

## RE-CONCEPTUALIZING ACCESS

### The New Role of Information Literacy in Post-Secondary Education

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#### ABSTRACT

In this paper, the authors propose a new conceptual model of access in which information literacy plays a vital role in understanding and utilizing information to its fullest potential. The traditional approach, for which access to information is equated to a static item (such as a computer lab or a list of links on a website), limits post-secondary students in their capacity to effectively navigate through the ever expanding plethora of information. This new model, in which technological and information literacies are equally combined to form a true access outcome, offers a simple framework for post-secondary institutions to re-conceptualize access.

The traditional definition of access allows a digital divide to exist within post-secondary academic institutions. Many students demonstrate a noticeable deficiency in critical thinking skills when navigating and analyzing information as a result of underestimating the importance of critical thinking. In spite of traditional efforts to provide bibliographic instruction, including technological and some information literacy training, meaningful and genuine access to information has yet to be achieved. While useful, these traditional methods fail to fully provide students with the ability to effectively navigate, critically approach, and thus have full access to the ever widening frontier of information. The proposed model combines technological and information literacies to yield a level of profound access that allows for universal inclusion within post-secondary institutions, as well as meaningful, life-long learning. This model has the potential to lead a paradigm shift that will bring a new and more effective understanding of access and the role of information literacy to the top of the priority list of post-secondary institutions. Using components of the traditional model for defining access, the new model offers educators, including librarians, a means for stressing the importance and value of technological and information literacy.

In the past 20 years, post-secondary academic institutions have recognized the growing need for students to connect to electronic and online information resources. Traditionally, the response has been to increasingly fund the purchase of technological equipment to provide physical access for students. Libraries in particular have been at the hub of this transformation, evolving their services to incorporate an ever growing number of digital resources such as e-books, full-text journal databases, the World Wide Web, etc. Such increased

physical access to electronic resources has been met with an information explosion in which students are exposed to an overwhelming choice of materials and perspectives (Aggarwal, 2006). Research is no longer a matter of trusting the physical library's resources, traditionally perceived as authoritative and authentic. Information is everywhere, and it is inherently more difficult to sort through and assess its quality (Wallis, 2005). In turn, these new technologies have directly affected the way students learn and teachers teach (Roberts, 2007). It has triggered "changes" in perception about information use and knowledge creation, resulting in a re-conceptualization of the way post-secondary institutions approach pedagogy.

Bibliographic instruction has historically been offered by most academic libraries as a means to guide students in using the library's catalogue and in locating relevant materials. From one-on-one catalogue help to drop-in or scheduled in-class catalogue demonstrations, the focus has traditionally been on teaching students how to use the library's technology and navigate the university's infrastructure. Furthermore, as Julien reports in her 2005 longitudinal study of library instruction in Canadian academic institutions, the instructional objectives had not changed in the 10 previous years. Although this type of instruction is invaluable, it is only one of the many fundamental skills that are currently essential to accessing information. Information literacy (IL) is an extension of bibliographic instruction in the sense that it ultimately teaches students to critically evaluate the information that they find (Buschman, 2009). Overall, there has been much debate among academics regarding the exact parameters of information literacy (Owusu-Ansah, 2005). Some define IL as a set of skills that are needed to "find,

retrieve, analyze and use information” (Aggarwal, 2006, p. 5) while others such as Wallis (2005) stress the importance of IL being conceptualized in terms of “critical discernment and reasoning”(p. 219). For the purposes of the proposed model, the IL definition combines both perspectives to fully encompass the basic skills of locating information and the critical skills of evaluating it.

Most post-secondary institutions offer students information literacy classes and workshops. However, as Hignite, Margavio, and Margavio found in their study of 600 first-year students at a large American midwestern university (with a total school population of 20,000 students), the average student scored only slightly above the 50<sup>th</sup> percentile on an information literacy exam (Hignite, Margavio & Margavio, 2009). According to the authors, the IL exam was “designed to go beyond a simple measure of a student’s knowledge of facts, and [was] intended to assess a student’s ability to collect, analyze and utilize information gathered via the use of information technology”( p. 2).

In agreement with the findings of studies such as this one, Zabel (2004) noted that:

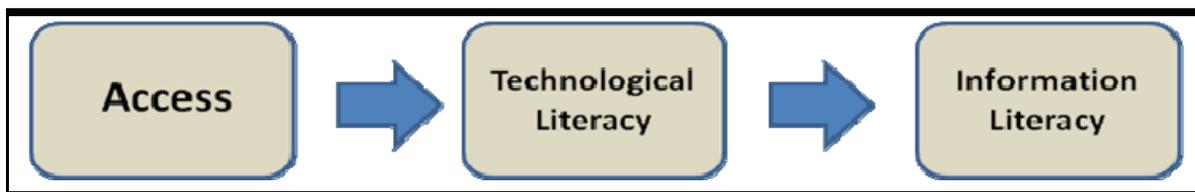
Students, especially undergraduates, often lack the skills to find, evaluate, and effectively use information. Multiple studies have confirmed

what many of us have observed: students [sic] rely on the Internet as the primary source of information for coursework, neglecting library databases and print resources. Another study of undergraduate research behaviors found that 20 percent of college seniors never make a judgment about the quality of the information that they obtain from the Internet or other sources. (p. 17)

In response, Zabel recognized the importance of the library’s involvement in developing students’ information literacy levels. Similarly, Owusu-Ansah (2003) argued that institutional forces should persist in their efforts to reinforce the importance of information literacy and the need to pay attention to it.

