

Beyond Reading and Writing: Informational Literacy in Higher Education for Lifelong Success

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Abstract

Information literacy is critical to finding, evaluating, using, and creating information. Information literacy also influences how we navigate daily life, workplace environments, and civic participation. This paper argues that students transitioning from high school to college lack skills in information literacy. In Higher Ed., faculty and librarians are charged with teaching students to research, create and add to the body of knowledge of their corresponding disciplines. Students must have solid information and digital literacy skills to achieve this goal. Based on the premise that Faculty-Librarian partnerships can utilize their respective discipline assets to strengthen students' information literacy skills, the authors engaged in a project to foster these abilities in post-secondary students. The authors approach this collaborative academic endeavor from a human rights approach recognizing that students need information literacy skills to engage in lifelong learning and civic engagement.

Keywords: Information Literacy, Higher Education, Faculty-Librarian Collaboration

"Knowledge is power. Information is power. The secreting or hoarding of knowledge or information may be an act of tyranny camouflaged as humility." Robin Morgan

Introduction

Information literacy is critical to effectively solve everyday challenges, fulfill needs, and advance human well-being in this ever-developing global information landscape. Before the digital age, being literate was reduced to reading comprehension, writing, and for some, having "critical consciousness" (Freire, 1970). In the 21st century, information literacy merits access to and knowledge of technological tools, foremost, the ability to identify, filter, evaluate, and communicate information in the digital sphere, thus, versed in technology and digital literacy. As with learning to read and write, education systems play a vital role in developing information and a digitally literate society (Gudilina et al., 2016). Kumar & Surendran (2015) state that primary and secondary schools and higher education institutions are responsible for adopting and introducing information literacy frameworks to develop lifelong learning skills, social responsibility, advancement of communities' workforce, and economic competitiveness (Educational Testing Services, 2002; Weiner, 2012). Information coupled with technology and digital literacy is a vital competency; however, many students enter college without the skill set to acquire, locate, access, evaluate, and utilize diverse types of information. Although information literacy is essential to students' success in higher education and lifelong learning, research reveals that students lack IL skills.

Considering the vast room for IL development, this paper aims to uphold the need for and importance of embedding IL throughout the curriculum in higher education. For this, the authors studied the status of information literacy during the transition from K-12 to higher education and strategies to develop the skills to acquire, locate, access, evaluate, and utilize several types of information. The authors identified and adopted the approach of instructor-academic librarian collaboration integrating information literacy instruction in a writing and technology social work course. Lastly, to illustrate the IL interdisciplinary collaboration, the authors share a joint venture in higher education applicable to other disciplines in higher education and various levels of education.

Review of the Literature

Information Literacy (IL) is a broad concept encompassing knowing and understanding how to utilize information. IL is recognized internationally as necessary for lifelong learning (IFLAI, 2021), civic participation, and the workforce (Baidoo et al., 2021). In the United States, The Association for College, and Research Libraries (ACRL) defines IL as "the set of integrated abilities encompassing the reflective discovery of information, understanding of how information is produced and valued, and the use of information in creating new knowledge and participating in communities of learning" (2016, p.8). The Chartered Institute of Library and Information Professionals (CILIP, 2018) in the United Kingdom states that IL encourages critical thinking and using the information to make "balanced judgments." CILIP also posits that it "empowers us as citizens to reach and express informed views and to fully engage with society" (p. 3). The Information Literacy Meeting of Experts hosted by United Nations Educational, Scientific and Cultural Organization (UNESCO) produced The Prague Declaration of 2003 defining IL as the "knowledge of one's information concerns and needs, and the ability to identify, locate, evaluate, organize, effectively create, use and communicate information to address issues or problems" (UNESCO, 2003, p. 1).

The Prague Declaration concluded that IL is a "basic human right of lifelong learning." Sturges and Gastingier (2010) compared multiple standards on IL, including the 2006 Statement on Information Literacies for All Australians and the Scottish Information Literacy Project (2004-2009). They found that these standards acknowledge IL as a human and civil right. This interpretation derives from Article 19 of the United Nations Declaration of Human Rights (1948).

The Alexandria Proclamation on Information Literacy and Lifelong Learning (UNESCO, 2005) makes the most vital link between IL and human rights, declaring it one of the "beacons of the information society, illuminating the courses to development, prosperity, and freedom." The Declaration further states that IL empowers people and communities to "seek, use and create information effectively" to attain "personal, social, occupational and educational goals." Thus, IL is critical to the well-being of any human being as it directly impacts social, cultural, economic, and political development. In this fast-changing information age and global economy, IL becomes a fundamental life-course skill set to successfully take advantage of resources and face challenges in all stages of life and contexts. IL is essential in everyday personal and job scenarios (Weiner, 2012; 2017).

