they are influenced by the material and social constraints in which they are produced, disseminated, and received. They understand that texts are not autonomous and authoritative, but contingent, open to critical examination, and connected with other texts in multiple ways within various communities of practice.

Because a reader's expertise or domain knowledge of the context in which a text is situated enables rhetorical reading, students in lower-division college courses tend to exhibit rhetorically naive reading practices, whereas upper-division and graduate students are better able to discern how a particular text fits within the context of the discipline. Nevertheless, the ability to read rhetorically is also a procedural knowledge that can be facilitated by instruction (Penrose & Geisler, 1994). Some composition textbooks reviewed earlier in this volume by

Fleming, for example, specifically address rhetorical reading strategies that can help students develop their ability to appropriately connect text and context.

Rhetorical reading enables people to construct context-appropriate meanings from print, sound, and images. They can then purposefully use this meaning in multiple ways, furthering their ability to participate in the world. Reading may be the basis for a physical action, such as when one reads a brief on a political candidate's positions to determine how to cast a vote, or more mundanely, when one reads a bus schedule to know when to go to the bus stop. Even reading that is used simply for learning, or to extend or reconstruct one's own knowledge base, prepares one for potential future action. Reading can also motivate and/or inform writing, as when one uses what is read to generate and embody new meanings in print, sound, and images.⁴ Through this last use, reading and writing may fuse into authorship: the generation of new meaning embodied in shared semiotic systems and situated appropriately in existing textual networks. From a social community's perspective, reading and writing are not individually experienced psycholinguistic processes, but aspects of the cycling of knowledge within and among its members.

Critical literacy, then, requires the ability to connect what one writes with what one reads, so that any newly generated writing will be meaningful to readers. Writers do not necessarily need to incorporate specific texts into their writing for their reading to be meaningful to others, as long as they connect what they write to knowledge with which their readers are already familiar. Incorporating texts one has read into one's writing, however, can raise one's status as an author, because this incorporation explicitly situates one's own text in relation to other texts that have status and standing within a community (Rose 1996, 1999). Generating reading-informed writing appropriately designed to reach academic readers is at the heart of academic discourse, and the ability to do so is central to critical literacy.

Information literacy can further this ability because it grounds writing more obviously in existing cultural knowledge. Historically, compositionists have truncated the rhetorical canon, largely neglecting memory and delivery (Norgaard, 2003). As a result, they have misled students to perceive the writing of text as an isolated act, disconnected from the intertextual networks that underlie socio-cultural uses of language. Information literacy reconnects writing to social and cultural

memory as lodged in other texts, to delivery, and as realized in the dissemination of texts for reader consumption. By making the intertextual character of knowledge more transparent, information literacy makes the purposes of writing more intelligible to students. It also enhances students' practice of the other three canons: invention, arrangement and style. Knowing how to access, evaluate, and use existing knowledge facilitates the intentional processes of discovery and inquiry. Understanding the social organization of knowledge broadens students' concept of arrangement from a concern internal to specific texts to a concern with how a particular text fits within a field of texts. Finally, knowing about stylistic variations among specific communities of practice hones awareness that disciplinary discourse conventions are determined by people, not style guides (Norgaard, 2003, pp. 128–29).

If composition instruction suffers from lack of grounding in information literacy, information literacy instruction suffers from lack of connection to the ongoing rhetorical production of knowledge. An information literacy bereft of writing can be perceived as rigid, narrow, and rule-based, and as a technical skill rather than a communication capability (Bowles-Terry, Davis, & Holliday, 2006; Elmborg, 2006). Indeed, disciplinary faculty's impression of information literacy as little more than a technical skill can be recalcitrant. A few years ago, when the librarians at one institution proposed that information literacy be considered an important competence within a new general education curriculum, one committee member on general education responded, "[W]e already have computer literacy as an outcome," and when a general invitation was sent to faculty to schedule an information literacy session for their students, one faculty member responded that he didn't want to "waste class time having my students learn computer skills" (S. Sheidlower, personal communication, October 15, 2010). If librarians conceptualize information literacy not as a rule-based skill, but as "deeply context-bound" (Norgaard, 2003, p. 126), they can help faculty understand it for what it truly is—an unfolding, developing capacity to access, use, evaluate, and apply information *for specific purposes, places, and times*. Fortunately, librarians are moving in this direction, raising the profile of information literacy in many colleges and universities.

Reintegrating information literacy and writing instruction fosters not only critical literacy, but also the activity of research. By re-

search, I mean intentional and systematic investigation, motivated by a question or problem. Research might be considered a subcategory of reading that is intentionally, deliberately, and systematically directed toward the purpose of answering questions or solving problems. In the course of living, we read, or get meaning from pages and screens, in a somewhat serendipitous and disorganized manner, viewing advertisements, watching TV shows, surfing the net, reading a novel, or the back of a cereal box. Research as a form of reading, however, is generally both intentional and systematic.

