



# Moving Beyond Definitions: Implementing Information Literacy Across the Curriculum

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**This article describes a natural partnership between the library and Multimedia Writing and Technical Communication (MWTC) Program at Arizona State University (ASU) East linking writing and information literacy (IL) across the curriculum. This collaborative approach has resulted in revising existing courses in order to integrate IL as well as laying the foundation for the development of new information management courses generally throughout the institution.**

## BACKGROUND

In his overview of discussions prevalent in library literature on information literacy (IL), Edward Owusu-Ansah declared that librarians must move past definition to effective implementation of IL programs. He argued that discussions to define IL has prevented librarians from

...evoking and allowing practice to shape the concrete forms that IL instruction should take.

The duty then of the academic educator-librarian, is one of determining the scope of the concept in the context of the librarian's role and expected contribution to the realization of campus information literacy objectives, and to delineate specific and executable ways of effectuating information literacy.<sup>1</sup>

How to effectuate IL, however, has been one of the focus points of much discussion within librarianship. Susan Bjorner described the efforts of librarians to integrate IL into subject courses, to develop stand-alone credit classes, and to use technology to promote IL. But she also noted, "All of these content additions (or substitutions) represent logical extensions of older bibliographic instruction topics, but they are not enough, in themselves, to accomplish information literacy."<sup>2</sup> Yet, the ability of librarians to effect curricular change remains limited. Larry Hardesty analyzed the relationship between faculty culture

and bibliographic instruction including the issue of librarian status and place within the institution and the resulting frustration experienced by some librarians when promoting IL instruction. Hardesty noted that librarians are often urged to take more initiative to involve faculty despite the barrier that exists between them. "Powerful forces within faculty culture maintain the faculty position of control of, and resistance to, bibliographic instruction. Librarians seldom operate from a position of strength in their relationships with faculty."<sup>3</sup> A more recent report by Irene Doskatsch examined the faculty-librarian relationship in Australia.<sup>4</sup> Although a less formal study than Hardesty's research, Doskatsch confirmed much of Hardesty's conclusions about faculty perceptions of the librarian's role within the institution.

Posting to the Information Literacy Instruction listserv (ILI), Thomas Eland has eloquently urged librarians to establish instructional units for the teaching of IL. In his message of August 11, 2003, he stated "Information literacy infused across the entire curriculum should be our long-term goal, but it will only be possible if academic librarians develop and teach a foundational curriculum and then push information literacy instruction outward into the rest of the curriculum."<sup>5</sup> Pushing librarians to recognize the need to advance curriculum out of a disciplinary base, Eland does not reject collaboration with faculty. Rather, he strongly urges librarians to be teachers and to recognize that the subject of IL is a discipline that deserves and needs equal footing with other disciplines on campus in order to succeed, both in terms of curriculum development and to successfully achieve IL goals.

Eland further points out the political realities of curriculum development on

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college and university campuses. Curriculum development is driven by faculty. Eland's comments reflect Hardesty's findings about faculty culture and bibliographic instruction. Without a disciplinary program or department from which to establish curriculum, librarians are placed in the difficult position of attempting to effect curricular change and IL integration through collaboration or linkages, often resulting in frustration. A great deal of time and energy are spent on advocacy and frequently individual efforts are not sustainable beyond the work of the individual librarians or librarian-faculty team.

Despite these barriers, librarians have done much to advance IL. Many examples exist of effective IL programs through collaboration and partnership with general education/freshmen year experience programs,<sup>6</sup> writing and composition programs,<sup>7</sup> and subject courses.

But how and when librarians are involved in instruction has mainly been influenced by individual practice. Networking opportunities and programs at library conferences are rife with tales of struggles to persuade faculty and campus administration of the need to integrate IL into the curriculum. The inclusion of IL in regional accreditation requirements has heightened the awareness of IL among administrators and has provided librarians opportunities to more systematically integrate IL outcomes institution-wide. Yet, much depends on the institutional realities of each campus and the opportunities and openings available for linkage.