Experts agree IL education be institutionalized as a lifelong agenda in education systems, notably higher education (Baidoo et al., 2021; Johnston & Webber, 2006; Kumar & Surendran,

2015; and Webber & Johnston, 2014). Lifelong learning goes beyond higher education; academics and librarians are critical in developing and strengthening inquiry processes (Schuller & Watson, 2009; Webber & Johnston, 2014). Libraries have been proponents of open and equitable access to information. It is not enough; however, to access information, consumers also need to understand it. Sturges and Gastinger (2010) conclude that "individuals need a broad and self-selected set of skills across the range of formats and media to support their human right to information" (p. 200).

CILIP (2018) notes that IL is not a "stand-alone concept," nor is it "just print." IL is intertwined with data, media consumption, academia, and even the "spoken word." As technology advances, it is no longer enough to examine only the print world and media critically. Society must now also be able to analyze and sift through millions of digital resources to determine information reliability and integrity. Seeking digital information can be a challenging process. Information seekers need to be familiar with the digital world, but they must also evaluate thousands of sources instantaneously with multiple points of view and degrees of reliability (Kohnen & Saul, 2018; Saunders et al., 2017; Purcell et al., 2012; Zimmerman, 2021).

Status of Information Literacy Education

In the past decade, society experienced rapid technological advances making digital communities multiply and disperse all types of information in cyberspace. Fostered by technology, the information explosion cultivates youth and young adults who are social media savvy and skilled at using the internet. Consequently, many teaching faculty at institutions of higher education overestimate students' IL levels due to their familiarity and ability to navigate the web (El Haasani, 2015) since they often exceed their level of competency. Faculty and academic librarians note how students struggle with lower-order thinking skillsets like effective internet searching, use of databases, and selection of reliable sources (Bury, 2016).

Identifying, retrieving, evaluating, and using information are essential skills to succeed academically and professionally (Zoellner, 2016). High school students, however, have varying levels of exposure to information literacy concepts. Studies show that many high schools lack credentialed librarians or share this faculty across multiple campuses. Access to research tools such as research databases is also limited (Smalley, 2004; Varlejs et al., 2013).

Informational Literacy in K-12 Education

Purcell et al. (2012) found that K-12 educators believe that their students become independent researchers but do not practice critical evaluation of resources. High school students do not review the quality and reliability of information found and accept it at face value. They conflate traditional research, consisting of an in-depth information query with a surface-level search. According to this study, most secondary school students use Google, Wikipedia, and other online encyclopedias. Around half of the students surveyed access YouTube and other social media sites to gain information, satisfied with minimal discovery. High school students see librarian assistance and research databases as less helpful than asking their peers for help or consulting search engines and social media (Purcell et al., 2012).

Correll (2019) surveyed high schools in Illinois and concluded that students in Advanced Placement courses were more likely to be exposed to information literacy instruction than

students in general courses. In addition, the study determined that high school librarians believed that many teachers were not information literate; however, they were responsible for teaching students information literacy. Moselen and Wang (2014) argue for a close collaboration between teachers and school librarians to integrate IL skills into the curriculum smoothly. Majid et al. (2016) pointed out that it may become a challenge for teachers to teach IL components independently without adequate knowledge of IL concepts. It is, therefore, desirable that teachers responsible for teaching IL components be familiar with IL concepts.

High School Students and Their Transition to College

Saunders et al. (2017) concluded that high school librarians perceived their students as more information literate than academic librarians viewed them upon entering college. Their study determined high school librarians focused extensively on citing sources, plagiarism, and defining a topic. When questioned, academic librarians believed students' performance did not reflect competence in these skills. Thus, it makes the disconnect between the concept of information literacy between high school librarians and academic librarians evident. These researchers also argue that this estrangement was due to different pedagogical approaches between high school and post-secondary institutions. In this study, academic librarians indicated students could not cite resources in different citation styles (e.g., APA, Chicago). However, high school librarians reveal they must teach MLA style exclusively, leaving students unfamiliar with additional citation styles.

To bridge this gap, academic librarians reach out to high school librarians to develop collaborative information literacy programs (Oakleaf & Owen, 2010; Varlejs et al., 2013; Saunders et al., 2017; Valenza et al., 2022). Academic librarians are also utilizing dual credit programs at their universities to reach out directly to high school teachers and offer information literacy instruction to their students (Barry et al., 2021). Academic librarians view these collaborative partnerships and outreach to address the information literacy fissure between high school and college readiness. Other academic librarians see these programs as recruiting for their university or advocating for higher education (Barry et al., 2021; Ravid & Slater 2010; Oakleaf & Owen, 2010).