Overall, it is evident from the literature that academic institutions strongly support the value and inclusion of IL; however, their current efforts demonstrate that information literacy is secondary to providing physical access to the technology. As Wallis argued, vast funds are poured into the development and delivery of ever more sophisticated technologies, while comparatively little is invested in information literacy training. The following model (see *Figure 1* below) expresses the current post-secondary approach to access, in which information literacy is only a subsequent or inferior investment in student education.

FIGURE 1 — THE TRADITIONAL ACCESS MODEL IN POST-SECONDARY INSTITUTIONS



In this model, access to a physical computer and its applications is the primary goal of the institution, with technological instruction (e.g., “How to use Microsoft Office” and “Introduction to RefWorks”) at the forefront of all library workshops. Information literacy is relegated to a far off, higher-level goal that can be reached by students who seek it. Given this, IL is not a process that is considered part of a student’s fundamental required learning. Rather, in many cases it is viewed as a set of skills that can be learned “on the job.”

A number of inherent deficiencies are evident in this model, including concerns about student inclusion and access to information. Predominantly, the placement of IL training has the potential to create and perpetuate a digital divide among post-secondary students. As Shuler (2007) stated, a distance no longer

. . . stretches between the “haves and have-nots.” Rather, it is distance between the lack of knowledge and understanding that prevents individuals from using the World Wide Web’s knowledge tools effectively. It is the inability to conduct deliberative inquiries about complicated topics when faced with either too much, too little, or complicated information. (p. 142)

The “have-nots,” who, either by choice or circumstance, lack the skills and critical thinking needed to sort through the vast array of information, are excluded from fully participating in their education. Interestingly, these “have-nots” might not realize that they are on the far side of the divide. According to Johnson, Lindsay, and Walter (2008), most post-secondary students are more apt than ever before to

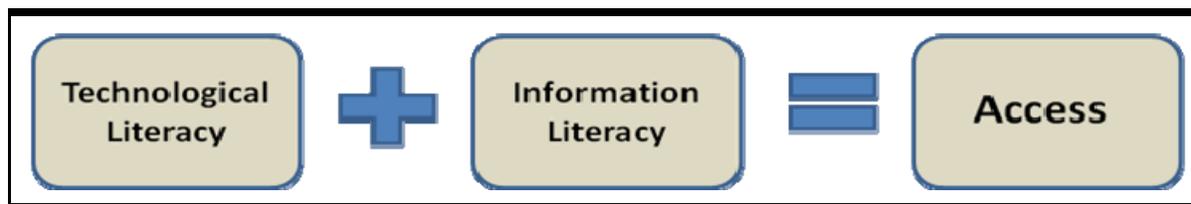
overestimate their ability to find and assess quality information. The digital divide that Shuler discusses is, in many cases, an invisible one.

Another problem with this model is that each concept is isolated, in the sense that one does not rely on the other beyond its sequential nature: Access must precede technological literacy, and IL can only be achieved once these two requirements are met. Isolating each component isolates the student from meaningful engagement with information. Moreover, “access” and “technological literacy” are simply presented as superficial steps toward utilizing information to its full potential. Most importantly, the term “access” here encompasses a fraction of its possibility. Should access be perceived only as a gateway to the realm of information? Are post-secondary institutions effectively providing students with the best access to what information has to offer?

The answers, of course, are no. The traditional definition of *access* limits the potential for students to effectively interact with information. In response to these serious shortfalls, an alternate model re-conceptualizes access as an outcome that is dependent on a solid foundation of technological and information literacies. See *Figure 2: The Proposed Alternate Access Model for Post-Secondary Institutions*.

This alternate model still emphasizes access as the primary goal of the post-secondary institution; however, in this model access is an end product, not a starting point. Therefore, access moves beyond the physical availability of technological equipment. Instead, it comprises a more complete and usable approach to information, and, in effect, delivers true access to information. True access allows

FIGURE 2 — THE PROPOSED ALTERNATE ACCESS MODEL FOR POST-SECONDARY INSTITUTIONS



students to engage with their scholarship in a more dynamic way. This type of access is possible once students have a solid foundation of skills and critical thought built from the combination of technological and information literacy.