As scientists and social scientists are quick to point out, researchers often look to experimental and empirical investigations of non-textual phenomena to answer their questions. How can this practice be reconciled with the notion of research as a subcategory of reading? If we think semiotically, these experiments and investigations involve “reading” phenomena as signs (e.g., a rise in temperature may be a sign that a chemical reaction is taking place; the body language of a teacher toward a student may be a sign of the teacher’s attitude toward that student). Research, then, can include “reading” meaning in material and other phenomena.

Research and writing should be thought of and taught as parts of a single, holistic activity (Elmborg, 2005; Hook, 2005). Elmborg (2005) argues that instructional librarians and writing center professionals, by working together, can enact a “shared practice where research and writing can be treated as a single holistic process” (p. 1). Hook (2005) agrees: Separating the research process from the writing process “fractures the learning experience” of students, who experience the two processes together as an “integrated, holistic experience” (p. 25). Both advocate for a new, more integrated model of research writing, founded on the combined expertise of library and composition faculty.

Unfortunately, the political economy of the modern university, with its bifurcation of reading and writing, has segregated theoretical thinking about research and writing. Librarians often think of the research process as their purview and underestimate the importance of writing to inquiry. Conversely, writing professionals often think of the writing process as their purview, viewing the research process as subordinate to the writing process (Hook, 2005, p. 21; Fister, 1995, p. 28; Gibson, 1995, pp. 59–62). This division has led to and perpetuates discrete models for these processes. Compositionists, for instance, may look to the common, four-phase model for the writing process

(pre-writing, drafting, revising, and editing), in which every stage is recursive.

Kuhlthau's (2004) model of research, however, identifies six stages in the research process: task initiation, topic selection, prefocus exploration, focus formulation, information selection, and search closure.⁵ Though she does consider the research process as primarily antecedent to the writing process, Kuhlthau does view research stages as recursive, and believes that writing can be a form of "exploratory strategy" during the research process (as cited in Hook, 2005, p. 24). How might Kuhlthau's model of research articulate with compositionists' writing process models? Reconciling existing process models for research and writing, Elmborg (2005) suggests, would go far toward reuniting the "intimately intertwined" reading and writing processes in the academic work of students:

The recursiveness of the research/writing process is related at least in part to the recurring interplay between writing and information. By segregating the research process from the writing process, we have obscured this fact and thereby impoverished both the writing process and the research process. This segregation reflects institutional division, but not the reality of student work. Composition faculty see the "writing process," whereas librarians see the "research process." This bifurcated approach fails to explain the integrated holistic experience of the student using information in the writing process. By working in collaboration, these two units can treat the research process and the writing process as a seamless whole. (p. 11)

If librarians and disciplinary faculty collaborated to better articulate reading and writing, they would also develop a shared language for scholarly inquiry that would lead to a more coherent pedagogy for research writing. Using similar terms when working with students, "teaching librarians and writing professionals [would] reinforce writing and research as shared processes" (Hook, 2005, p. 27).

For sound pedagogy, however, research and writing instruction must extend beyond the traditional "library research paper" assignment. Despite many attacks on the research paper as an academic genre, and despite the awakening understanding that both reading and writing are multimodal, the traditional "library research paper"

assignment is still a staple assignment in both composition and other disciplinary courses (see Thaiss & Zawacki, 2006, p. 104 for an indication of its ubiquity in the academy). If students are to understand research and writing as a dynamic process for exploring and answering authentic questions, this addiction needs to be addressed.

In what I call the traditional research paper, students look information up and assemble it to produce an alphanumeric, print text. The history of the assignment is rooted in the late nineteenth century rise of the modern university. As Russell (2002) has explained, the research paper assignment in that context was intended for the communication of authentically original knowledge. As the pace of knowledge production in universities quickened, however, generating new knowledge became more difficult for undergraduate students. By the early part of the twentieth century, the research paper had become more a means of assessing student learning than a vehicle for communicating new knowledge. Additionally, as first year composition courses sprung up across the U.S., responsibility for teaching how to write the research paper shifted from disciplinary to English programs.

By the late twentieth century, composition instructors' dissatisfaction with the traditional research paper was on the rise. Larson (1982) argued that the so-called "generic 'research paper'" (p. 812) is actually a "non-form" of writing since it has no conceptual, substantive, or procedural identity. Further, he suggested that the assignment warps students' understanding of both research activity and writing. By implying that research activity requires only the taking of notes from books in a library, it gives students a reductive notion of what it means to do research. By implying that the research paper is the only form of writing that incorporates and uses research, it leads students to think that other genres of writing (e.g., memos, recommendations, etc.) do not rely on the incorporation of research.