Informational Literacy and Higher Education

Both high and post-secondary school students prefer to use known means to access sources of information (Bury, 2016; Head & Eisenberg, 2010; O'Sullivan & Dallas, 2010), notably Google (Stebbing et al., 2019) and YouTube (Bury, 2016). In recent studies, faculty indicated a general deficit of IL skills among undergraduates, including upper-division students (Davidson Squibb et al., 2020). Zoellner (2016) reported that 50% of undergraduate students did not access library resources in 2014, with no notable change in 2015. While students did not access peer-reviewed sources, they consulted course textbooks (Baidoo, 2021). Zakharov and Maybee (2019) reported that although students understood the importance of online learning skills, 50% were unaware of where to access reliable and credible online sources or did not know how to use the library resources on their campus. Fifty-eight percent of the students reported never using Interlibrary Loan. Head and Eisenberg (2010) learned that another contributing factor limiting college students from searching sources is the capacity to narrow down a topic.

Due to this deficit, students feel overwhelmed by the massive number of sources in their search (Stebbing et al., 2019).

Higher education faculty disdain single search engines, notably Google (Bury, 2016), use of first results. Additional studies highlight that although students are proficient at navigating the web and using technology, they often lack the skills to evaluate the quality of information (Cope & Sanabria, 2014; Saunders, 2012). Davidson et al. (2020) also noted that upper-division students valued and used scholarly sources and databases and analyzed the information retrieved from these resources.

According to Stebbing et al. (2019), faculty expect students to recognize when information is needed; identify the relevant and reliable type of information; access, analyze, and interpret (Gabre, 2018); and synthesize rather than repeat what they read (Cope & Sanabria, 2014) while using critical thinking skills (Bury, 2016). Mastering the skill to develop a well-supported argument is expected in higher education (Stebbing et al., 2019). However, in this study, the faculty did not express how students were to achieve the expectations of an information-literate person.

As mentioned before, students are skillful in navigating the internet. However, they struggle with practical academic pursuits (El Haasani, 2015). Stebbing et al. (2019) and Bury (2016) conclude that students need help and support finding and accessing information because they are deficient in advanced searching skills and evaluating information. Students reveal a deeper rift in applying higher-order thinking abilities such as evaluation and effective use of sources of information; synthesizing information and adhering to academic integrity becomes a journey impacting their academic success (Bury, 2016).

Stebbing et al. (2019) reported students' lack of skills to evaluate the depth and quality of the sources of information referenced (Fosnacht, 2014; 2015; Zoellner, 2016). A qualitative study with 34 students from community colleges in Florida and New York demonstrated that students focus on the type (i.e., newspaper, journal article, book) instead of the quality of the sources (Latham et al., 2022). Before this study, Stanford History Education Group surveyed 7000-college students, showing they lacked the skillset to evaluate the content and credibility of sources (Saunders et al., 2017).

It is essential to acknowledge that critical thinking is a learned skill. Davis (2010) notes a "shared relationship between IL and critical thinking." Critical thinking does not have a concrete definition. Albitz (2007) classifies it as a "broader, theoretical approach to learning" and describes it as meta-cognition, or "thinking about thinking." IL and critical thinking are interchangeable when utilized (Breivik, 2005). To be considered information-literate, you need critical thinking skills; however, the opposite is invalid. You can use critical thinking skills to resolve issues without questioning "if there is more up-to-date or authoritative information" to consider.

According to Bury's (2016) research, two critical elements of IL were accessing and critically evaluating resources and information. Additionally, faculty who participated in this research viewed "...information literacy as fundamentally interconnected with reading comprehension, critical writing skills, and other learning skills" (p. 249). Though reading and writing are critical, faculty described students as deficient in academic reading and writing. In a different study, faculty noted that students only read enough to complete an academic task and did not read critically or broadly (Stebbing et al., 2019). Students' lack of engagement with reading reduced their knowledge absorption and the ability to debate with peers, lessening class

participation. Additionally, it impacted how they completed writing assignments, with faculty stating students would be very descriptive because they did not read enough to connect topics on their papers (Stebbing et al., 2019).

Besides the apparent limitation of evaluation skills, students struggle with interpreting, paraphrasing, and synthesizing, displaying a "cut and paste culture," as Stebbing et al. (2019, p. 31) termed it. The perceived plagiarism of many students is due to the lack of paraphrasing skills and balancing quotations (Bury, 2016). Although three years apart, Bury and Stebbing et al. came to similar conclusions in their studies, interpreting and synthesizing students' skillsets need to be developed and academic integrity values adopted.