Collaboration between writing programs and Writing Across the Curriculum (WAC) has been one form of such linkage. In *Writing-Across-the-Curriculum and the Academic Library*,<sup>8</sup> Jean Sheridan advocated for the linkage between IL and WAC and guides both librarians and writing program administrators on how to effectively collaborate to promote both. More recently, James Elmborg compared the development of WAC and IL programs and noted the vision that the two share in common.<sup>9</sup> It is natural for Sheridan, Elmborg, and librarians to see the potential connection between WAC and IL. Both areas look to teach skills that have their own disciplinary homes yet are used throughout all the disciplines. Elmborg seems to see the compositionists as having an institutional advantage because they have a disciplinary home in English; however,

he views WAC from the perspective of a librarian not compositionist. The idea of insiders and outsiders seems to be of great importance in discussing the parallel movements of WAC and IL. American universities in the late twentieth and early twenty-first centuries are highly bureaucratized and structured organizations. While individuals across campus might find real affinities and shared intellectual interests with some individuals in other units, almost all real business takes place within the same boxes on the university "org chart." That is important to understand. Faculty consistently talk about how wonderful interdisciplinary work is. However, it is so rarely rewarded that Ernest Boyer in *Scholarship Reconsidered*<sup>10</sup> called attention to it when he redefined notions of scholarship by talking of the scholarship of integration. What all of this means is that talk, and often writing, is not followed by action.

In fact, if we look at the "classic" successful WAC programs, we can see a consistent pattern. Perhaps, the best historical source for this information is David Russell's *Writing in the Academic Disciplines: A Curricular History*.<sup>11</sup> Russell talked about the best-known examples of WAC programs emerging in the 1970s in both small liberal arts and public institutions. The small liberal arts model is the one that emerged at Beaver College led by Elaine Maimon. It was funded in 1977 by a \$207,000 NEH grant that Maimon received.<sup>12</sup> The public institution model is the one at Michigan Tech led by Art Young and Toby Fulwiler. The Michigan Tech model was funded by The General Motors Corporation.<sup>13</sup> Looking at those two models, we can begin to see a common thread. Programs succeed when they are led by dynamic personalities with vision and when they have solid funding. A large part of the very successful program at the University of Missouri is the leadership of Martha Townsend and the funding Missouri provides the program she leads. In addition, all of the leaders were tenured or tenure line faculty at the time. Young was also chair of the Humanities Department at Michigan Tech during his early WAC initiatives.

Why is this important? Like WAC, IL programs attempt inter- or cross-disciplinary partnerships. But as previously noted, higher education in reality discourages such partnerships. If there is an apparent connection between WAC pro-

grams and IL programs, one of the marked differences is the institutional status of those who lead them and the resulting potential for success. The reality is that no educational reform, no matter how well conceived and needed, is likely to have much success if the leader has little institutional status and clout. This becomes more and more of an issue when institutions get larger and more prestigious. Ironically, Richard Meyer (1999) has positively correlated librarian number and status with student success in institutions that value teaching as expressed in graduation rate, graduate school attendance, and cognitive development. Meyer attributes this increased success to the "... number of opportunities they [students] have to receive bibliographic instruction, which is dependent on the number of librarians assigned to provide classroom bibliographic instruction and one-on-one tutorials at the reference desk."<sup>14</sup> Glendale Community College Institutional Research has also positively correlated student success (grades) with library instruction.<sup>15</sup> Interestingly, this kind of educational opportunity only exists when the right resources and leadership are in place.

One other consideration should be addressed when looking at WAC and IL. WAC means all things to all people. As a result, it has multiple manifestations that differ significantly. It also suggests, like so much in higher education, that the most important factor becomes "local conditions." Susan McLeod and Eric Miraglia's lead essay, "Writing Across the Curriculum in a Time of Change," in their collection *WAC for the New Millennium*,<sup>16</sup> shows that WAC, in many ways, is related to every reform or "buzzword" of the last thirty years. In fact, just noting the heads of the various chunks of the chapter is like a history of, if not higher education, at least the entire field of rhetoric and composition studies in the last part of the twentieth century. The heads are as follows:

- What is WAC?
- Assessment
- Technology and Teaching
- Service Learning
- Learning Communities
- Changing Student Demographics: Non-native Speakers of English

- The Voices at the Margins
- Writing Centers
- Peer Tutoring
- Writing Intensive (WI) Courses
- Qualitative Studies
- Theorizing WAC
- A Changing Paradigm of Change

Many of these same reforms and buzzwords reflect the history of IL.

Arizona State University (ASU) East, still a relatively new and small institution, is a prime candidate for successful reform; local conditions are ripe for the development of one manifestation of IL integration. Although not planned originally as an IL initiative, a partnership between the library and the program in Multimedia Writing and Technical Communication (MWTC) has blossomed into an effective strategy for beginning to integrate IL across the curriculum in a way that is

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relevant to the campus polytechnic mission through the linkage of IL, information management, technology literacy, and writing.