Like Larson, Norgaard (2004) warns that the traditional research paper may stand in the way of good research and writing pedagogies. By divorcing research from genuine inquiry, the research paper assignment leaves only a shell product in which students assemble pre-existing knowledge. Furthermore, students' production of this shell product is especially susceptible to plagiarism, as students are tempted to simply cut and paste from Internet sites to produce patchwork assemblies. To be effective, research-based assignments should call for the dialogic generation and revising of knowledge. Informational re-

search assignments that lend themselves to cutting and pasting do not always engage students adequately in ongoing conversations about “intellectual, social and ethical issues” (p. 223).

Compositionists have developed many viable alternatives to the traditional research paper assignment, including having students engage in research activities other than reading, such as ethnography, interviews, and empirical research. As well, new ways of “writing” about the results of research activity are being explored (see Zemliansky & Bishop, 2004, for examples of both strategies). Librarians’ deep understanding of research can be very helpful to composition and other disciplinary faculty seeking more authentic research writing assignments. Lutzker (1995) provides a number of suggestions for alternatives to the traditional research paper. Leckie (1996) uncovers false assumptions faculty may make about student research and provides ideas to more effectively scaffold research for novices. She also argues that the integration of information literacy into college curricula can assist students in their acculturation to research writing practices.

As has been suggested in this section, compositionists and librarians, working collaboratively, can design theories and pedagogies that reconnect reading and writing. In the next section, I consider practical ways library and disciplinary faculty can interact as they work toward achieving this goal.

CRITICAL LITERACY: CONNECTING READING, WRITING, AND DISCIPLINARY CONTENT

In Sheridan’s (1995) edited volume, *Writing Across the Curriculum and the Academic Library*, Fister (1995) lamented that both bibliographic instruction (now information literacy instruction) and writing instruction were “outside the traditional political economy of the academy,” in danger of becoming “a stepchild, a time-consuming, additional task shared by many, but . . . no one’s primary focus” (p. 33). In a foreword to that same volume, however, Kirk (1995) offered a more positive view. In the twentieth-century university, he argued, content and process were dichotomized, and content was privileged over process, leading to the marginalization of both WAC and BI. Higher education, however, was due for a change, a “revolution in undergraduate education” that would “synthesiz[e] content and process into an integrated

whole” (p. xi). WAC and BI alliances, suggested Kirk, might further that integration.

Some of this content-process synthesis has already begun. Pedagogies such as inquiry- and problem-based learning, for example, fulfill Lyotard’s (1984) call for greater attention to procedural knowledge. Lyotard argued that modern conditions, where knowledge is increasingly stored in databases, require a new pedagogy that “treat[s] the teaching of content as less important than the process of inquiry and the mode of access to that content” (as cited in Elmborg, 1995, p. 2). In Lyotard’s ideal pedagogy, learning content material takes a back seat to learning how to access content material or understanding “the relevant memory bank for what needs to be known” (as cited in Elmborg, 1995, p. 2). Similarly, in inquiry- and problem-based learning, the acquisition of specific content is seen not as an end in itself but as a means of solving a problem or answering a question.

In the twentieth-century university, teaching procedural knowledge was less valued, and bibliographic instruction was marginalized even more than composition instruction. Composition, at least, had a niche in academic instruction, secured by the nearly ubiquitous freshman composition course. By contrast, librarians were generally as considered service rather than instructional professionals, having second-class status to disciplinary faculty. Accordingly, much early work guiding librarians on how to promote information literacy begins from the presumption that librarians need to be especially proactive because of their “secondary” position. Thompson (1993), for instance, speaks of the need to “seduce” academic faculty at Earlham College to establish good bibliographic instruction programs (as cited in McGuinness, 2007, p. 27). *Learning to Lead and Manage Information Literacy Instruction* (Grassian & Kaplowitz, 2005) begins with a chapter on leadership qualities and strategies, tacitly sending the message that librarians be good leaders to generate and maintain successful information literacy programs. By arguing that the success of information literacy instruction depends on “how well we show how IL assists others in achieving their goals,” Grassian and Kaplowitz subtly subordinate the educational agenda of librarians to that of disciplinary faculty (p. 32). Such subordination reinforces the “power deficit” between library and disciplinary faculty, giving the impression that information literacy professionals must “don their promoter’s hats and hustle for business wherever they can find it” (McGuinness, pp. 27–28). It also

places information literacy on a lower level than disciplinary content in a hierarchy of knowledge.