Informational Literacy Practice Tools

Professional societies such as the Association for College and Research Libraries (ACRL) and The American Association of Colleges and Universities (AAC&U) have created benchmark tools for teaching IL. ACRL's Framework for Information Literacy for Higher Education (Framework) was adopted in 2016 and identified six core concepts for IL. The Framework incorporates knowledge practices that determine proficiencies or abilities and dispositions that reflect how to address learning. Additionally, academic librarians who are members of ACRL have created a toolkit with resources and activities for implementing the Framework. ACRL shares a Sandbox with resources, including curriculum maps, lesson plans, assignments, and rubrics for faculty and librarians to employ when teaching IL (ACRL, 2016; 2021).

The AAC&U (2022) developed Valid Assessment of Learning in Undergraduate Education (VALUE) Rubrics to assess student-learning outcomes across sixteen areas. Faculty across the United States examined existing assessment tools to create the learning outcomes for each rubric. Two of the rubrics focus on IL and critical thinking. Every VALUE Rubric defines the rubric concept, framing language, and in some cases, a glossary of rubric terms in addition to the criteria and the level of performance. The rubrics are published as Open Educational Resources with Creative Commons licenses to be adapted as needed.

In addition to the tools created by professional societies, librarians continuously develop instructional materials for teaching and incorporating IL practices. Many of these resources are developed in collaboration or with substantial feedback from the teaching faculty. Community of Online Research Assignments (CORA) (2022) is an online community site that shares research assignments adaptable to different IL lessons. This source includes secondary and higher education research assignments, and a Teaching Toolkit focused on pedagogy, classroom activities, citation tools, and IL tutorials. Open Educational Resources (OER) Commons (2007-2022) has several open educational resources available on IL, including the textbooks, *The Information Literacy User's Guide: An Open, Online Textbook* (Bernard et al., 2015) and *Research and Information Literacy with Library Resources* (Bearman & Noyes, 2022). Librarians continue to develop new learning materials and exchange ideas for teaching information literacy concepts at conferences.

Librarians and faculty have successfully integrated information literacy into coursework and across the program. These tactics include creating assignments together, embedding librarians into courses, and creating research assistance guides and video tutorials (Raspa and Ward, 2000; Douglas & Rabinowitz, 2016; Perez-Stable et al., 2020). Embedded librarianship is

a model in which librarians meet their students where they are. It may include having an office in a specific department or having office hours in various departments on campus (Reale, 2015). One of the most common strategies for embedded librarianship is integrating the librarian into specific courses using the learning management system (Reale, 2015). Additionally, the librarian is involved in the class and works with the professor to work information literacy into the curriculum.

Faculty-Academic Librarians Collaborative

Information literacy is the foundation of disciplines that adhere to evidence-based practice (EBP). These fields require professionals to engage in evidence-based practices, thus expecting them to become information-literate and lifelong learners during their educational formation. To reach this goal, academic and professional standards on research and IL are in place in corresponding disciplines (Adam, 2014). In 2021, ACRL's Information Literacy in the Disciplines Committee published the Information Literacy in the Disciplines Guide to support and encourage IL standards and curricula developed by accrediting agencies, professional associations, and higher education institutions. This guide identifies IL standards for architecture, business, dentistry, education, library science, medicine, nursing, pharmacy, physical education and health, public health, and social work.

In the past, academic librarians taught IL, decontextualized from disciplines, resulting in being incompatible with the higher-level learning expected at this academic level (Andretta, 2012), and faculty demonstrated a lack of interest in teaching or advocating for IL proficiency (Bury, 2011). Subsequently, Bury (2016) reported the two main reasons why faculty did not engage: not feeling competent enough and not having the time to do so. Furthermore, 71% acknowledged the role of librarians in teaching IL. While faculty considers IL subject-specific and varies by course objectives (Dawes, 2019), IL skills are transferable from one subject or context to another and retained long-term if embedded effectively through an academic program with close faculty-librarian collaboration (Lockhart, 2017).

Professional Observations

Committed to faculty-librarian collaboration, the authors partnered to strengthen IL skills in undergraduate social work students at an East Texas institution. In their different practice settings, both authors identified similar IL areas of development among undergraduate and graduate students. The social work professor and an academic librarian, each with over fifteen years of experience, identified an opportunity to meet the needs of the students regarding information technology-digital literacy in a writing and technology course specific to the discipline.