The placement of IL in this model promotes an increased value and, ultimately, an opportunity for all students to meaningfully engage with their institution's resources. Certainly, this model requires a commitment to challenge students to think more critically about information. Critical thinking involves the development of both technical and conceptual skills. Bloom's Taxonomy provides a powerful representation of the different levels of learning that can be achieved via front-end information literacy infrastructures. In Bloom's Taxonomy, a learning hierarchy consists of a span from "knowledge," which includes the memorization of information without necessarily understanding it, to "evaluation," which requires students to make decisions about and understand the value of information. The critical thinking promoted by both the Association of College & Research Libraries' (ACRL) IL standards and Bloom's Taxonomy also include analysis and synthesis of information and cognizance of ethical and legal concerns. While it is not reasonable to expect all students to achieve the same levels of critical thinking as outlined in the taxonomy, it is realistic to expect that they all will be able to make more informed and

meaningful choices in their research when the value placed on IL training is increased as it in the proposed alternate model for access. Because the components of this model are not isolated from each other, students are expected to experience each aspect as part of a whole; the learning experience is now an essential part of achieving access in its fullest sense. Overall, this alternate model transforms access from a gateway to a realm where full iteration with information is standardized. In contrast to the traditional model of access, post-secondary students are less likely to fall into the digital divide.

Much of the current literature concerned with the changing domains of access and information literacy is overwhelming with varied viewpoints and convoluted proposals. Clearly, institutions need an overarching yet simple framework to guide them toward exact and effective responses to the problem of access. It is necessary to initiate and establish a model that facilitates action, rather than to contribute to an already clogged debate. As Owusu-Ansah (2003) indicated, solid platforms for developing and carrying out effective IL programs are required. He argued that attitudes toward, and executions of, programs and initiatives "still leave much to be desired in the discourse on information literacy in higher education" (p. 220).

There is also much discussion about who is and who should be responsible for physical

access and IL stewardship. Traditionally, libraries have housed information databases—print and, more recently, electronic, and they have been responsible for managing availability of and access to information. Aqili and Moghaddam (2008) acknowledged the librarian's role in helping people interact intimately as well as efficiently with new information technologies to locate, use, process, organize, create, communicate and manipulate information and information resources. Wallis (2005) furthered this point by reflecting on the changing role of librarians from “gatekeepers to guides”(p. 221). In other words, the librarian is no longer relegated to the periphery of the pedagogical sphere but is now part of the learning process. Along the same lines, Shuler (2007) argued that librarians must evolve with the changing landscape of the information environment: “Academic librarians must continue to build new relationships with their users not dependent on buildings, collections, or even, technology”(p. 142).

At the same time, other academics view IL as an issue that lies either partially or fully outside of the library. Bundy (2004) suggested that the responsibility for and stewardship of information literacy rest on the education system as a whole, not just the library. Zabel (2004) focused on this point by indicating that it is the teaching faculty of post-secondary education, not the librarians, who need to address the importance of IL. She also positions the students as responsible agents in seeking effective research instruction. The librarian, it would appear, is a third and largely passive element in this equation.

According to Zabel, librarians possess limited responsibility for IL advocacy and the development of such programs.

Discussing several reasons for this, she observed that students may not be interested in IL instruction and that it is extremely difficult for such programs to receive funding from their institutions. Furthermore, she argued that many librarians are already over-extended, and in addition, many do not feel competent in their teaching abilities. Although scholars such as Owusu-Ansah (2004) disagreed with Zabel's conclusion that IL is not the responsibility of librarians, most conceded that academic librarians are often viewed as subordinate to the teaching faculty, particularly in terms of their power to secure funds and support:

Librarians, doubting their ability to achieve any far reaching results and conceding the lack of institutional, human, and monetary resources to proceed with any ambitious programs, often attempt limited solutions, or worst still, continue to debate the purportedly unresolved nature of information literacy. (p.3)

At the same time, librarians are encouraged to “do what they can” (Owusu-Ansah, 2004, p. 3). But is this enough? Should the work of librarians be confined by the institution's traditional viewpoint of access and education? Or should librarians advocate a paradigm shift toward a re-conceptualization of access to offer students the most effective means to critically navigate the information world? Librarians are already deeply involved in the development and teaching of IL, and it makes sense that they will continue in this role as they move further into the technological revolution. Whether fully or partially responsible for providing access, academic librarians need to achieve consensus about how they want to participate in the educational process.

Librarians must continue to provide stewardship, but this activity cannot occur in a vacuum. Academic faculty and administrators must recognize the complementary role librarians play in supporting the quest for genuine access.

By re-conceptualizing the meaning of access, the proposed, alternative model insists on providing students with the ability to critically assess the quality and usefulness of information as a fundamental component of their education. This new understanding of access does not entail an overhaul of existing infrastructures. However it does require librarians and educators to shift their mode of thinking of access as a physical entity to thinking of access both a physical and conceptual entity. Ultimately, to secure true access, librarians must go beyond the traditional walls of the library to provide students with new ways of thinking about information.

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