Fortunately for the future of reading and writing in the university, librarians' status in the university has been improving. Since the 1970s, ACRL has actively supported faculty rank, status, and tenure for librarians, and current growth in information literacy initiatives strengthens the argument: "With the move toward information literacy and faculty involvement, more and more librarians see themselves as equal partners with teaching faculty" (Millet, Jeremy, & Wilson, 2009, p. 180). This rise in librarian status is an encouraging sign that the twenty-first century university may indeed be in the process of re-valuing instruction in reading and writing.

As librarians have moved from "warehouse definitions of the past and toward instructional models," they have become agents of change in the university (Elmborg, 2005, p. 4). The "new" academic librarian, or what Bell and Shank (2004) call the "blended librarian," mixes the role of the traditional librarian with the information technologist's knowledge of hardware and software and the educators' expertise in teaching and learning. Librarians in this expanded role must be skilled communicators, able to "communicate easily and effectively with both teaching faculty and students, in the classroom and out" (Millet et al., 2009, p. 191). Indeed, the collaborations librarians have been actively forming with both writing and other disciplinary faculty has moved information literacy concerns from the margins of the university into its center, creating more sustainable models of information literacy instruction.

Approaches to collaboration, however, vary in how well they serve to reconnect reading and writing. In 2000, the year the Information Literacy Competency Standards were approved by ACRL, Raspa and Ward (2000) outlined three levels of potential interactions between librarians and disciplinary faculty, based on duration and intensity of the relationship, workload sharing, and commonality of goals. The first level, networking, is simply an informal and ephemeral professional sharing of information; it does not necessarily involve shared purposes. The second level, coordination, involves an identified shared purpose, but suffers from little shared activity or sustained relationships. In the third level, full collaboration, librarians and academics engage in a committed, sustained relationship, working as equal partners toward common academic goals and deciding together on how to

reach those goals (pp. 4–5). Full collaboration is the most promising level for re-integrating reading and writing in the academy.

The following section describes common approaches to information literacy instruction, based on Raspa and Ward's (2009) categories of interaction. The order of presentation follows an arc of what I hope to be a movement in higher education toward greater collaboration between librarians and academy faculty, greater integration of information literacy into curricula, and a restored connection between reading and writing in the academy.

NETWORKING-COORDINATION APPROACHES

Networking and coordination approaches to information literacy instruction have the potential to reconnect reading and writing; however, lack of shared purpose and/or sustained interactions between librarians and disciplinary faculty can jeopardize their effectiveness. In the traditional library tour, for instance, classes are often brought into the library for a single session, with the librarian introducing the library resources. Such tours were common prior to and at the beginning of the digital age, when a majority of information resources were literally housed on the library's premises. Even then, the physical tour was not temporally sound, as it did not provide the "just-in-time" learning optimal for real gains in information literacy. What was learned during an overview tour would often be forgotten by the time it became useful to students.

Today, with so many information sources available only online, the tour model has, in many cases, given way to the "one-shot" information literacy session that a faculty member schedules with an information literacy instructor. In the best of circumstances, the faculty member and librarian work together to create a contextualized information literacy session specific to the needs of students in that particular course. For example, a psychology faculty member might ask students to summarize three peer-reviewed articles on a mental illness, and the information literacy instructor might teach students how to find those articles in a full-text database of psychology journals. The approach, when executed well, provides contextualized information literacy instruction, but too-cursory contact between library and disciplinary faculty can threaten its effectiveness. The faculty member, for example, may not know the available library resources sufficiently

to generate an appropriate assignment, leading to the librarian experiencing difficulty in teaching the session, and student frustration in completing the assignment. Conversely, information literacy instructors may not contextualize the session appropriately to the assignment, leaving the course instructor and students frustrated.

The contextualized session approach is especially limited when only one information literacy session is given for a particular course. Scheduling at least two sessions is more pedagogically sound, given the iterative nature of research and writing. For research writing courses, Kuhlthau's (2004) research model provides good guidance for the strategic timing of sessions. Information literacy sessions are most likely to be helpful to students after topic selection, to set them up for exploring information about their topics, and also after focus formulation, when exploratory reading has sufficiently prepared them for efficient information selection. A third strategic position, not suggested by Kuhlthau's model but by writing process models, occurs after students draft their paper/research product. Drafting often reveals to writers where more information is needed to adequately develop certain ideas and arguments; and a third session can assist students in finding that information.

A common form of information literacy instruction is contact between reference librarians and individual students. Students frequently approach reference librarians with project-specific questions, sometimes at the encouragement of their instructors. If all goes well, the reference librarian guides students toward resources that help them meet the goals of the assignment. However, students are sometimes unreliable communicators of assignment guidelines and criteria. Even with the provision of faculty-written guidelines, the instructional and rhetorical purposes of the assignment may be tacit and inaccessible to the reference librarian. In such cases, intentional coordination between the disciplinary professor and the reference librarian can enhance the ability of the reference librarian to assist students appropriately.