In 2018 the faculty first taught a pre-designed Writing and Technology in Social Work course. At that moment, it became clear that students lacked information literacy skills. Students did not know how to identify and evaluate credible information sources. As prior research (Purcell et al., 2012) stated, the professor assumed students were experts due to their ease of navigating social media and the web. When presenting this dilemma, the librarian confirmed that although experiences varied, she regularly encountered students with low IL skills. Students searched for information but seemed not to have the skill set necessary to learn about the source and identify biases. They seem to rely on the belief that any content found online is a credible

source. This disconnect appears to transition with them from high school, where they were allowed to use a mix of resources available on the internet. (Purcell et al., 2012)

The second time teaching the course, the faculty decided to dedicate a unit to information literacy, where the librarian visited the classroom. The course was again reconfigured, including a more active role of the librarian in developing IL skills with students. In the last two years, the instructor has required students to consult a librarian at least two times during the semester to write a literature review. The faculty and librarian saw a marked difference in their writing in the students, not necessarily in grammar but in identifying and citing reliable sources. Students have also expressed feeling more confident completing their academic work. The collaborators continue developing strategies with synthesizing skills, which is still the most challenging for students.

This experience, with others, continues to motivate the librarian to host yearly workshops on topics ranging from evaluating sources to finding information. Additionally, in collaboration with other colleagues, the librarian works with faculty to present information directly or embed it in their classes. Embedding the librarians in the courses gives them access to strengthen IL skills in students, resulting in higher-level projects.

The campus where the librarian and faculty collaborate does not have a coordinated IL program. Faculty and administration on campus know IL is necessary, but there is nothing formal in place to teach those skills except what exists in the library. At one point, the librarians participated in first-year signature courses about IL, but this practice ceased several years ago. The library has invested more time in exposing students to IL in the last few years, using other strategies to offset this impact.

Recently, the librarians created two IL tutorials and embedded them directly into the Learning Management System (LMS). However, this tool was not accessible to faculty, limiting the review and use of the content in their courses. The library then identified and subscribed to an IL product capable of being embedded in the faculty's LMS course shells. The Librarians hope to work with faculty on campus to develop a more formal IL program. This social work author agrees with Reale (2015) and encourages using these tools and collaborating closely with research librarians.

Librarians should be more prominent in all academic levels and disciplines. Becoming teaching partners takes trust, a sense of humor, vulnerability, and time. This partnership enabled the two authors to invite one another into their respective disciplines by sharing their fields' expectations, conventions, terminology, and, most importantly, the goal of developing successful lifelong learners. As a result, both professionals recognize their disciplinary expertise and learn how to combine strengths to create robust and synergistic learning experiences for their students (Granruth & Pashkova-Balkenhol, 2018).

Moving Toward a Culture of Faculty/Librarian Collaboration

We encourage faculty and librarians to collaborate in developing and strengthening students' information and digital literacy skills at all academic levels. Baidoo et al. (2021) believe that librarians, in collaboration with faculty, need to assume a more vital role in teaching IL, particularly in accessing and utilizing reliable sources of information. We recognize that the opportunity for this type of collaboration is more accessible in higher education institutions due to more robust technology infrastructure compared to K-12 schools. In addition, faculty in higher

education have flexibility in the content introduced in courses and pedagogical approaches. Both academic groups share the goal of preparing lifelong learners. Thus, the librarian-faculty collaboration can result in an organic learning experience.

Dawes (2019) recommends that librarians visit classes and observe discussions to strengthen faculty-librarian collaboration. Dawes reiterates that librarians have specific disciplinary knowledge and understand how faculty approach and integrate IL. Librarians are in an ideal position to integrate IL practices across the curriculum. Faculty and librarian collaborators should engage in a grass-roots strategy to convey the importance of IL to their colleagues and university administration. Advancing IL demands collaboration and investment among all stakeholders (Selfi et al., 2020). If students are not college-prepared, educators must invest time so that they can "learn how to learn." Higher education prepares students for careers and equips them with skills to engage in their communities. IL empowers students to make informed decisions by critically evaluating information (El Haasani, 2015). We need to advocate for the integration of IL into the curriculum and recognize that it is essential to student success and lifelong learning. ACRL (2016) acknowledges information has "several dimensions of value, including as a commodity, as a means of education, to influence, and to negotiate and understand the world." Information has the power to marginalize communities or empower them, and this is what makes IL essential. For this generation to access crucial resources and develop the skills needed to become information literate, education systems must adopt a lifelong learning approach and acknowledge that access to, and the use of information is a human right.

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