#### ASU EAST

ASU East is one of four campuses of rapidly growing Arizona State University. ASU anticipates university-wide enrollment of 90,000 students by 2020. Located in Mesa, AZ, approximately 20 miles from the University's Main campus in Tempe, ASU East's original mission was to offer "... baccalaureate and graduate degree programs in a range of professional fields and in the liberal arts and sciences..."<sup>17</sup> Since its inception, East's enrollment has increased by approximately 30 percent each year. This growth rate is expected to continue

for the next decade. A new university president, the implementation of a State Board of Regents' mandate for change in Arizona's public universities, and the rapid growth experienced by the campus have contributed to the evolution of ASU East into a polytechnic model. Building on its focus in technology-oriented programs, the planning document "Evolution Towards a Polytechnic Model" lays out a commitment to an infusion of "technological enrichment and literacy in all programs" and balance of professional programs and those in the arts and sciences.<sup>18</sup>

ASU East Library was conceived as a hybrid with primary focus on the electronic delivery of materials. The library maintains a small book and print periodical collection representing core materials related to campus programs. Access to a broader range of resources is available to ASU East-affiliated patrons through electronic document delivery from the collections of ASU Main in Tempe, ASU West in Phoenix, and commercial vendors at no charge. East Library was established with a strong commitment to personalized service and assistance in person, by phone, through email, and both text and voice-over-IP chat.

The program in Multimedia Writing and Technical Communication was created in the Spring of 2000 and approved by the Arizona Board of Regents on June 30, 2000. Program members often describe it as a traditional, rhetorically based technical communication program that prepares students to work in a myriad of electronic environments and to prepare documents in multiple media.

#### EAST LIBRARY-MWTC PARTNERSHIP

IL instruction has always been a component of the services offered by East Library, primarily focusing on traditional sessions orienting students to the library and its services or providing research instruction relevant to a particular assignment. Librarians also work one-on-one with students in a consultative manner to assist with search strategies and to provide individual instruction at the time of need. In addition, an electronic research writing guide, which weaves together the research and writing processes, is being developed in collaboration with the ASU East Learning Center for a distance learning graduate

program in environmental technology using the Blackboard course management system.

IL collaboration between the library and the MWTC program began simultaneously on two fronts in 2001. One was the

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development of a project in which students would create a library portal for MWTC faculty and students using the MyLibrary software developed at North Carolina State University.<sup>19</sup> The project was integrated into the program's "Writing with Technology" course during the Fall 2002 and Spring 2003 semesters. Goals were multifaceted. In the process of developing a library or information portal for their program, the librarian and instructor hoped that students would engage in and develop an understanding of aspects of information management as well as explore issues surrounding writing with technology. Over the course of two semesters, students were actively involved in investigating issues of using technology to communicate information, the design of systems to present information, legal and ethical issues such as copyright and intellectual property, and aspects of selecting and organizing information.

At the time this project was in progress, the three-credit course "InfoGlut: Deal with It" was approved and taught for the first time during the Fall 2002 semester by one of the East librarians. Designed as a course focusing on the impacts of technology on the production, dissemination, and use of information, InfoGlut reflects many IL outcomes. As an upper division course, emphasis was placed on ACRL Standards 3, 4, and 5 reflecting the critical thinking aspects of incorporating new information with that previously known, selecting information to accomplish a specific purpose, and understanding the economic, legal, social, and ethical issues surrounding information.

Originally proposed by the librarian in October 2001, the course was imme-

diately accepted in principle by the vice provost for academic affairs. However, since the library is not a teaching department, a place needed to be found for it. After discussions with appropriate program directors, the course was placed in the MWTC program and included in the Fall 2002 schedule. Content included the organization of information, media, publishing, copyright/intellectual property, privacy, censorship/filtering, and globalization. Classes were held seminar-style, focusing heavily on discussions, group activities, and case studies. Class discussions were particularly effective as students used readings and activities as a jumping off point to discover new information about a topic and integrate it with their own experiences to analyze issues and problems. Students also began transferring information and new knowledge into other contexts and settings. One student, for example, rewrote her final presentation/paper to enter a regional student writing competition sponsored by a professional society. Another student, already active nationally in copyright forums, expanded her interest to international intellectual property concerns.

One of the unexpected outcomes of housing the InfoGlut course in the MWTC program was student advocacy for the inclusion of IL in their program courses. Although research-related topics and assignments are included in other MWTC courses, InfoGlut was the first exposure to IL as a concept for the students. Students reacted positively to issues and concepts surrounding the organization and use of information, not only in class but also in discussions with other faculty and the program head. As a result, the program head and librarian began discussions about integrating IL into program outcomes; other MWTC courses, particularly the entry level courses; and service courses aimed at other campus programs.