In optimal networking and coordination approaches to information literacy instruction, synergy between disciplinary faculty, librarians, and students can connect reading and writing activities appropriately, leading to a positive experience for all. However, a number of factors can negatively affect the efficacy of these approaches. In particular, discrepancies with expectations for and terms of the interactions can lead to disappointment, frustration, and confusion on all

parts, perversely reinforcing the academy's disconnect between reading and writing.

COORDINATION-COLLABORATION APPROACHES: LIBRARIES AND WRITING CENTERS

Collaborative interactions between academic librarians and student support services, particularly writing centers, are relatively common. These relationships tend to fall somewhere coordination and collaboration on Raspa and Ward's (2010) spectrum. Full collaborations have often sprung up in the context of organizational proximity. Leadley and Rosenberg (2005), for example, note that the co-membership of both the library and the writing center in their institution's Academic Services division facilitated their collaboration (p. 62). "Shared space," or the physical placement of writing centers in libraries, can also facilitate collaboration (Hook, 2005, p. 36). Currie and Eodice (2005) explain how opening a writing center satellite in the Kansas University Library led to the idea of cross-training peer tutors in both writing and information literacy instruction. Since many front-line library questions could be answered by trained non-professionals, librarian time was freed for activities and queries requiring their level of expertise.

Writing centers and librarians have also collaborated on programs for faculty and student development. Many academic libraries sponsor workshops on research and research-related topics (e.g., plagiarism and copyright, the language of searches, evaluation information, etc.). Often, they collaborate with writing center professionals to develop and offer these workshops. As Elmborg (2005) and Hook (2005) note, however, a better theoretical reconnection between reading and writing would provide a firmer foundation for such collaborations. With a shared understanding of inquiry as a holistic process of reading and writing, both librarians and writing instructors might overcome their natural territorialism (Hook, 2005, p. 28; Gibson, 1995, pp. 59–62). If librarians stick solely to the research process and writing centers to the writing process, however, they re-enact the academy's division of critical literacy into separate processes of reading and writing. Even when librarians and writing centers work very effectively together conjoining reading and writing, the absence of disciplinary faculty in the dynamic perpetuates the academy's separation of process from content.

COLLABORATIVE APPROACHES: TOWARD AN INTEGRATED CRITICAL LITERACY

Course Integrations of Information Literacy

Fully overcoming the content-process dichotomy requires embedding information literacy instruction in courses and bringing disciplinary faculty into the collaborative loop. WAC courses are especially good candidates for this purpose. Indeed, prior to the institutionalization of the Information Literacy Competency Standards, librarians worked with writing across the curriculum programs on the co-integration of information literacy and writing in course curricula (Sheridan, 1995). When course content, information literacy, and critical reading and writing are fully incorporated in course design and delivery, content and process dovetail in the production and use of disciplinary discourse.

First year composition instructors, aware of the connection between reading and writing, have also formed effective collaborations with information literacy instructors, particularly when the course involves students in research. In a first year composition course at Cascadia College (“English 102: Writing from Research”), librarians taught one to three information literacy sessions and also collaborated with the course professor to conduct student self-assessments of information literacy (Bussert & Pouliot, 2010). At West Virginia University, faculty and librarians together developed a first year writing course with integrated sessions on evaluating internet resources and finding books and articles. They also brought the writing center into their collaboration, training writing tutors in information literacy and piloting a “Writing and Research Clinic” with combined tutor and librarian services (Brady, Singh-Corcoran, Dadisman, & Diamond, 2009).

A third locus for the active integration of information literacy is the research writing course (Isbell & Broaddus, 1995). These courses can be taught at any level. Canovan, Gruber, Knepfel, and McKinlay (2010) report on the development and implementation of an interdisciplinary course, “Introduction to Research Writing,” developed as part of a new core curriculum at the University of DuBuque (p. 182). The University of Washington (Bothell) has a required “Interdisciplinary Inquiry” course that is team-taught by a disciplinary instructor, a writing specialist, and a librarian (Leadley & Rosenberg, 2005). The course has evolved over time, and focuses on formulating research questions, understanding the rhetorical structure of text, evaluating and using

evidence, and collaborating effectively. The first iteration was a two-course sequence that separated research and writing (the first course on focused on research, the second on writing), but later iterations of the course concentrated more heavily on teaching inquiry, creating a more unified focus.

A research writing course rich in information literacy can especially assist L2 learners with some of the difficulties they encounter while doing research, such as selecting topics; mastering sub-technical, academic vocabulary; and crediting sources appropriately (see Grabe & Zhang in this volume). Laskin and Diaz (2009) point out that L2 learners' less-developed language skills also hinder their ability to analyze, synthesis, evaluate, and use English-language texts. Much of the research reviewed by Laskin and Diaz demonstrates that information literacy instruction benefits L2 learners, increasing their vocabulary, reading comprehension, and critical thinking abilities. The authors also describe an information-literacy-integrated course, "Language, Culture, and Society," that specifically targets L2 populations. In the course, students explore sociological, anthropological, and political aspects of their own language communities, an assignment that both hones their research skills and develops pride in their language heritage.

Though embedding information literacy in curricula is increasing, librarians are generally more aware than disciplinary faculty of the pedagogical need to connect information literacy and course content. In this way, librarians resemble proponents of writing across the curriculum, envisioning writing as ideally integrated into all courses at the university rather than taught in separate composition courses. In WAC, this integration is facilitated primarily through faculty development. With information literacy, by contrast, librarians often actively participate in course instruction, a model that has drawbacks. As Laskin and Diaz (2009) point out, successful collaborations often spawn requests for further collaborations, adding to the workload of library faculty. Following Gloria Leckie, they suggest that academic librarians become "bibliographic instruction mentors, assisting and encouraging faculty with respect to integrating information literacy into their courses" (as cited in Laskin & Diaz, 2009, p. 162).

Assessment-Based Initiatives

The movement in higher education toward outcomes assessment has brought library and disciplinary faculty together to collaborate on assessment initiatives. ACRL's Information Literacy Competency Standards are clearly stated and generally understandable to outsiders, cast in language that makes them eminently assessable. Compositionists' more diversified approaches to writing instruction contrast sharply with the high level of consensus and coherence evidenced in the Standards (Fulkerson, 2005; Carter, 2003). Though the Council of Writing Program Administrators's (2000, 2008) *WPA Outcomes Statement for First-Year Composition* provides guidance on desired learning outcomes for freshman composition courses, its level of permeation into freshman composition course design is uncertain, and it deals only with first year composition.

The ACRL Standards, on the other hand, exhaustively list the qualities and behaviors of an "information-literate" individual. Further, information literacy programs are often staged in phases, moving from lower- toward higher-order competencies. No similar effort exists in composition circles to exhaustively delineate the qualities of a competent writer or the stages in becoming one. Whether it is desirable or even possible to do so is, of course, open to debate. Elmborg (2006) has criticized the strict construction of information literacy within a framework of behavioral objectives, noting that it detracts from information literacy's ability to foster critical thinking. Carter (2003) notes that postmodern perspectives challenge the notion that we can monolithically determine the definition and value of writing. A forced consensus on narrow behavioral outcomes for writing is not the answer, but engaging the question of what outcomes demonstrate writing ability in which situations may be a worthwhile enterprise.

Almost immediately after ACRL approved the Information Literacy Competency Standards, librarians began developing instruments for assessing information literacy. Two large-scale, standardized instruments were discussed earlier in this volume by Horning and Kraemer. At Kent State, a team of librarians developed the Standardized Assessment of Information Literacy Skills (SAILS), a series of multiple-choice questions using item-response theory (IRT) as its measurement model. With grant assistance and other support from the Institute of Museum and Library Services and the Association of Research Libraries (ARL), SAILS evolved into a widely-administered

test, providing assessments of individual students and institutionally, bench-marking with other institutions (Project SAILS, n.d). However, SAILS measures only four of the five standards of information literacy, omitting Standard Number Four: “the information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose” (Salem & Radcliff, 2006, p. 132). By omitting this standard, the test neglects the expressive aspect of critical literacy: critical writing.

A second large-scale assessment instrument, ETS’s iSkills test, includes assessment of how students use information, but only within digital environments. Specifically, it assesses students’ ability to use Information and Communication Technologies (ICT) for research and for writing (Katz, 2007). The iSkills test analyzes how students respond to fifteen information-based tasks in a Web environment. It is designed to assess students’ ability to define an information need, access information using digital environments, evaluate information, and manage or organize information; it also addresses students’ ability to integrate knowledge, to create information, and to effectively communicate information to particular audiences in digital environments. These latter three are clearly capabilities relevant to writing. The iSkills test, however, is limited to Web-mediated reading, research, and writing.

Apart from the standardized approach of SAILS and iSkills, localized assessments of information literacy are plentiful. As with writing assessment, localizing information literacy assessment strengthens its authenticity and face validity. Mackey and Jacobson (2010) report on localized information literacy assessment in a number of disciplines. Some of these assessments build on work in writing assessment, using rubric-based scoring of research papers.