Throughout the time period that InfoGlut was being taught and the collaboration on the portal project was ongoing, shared goals and objectives between the MWTC program and the library's IL efforts were constantly reinforced, much like the shared vision of IL and WAC. Principles of information organization, structure, and design are embedded in the objectives of a writing/technical communication program such as MWTC. Further, although research and writing are often taught as distinct

processes, they in fact "... exist on a continuum ... perceived distinctions between the two are artificial."<sup>20</sup> With the additional programmatic emphasis on the use of technology, information management and design issues become particularly crucial as the added layer of ethical, legal, and social issues are infused into the writing process. Seizing on the recognition of these shared goals, the librarian and MWTC program head revised the MWTC outcomes to include IL (Appendix A). Adapted from the Council of Writing Program Administrators,<sup>21</sup> the original outcomes were mainly a reflection of rhetorical goals for a writing program. The revised outcomes better reflect the composition of the MWTC curriculum and challenge students to become fluent not only in writing and basic IL skills but also in the structure, management, and use of information and in the use of technology. The outcomes also allow for writing and IL to be fused into a comprehensive whole rather than be viewed as two separate processes.

In addition to core courses related to the MWTC major, the MWTC program also houses the service courses in technical and business communication for other campus degree programs. Although ASU East students are required to take traditional composition courses as part of their general education requirements, the Accreditation Board for Engineering and Technology (ABET)-accredited programs require additional courses in technical communication and the Association to Advance Collegiate Schools of Business (AACSB)-accredited Business Administration Program requires a course in business communication. Strong applied writing programs, with both degree-granting and service courses, seem to be an emblematic feature of polytechnic institutions. Indeed, the national leading programs of this nature (e.g., Michigan Tech, Purdue, Texas Tech, RPI) tend to be at universities that can be described as "polytechnic."

Two service courses were initially targeted for revision to include IL. One,

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"Impact of Communications Technology," is a lower division technical communication course that fulfills the technical writing requirement for degree programs within the College of Technology and Applied Sciences. As an introduction to technical communication, the course familiarizes students to the rhetoric of technical communication and various genres of technical writing. However, an additional goal of the course is to introduce students to the impact that technology has on individuals and society, lending it a humanities and social science focus.

Historically, the course has been more of an extension of the second semester composition course than a technical communication course. It featured essay writing about technical subjects. An earlier attempt to make it an introduction to writing in various technical genres failed because it did not meet the curricular needs of giving students exposure to the "human side" of technology demonstrated in a variety of readings. The idea of infusing the course with IL, emphasizing the technological component, and then having students report in a variety of technical genres seemed to be most appropriate.

To revise the course and introduce a more solid foundation in information and technology literacy, the librarian selected a new text that more closely reflected course goals and revised the structure of the course to include a series of four assignments built around the research and writing of a technical report. The report itself is the final assignment of the semester with three previous assignments requiring students to write in different genres to propose their topic, their research strategy, and then report on their progress. Thus, students engage in and reflect on the research and writing processes throughout the semester. In addition, students are expected to complete weekly writing exercises in which they evaluate readings, sources of information, and the use of various forms of technology. Thus, the course infuses not only a strong research and analysis component but also key goals of technology literacy beyond basic skills.

The second course targeted for revision is "Business Reports," the required writing course for all campus business majors. Additional impetus for revising the course to include greater emphasis on IL came

from the head of the Business Administration Program who was concerned with students' lack of exposure to library and other information resources. The librarian devised an assignment requiring students to research and analyze an industry from multiple perspectives, identify a problem, and propose a solution. The assignment blends the IL concepts of finding, retrieving, and evaluating information with the appropriate writing genres for the course and discipline. While it allows students to work on a topic relevant to their major and field of study, it also provides them with practical experience using business information sources and engaging in the type of research, writing, and problem solving that they will be exposed to in their profession. This assignment will be tested in one section of the Business Reports class during 2004. If successful, it will be incorporated in other sections of the course. This will pose an additional challenge as the course is taught by multiple instructors, many of whom are adjuncts, using various delivery formats. How to create an assignment that can be easily incorporated into coursework and facilitated by instructors who may or may not be familiar with IL is an area to be explored in the future. While developing a workshop or program for instructor training may be useful, many of the MWTC adjuncts teach via the Internet and live outside of Arizona, further complicating the coordination of IL into this course.