When library and disciplinary faculty collaborate in defining assessment outcomes, the goal of reconnecting reading with writing is often furthered. For a theme-based, first year writing course at George Washington University, for instance, a cross-disciplinary assessment committee created the following list of course outcomes:

1. To read, think, and write critically and analytically
2. To gain a functional grasp of rhetorical principles
3. To acquire the ability to explore, use, and analyze information resource to meet research objectives

4. To demonstrate the habit and discipline of careful editing and proofreading
5. To develop an effective writing process. (Gaspar & Presser, 2010, p. 159)

It took the committee five meetings to complete the outcomes list and a rubric draft (p. 163); as a result of this intensive interdisciplinary work, the final list incorporated both reading and writing competencies.

By contrast, when information literacy assessment is handled separately from writing assessment, it may be less effective. Bussert and Pouliot (2010) report on a project in which students self-assessed their information literacy learning in four sections of “English 102: Writing from Research.” One to three information literacy sessions were offered in each section, and students completed an information literacy self-assessment three times during the semester. The instrument used was based on SAILS, and mirrored information literacy standards rather than integrating information literacy and writing competencies. The only writing competencies the instrument asked students to assess were those already present within the Standards, such as citing sources and the ability to organize, synthesize, and incorporate information into one’s knowledge base (p. 136).

Students reported improvements over the course of the semester, and they commented on the usefulness of the IL instruction. Teachers also reported stronger research reports, with more “As” assigned. However, students also complained that the terminology in the instrument was confusing, even after the language of the instrument was revised in the second semester (p. 145). This confusion may reflect a partition between the desired outcomes of information literacy and those of writing in the course. As discussed earlier in this chapter, separate languages have evolved in library and composition scholarship for discussing reading-writing processes. The language of the self-assessment instrument, grounded in information literacy, may not have sufficiently dovetailed with the language used by the composition instructor, reducing the instruments’ intelligibility to students.

Sustainable Information Literacy

Course-integrated information literacy instruction has served as a powerful instrument of change in the university. However, integrations based on sheer personal power—the librarian leadership model—are not sufficient to institutionalize information literacy instruction. As Currie and

Eodice (2005) point out, librarian-writing instructor partnerships ultimately need to answer questions of sustainability. Infrastructures need to be put in place so that collaborations do not die off as the individuals that instigate them move on (p. 52). Librarians agree. McGuiness (2007) offers many potential “top-down” strategies for information literacy, suggesting that librarians exploit opportunities created by innovative pedagogical initiatives and institutional transformation (p. 33).

For instance, as mentioned earlier, information literacy is now considered in accreditation criteria for all accrediting bodies of higher education in the U.S. This connection to accreditation provides a key opportunity to institutionalize information literacy. At Trinity College in San Antonio, an initiative to fully integrate information literacy into the college won funding from a presidential call for proposals supporting the college’s accreditation efforts (Millet et al., 2009). The resulting five-year program, “Expanding Horizons: Using Information in the Twenty-First Century,” focuses on five key aspects of information literacy. Trinity’s information-literacy-across-the-curriculum effort joins others at various institutions, including one in biology and history at Wartburg College; one in a general education curriculum at Augustana College; and the Mellon-funded project at Five Colleges of Ohio (p. 181). At Trinity, the president’s grant funded annual workshops, course development, and symposia; initial reports are promising. Nine courses were piloted during the fall 2008 semester, and another ten were introduced in the spring of 2009. Trinity librarians have served as embedded librarians in various courses or have taught or co-taught regular courses.

A sustainable infrastructure for information literacy can help narrow the status gap between librarians and disciplinary faculty. As Millet et al. (2009) point out, equal footing with faculty course instructors is crucial to achieving the outcomes of information-literacy enhanced courses or assignments (p. 190). To work effectively together, librarians, disciplinary faculty, and even students “must revise the notion of fixed roles for themselves within the academy, and instead embrace a dynamic where the emphasis falls on learning goals and solutions to challenges for learners” (p. 191).

CONCLUSION: OPENING A BLIND EYE

Given how productive collaboration with librarians can reconnect reading and writing in the academy, the composition field’s lack of

attention to theorizing libraries and information literacy is somewhat puzzling. Although WAC programs provide instructional models in information literacy and though WAC professionals understand the need of making connections with other teaching initiatives across the institution, “its advocates have not given much consideration to the value of collaborating with librarians” (Leadley & Rosenberg, 2005, p. 65). It is not that compositionists have failed to establish collaborations with librarians and information literacy instructors. Quite the contrary: Publications for library and information literacy professionals abound with examples of such collaborations, and many of these publications are either written or co-written by writing professionals.

The richness of this literature in library and information science publications, however, has no parallel in rhetoric and composition publications. In the course of doing research for this chapter, I was surprised at how little has been written in composition journals and books about the library and information literacy.⁶ *Composition Forum* recently published a profile of a collaborative information literacy program (Brady, Singh-Corcoran, Dadisman, & Diamond, 2009); and Sheridan’s (1995) book on WAC and the library, published by Greenwood Press, reaches beyond a library audience. Generally, however, conversations about reconnecting research and writing take place in the Burkean parlors of library and information science. Librarians have been very proactive in bringing composition theory into the arena of information literacy. By contrast, very little work on information literacy has been published in mainstream composition journals and book series.

Academic librarians’ aggressive agenda for incorporating composition scholarship may be explained in part by librarians’ historically lower status in the political economy of the university. As discussed earlier, information literacy instruction, compared to composition instruction, is the new kid on the block, and librarians have worked hard to raise its profile in the university. Building connections with disciplinary faculty, especially writing programs and writing centers, was a logical avenue toward a fuller integration of information literacy within college curricula. Composition instruction, though it has its own issues of marginalization, enjoys a slightly more secure perch within the disciplinary structure of the university, perhaps making compositionists less motivated to explore the value of information literacy.

Compositionists' relative silence about library and information literacy may also be a symptom of a general neglect of the connections between reading and writing. In ignoring information literacy and the library, composition scholars devalue one of the two legs of meaning-making: reading. Research on rhetorical reading in the 1990s brought attention to connections between reading and writing, but it did not consider how bibliographic instruction might support rhetorical reading. Today, compositionists appear unaware of how work on multimodal composing and digital literacy can be enhanced by conversations about information literacy. Information literacy supports the kind of rhetorical reading we want our students to do—whatever the medium.

As Norgaard (2003) points out, compositionists pay a cost for neglecting information literacy: namely, the continued, unjustified separation of writing from reading instruction in the academy that hinders students' development of critical literacy. Composition instruction without an information literacy perspective encourages the writing of solipsistic texts that cannot reference and be appropriately taken up within communities of practice. This crippled approach contributes to the reading-writing disconnect often experienced by students.

Neglecting reading-writing connections is costly for librarians as well. Information literacy instruction bereft of a locus and a practice becomes a narrow skill, and implications for broader intellectual endeavors remain hidden (Norgaard, 2003). For several years, however, library professionals have actively worked on reconnecting reading and writing, integrating perspectives from the field of composition into their own work. Norgaard, a compositionist, was invited to write two guest columns in *Reference and User Services Quarterly*. Why have we not had a similar guest column, written by an information literacy professional, in *College Composition and Communication*? Elmborg and Hook's (2005) edited volume on collaborations between libraries and writing centers was published in an information literacy book series. Where are the books on information literacy in our composition series?

The easy answer is to say that librarians are not interested in publishing in our field, while we have willingly been publishing in theirs. Such a rationalization lets us off too easily. It is more likely that the publishing imbalance is an effect of institutional history and disciplinary power structures. Composition instruction has had a home in the university for a long time, whereas information literacy instruction is just lately coming into its own. Compositionists may feel they have

much to teach information literacy instructors and little to learn from them. If so, they are wrong. Integrating information literacy instruction in composition and other courses can revitalize and restore connections between reading and writing in the academy.

As librarians continue to work more closely with disciplinary faculty in designing and delivering curriculum, questions will surely arise. Who, eventually, will be responsible for teaching hybrid courses generated by these collaborations? Will disciplinary instructors, in both composition and otherwise, simply appropriate the role of information literacy instructors? Will librarians and disciplinary faculty team teach courses? Will both composition and information literacy professionals become obsolete as disciplinary faculty integrate process and content more fully in their pedagogy? Perhaps the discipline-based university, as we know it today, will evolve into a new, interdisciplinary institution that foregrounds reading and writing. Whatever the future, building bridges between information literacy and writing instruction fosters the critical literacy of our students today.

NOTES

1. As late as 1995, teaching students how to use the library was known as bibliographic instruction (BI), as evidenced by the use of the term in Sheridan's (1995) collection of essays, *Writing-Across-the Curriculum and the Academic Library*.

2. For a concise summary of the early evolution of information literacy, see Rockman (2004), pp. 4–6.

3. The Association of College and Research Libraries (ACRL) is the largest division of the American Library Association (ALA). At the time of the writing of this chapter, its membership was estimated at around 12,000.

4. Though most composition scholars and instructors recognize that “writing” is not limited to generating alphanumeric text, it is worth mentioning that I define writing in its broadest sense, involving any or all of the modes identified by the New London Group as the “New Literacies.” See Horning and Kraemer, in this book, for a thorough discussion of these literacies.

5. Other models of research were developed by librarians, but Kuhlthau's (2004) is one of the first to be developed and is widely known.

6. Brady, Singh-Corcoran, Dadisman, and Diamond (2009) express similar surprise at the relative absence of information literacy articles in composition literature.