Another goal for the immediate future is the development of a new course, "Information Architecture," to be taught as an MWTC program course in the information management area. This course will focus on effective organization of information for use on the Web and will fit well into the selection of core courses offered to MWTC majors.

## DISCUSSION

As a young campus, ASU East continues to evolve and to structure itself on the polytechnic model. To date, efforts have been concentrated on the establishment of programs and curriculum without general institutional dialogue on the place or role of IL. Thus, the initiative reported on here is the result of practice and individual conversations but has allowed for the establishment of a foundational IL initiative that can be expanded outward as other programs become established. Indeed,

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discussions are already underway for a more comprehensive IL initiative, which will initially be linked to an English 101 course in Fall 2004.

The linkage of the MWTC program and library to develop IL-related curriculum has resulted in numerous benefits. Methodologies for integration of IL across the curriculum vary and are dependent on the realities, both academic and political, at individual institutions. At ASU East, the library is not a teaching department and cannot house its own courses. Although not in the WAC model, the linkage of IL to the service writing courses offered by MWTC program ensures that IL instruction is being integrated in a way that is potentially broad based and relevant to campus curriculum and goals. The shared emphases on information management and use make the library and MWTC program ideal partners. The partnership also allows the infusion of IL into one of the most effective methods possible through the linkage of research and writing, reinforcing the idea that the two processes are seamless and capitalizing on the shared goal of developing critical thinking skills. As a polytechnic institution, the writing component for the majority of students takes on the nature of professional and technical writing. Through integration of IL with the writing genres and styles of technical communication, students are gaining an understanding of the importance of finding, evaluating, and using information that is relevant within the context of their profession.

Ultimately, the linkage between IL and MWTC at ASU East will be just one part of where IL fits into the curriculum. Looking at the WAC connection can prove fruitful here. The questions will be "Who is responsible for IL?" and then "Who are the experts in IL?" These

clearly mirror the classic WAC questions. The most successful models of WAC programs are those where the answers to those basic questions are "the entire faculty are responsible for writing but understand the real expertise lies with the disciplinary experts in rhetoric and composition and technical communication." What this means is that faculty across the campus must understand they all have a shared responsibility in injecting IL into their curriculum. However, they can only do so meaningfully in close collaboration with the experts in the library.

## APPENDIX A Multimedia Writing and Technical Communication ASU East

### *Program Outcomes*

Though each document you produce will differ in either genre or purpose from the others, each will be evaluated in the following four categories:

**Rhetorical Knowledge.** Students will show they can:

Identify, articulate, and focus on a defined purpose

Respond to the need of the appropriate audience

Respond appropriately to different rhetorical situations

Use conventions of format and structure appropriate to the rhetorical situation

Adopt appropriate voice, tone, and level of formality

Understand how each genre helps to shape the writing and how readers respond to it

Write in multiple genres

Understand the role of a variety of technologies in communicating information

Use appropriate technologies to communicate information to address a range of audiences, purposes, and genres.

**Critical Thinking, Reading, and Writing.** Students will show they can:

Use information, writing, and reading for inquiry, learning, thinking, and communicating

Understand that research, like writing, is a series of tasks, including

accessing, retrieving, evaluating, analyzing, and synthesizing appropriate information from sources that vary in content, format, structure, and scope

Understand the relationships among language, knowledge, and power including social, cultural, historical, and economic issues related to information, writing, and technology

Recognize, understand, and analyze the context within which language, information, and knowledge are communicated and presented

Integrate previously held beliefs, assumptions, and knowledge with new information and the ideas of others to come to a conclusion, make a decision, or design a product.

**Processes.** Students will show they can:

Be aware that it usually takes multiple drafts to create and complete a successful text

Develop flexible strategies for generating, revising, editing, and proofreading  
Understand writing as an open process that permits writers to use later invention and rethinking to revise their work

Understand the collaborative and social aspects of writing processes

Learn to critique their own and others' works

Learn to balance the advantages of relying on others with the responsibility of doing their part

Use appropriate technologies to manage information collected or generated for future use.

**Knowledge of Conventions.** Students will show they can:

Learn common formats for different genres

Learn and apply appropriate standards, laws, policies, and accepted practices for the use of a variety of technologies

Develop knowledge of genre conventions ranging from structure and paragraphing to tone and mechanics

Apply appropriate means of documenting their work

Control such surface features as syntax, grammar, punctuation, and spelling

Understand and apply legal and ethical uses of information and technology including copyright and intellectual property

Understand and apply appropriate standards for use of technology including accessibility.

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