Beyond Open Connections: Leveraging Information Literacy to Increase Impact of Open Education

Keywords

Information Literacy, Open Educational Resources, Professional Development

Introduction

With a core focus on access and licensing, outreach and education about open educational resources (OER) provide a perfect opportunity to explore how concepts of information literacy can guide our work with faculty, staff, and administrators who are new to open education or who have fallen prey to misinformation about OER. Legal tools such as Creative Commons (CC) licenses make it easy to share creative work with others; however, navigating the world of content reuse and copyright can be a primary barrier for many educators who are not confident in their understanding of intellectual property law. Likewise, because libraries prioritize making access as seamless as possible for our communities, educators are frequently unaware of the extent of their own information privilege. These topics of access, ownership, and privilege are central to information literacy. Considering open education advocacy through an information literacy lens allows us to connect more holistically to other Open movements and align our work with formal educational programs that are already in place at many colleges and universities.

This conference paper merges the perspectives of a librarian and an instructional designer who have approached open education with an intentional concentration on information literacy. It explores ways to leverage information literacy to develop robust educational programs and professional development opportunities that advance open educational practices.

University of Hawai'i

The University of Hawai'i (UH) is a public land-grant college and university system comprised of ten campuses across four main islands in the Hawaiian Island chain. Total student enrollment across all campuses was approximately 74,605 students in Spring 2018, representing a diverse student population of Native (or part) Hawaiian, Caucasian, Filipino, Japanese, Chinese, and students of mixed ethnic background.[1,2] UH campuses and research facilities are well known for programs in Hawaiian/Pacific studies, Astronomy, East Asian Language and Literature, Asian Studies, Comparative Philosophy, and Marine Science. Education

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[1] University of Hawai'i Institutional Research and Analysis Office, "Opening Enrollment," accessed March 15, 2018, http://www.hawaii.edu/iro/.

[2] University of Hawai'i, "About UH," accessed March 15, 2018, https://www.hawaii.edu/about-uh/.

centers within the UH system are located in more remote areas of the state (outer islands), and rural communities are served through distance education courses.

OER-focused trainings are offered to faculty and instructional staff at three campuses in the system: UH Mānoa (UHM), Leeward Community College, and Kapi'olani Community College. The OER trainings vary in scope and delivery format but have similar goals in terms of participants leaving with actionable skills and knowledge that would build capacity among OER-curious faculty. A shared set of outcomes was culled from the trainings offered at each campus, and from them an OER guidebook was created to support training and self-learning anywhere in the UH system.[3] Covering topics from author attribution for re-using CC-licensed content to uploading original work into the UH OER system-wide digital repository, the book provides essential information those who are interested in OER would need to begin with confidence.

The Outreach College (OC) at UHM operates credit and non-credit education programs to traditional and non-traditional students in the community and around the world. All evening, weekend, and summer courses are processed through the OC, extending the reach of UH's rich educational opportunities beyond day-school courses not accessible to all learners. The OC began investing in OER activities in early 2014, first by hiring a full-time OER Librarian to aid in the curation of OER and then by hiring an instructional designer to serve as OER Technologist for the UHM campus in Fall 2016. A system-wide OER committee made up of representatives from each UH campus was formed in 2015 to extend OER

adoption strategies to all campuses that did not have a full-time staff dedicated to curation, adoption, and creation efforts. As members of the system-wide OER committee largely hold librarian positions, the UHM OER Technologist serves as technology lead for the system. In this capacity, he identified a need to broaden OER skills as a means of developing technology skills beyond the UHM campus.

The OC is now developing a non-credit certificate that recognizes UH faculty and instructors who have completed OER trainings at any UH campus. A shared set of outcomes and multiple means of acquiring OER training recognized throughout the UH system will allow UH to coordinate cross-campus collaborations between OER advocates who have a shared set of skills and knowledge supporting OER adoption and adaptation.

University of Texas at Arlington

The University of Texas at Arlington (UTA) is a four-year public research university located in the continental United States. Total global enrollment for the 2016-17 academic year was 58,664.[4] This makes UTA the largest institution in the University of Texas System; in addition, it is a Hispanic-Serving Institution, and it regularly ranks among the top US colleges and universities for undergraduate diversity, transfer students, and veterans. Affordability has long been a top priority of the institution, and the UTA Libraries' open education initiatives, which began with the hire of an Open Education Librarian in Fall 2016, have a direct impact on this institutional priority.

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[3] William Meinke, "UH OER Training," accessed March 15, 2018, http://pressbooks-dev.oer.hawaii.edu/oertraining/

[4] University of Texas at Arlington, "Fast Facts," accessed March 15, 2018, https://www.uta.edu/uta/about/fastfacts/.

UTA had previously undertaken efforts to increase the use of OER on campus; however, the impact of such initiatives was not measured or preserved. Approximately a decade ago, for example, the Office of the Provost provided financial incentives to support OER, and in 2014 a professional learning community brought faculty and staff together to explore the theme of OER. Recognizing a gap in campus-wide OER coordination and the potentially significant impact on UTA's student population, the Libraries began providing leadership in this realm. It officially launched an open education program in February 2017 with workshops facilitated by presenters from the Open Textbook Network.

Since then, the Libraries developed a grant program, now in year two, to support the adoption of open educational practices.[5] The program incentivizes OER adoption, modification, and creation and provides funding and support for experiential learning opportunities that feature students as open content creators. In the 2017-18 academic year, the Libraries partnered with colleagues from across campus to implement OER course designations in response to state legislation.[6] Additionally, the Libraries joined forces with a small group of student volunteers to involve a greater number of students in the OER conversation and expand capacity for outreach across campus. The student group is a subset of a cross-campus coalition of stakeholders tasked with raising awareness of affordable educational resources.

The Open Education Librarian fields emails, provides one-on-one consultations, and presents at administrative, departmental, and committee meetings about OER. Though interest in OER varies, one consistency among all stakeholder groups is a remarkably low understanding of intellectual property rights and, in particular, of open licensing mechanisms on which OER are built. The most recent Babson Survey Research Group report on OER in higher education in the United States shows that over 80% of faculty describe themselves as being "very aware" or "aware" of copyright, and less than 50% say the same of Creative Commons.[7] Despite steady increases in self-reported awareness, anecdotal evidence suggests these numbers may be inflated.

Open Connections

The authors began working in our respective roles at approximately the same time in 2016. Though we share similar goals, such as raising awareness of OER and growing adoptions of open content, we have different backgrounds and are positioned in different units within our institutions, resulting in diverse daily activities and entry points.

As Open Education Librarian, Michelle Reed is frequently approached by instructors who have heard of OER from colleagues or the Libraries' programming and who desire to learn more. Open education, then, is the impetus for the conversation. These consultations typically unfold in the same way as traditional "reference interviews," a topic on which much has been written in the library literature and that is commonly

[5] UTA Libraries, "Open Education at UTA: Grants," accessed March 15, 2018, http://libguides.uta.edu/utacares/grants.

[6] UTA Libraries, "Open for UTA Students: Find OER Courses," accessed March 15, 2018, http://libguides.uta.edu/students/MyMav.

[7] I. Elaine Allen and Jeff Seaman, "Opening the Textbook: Educational Resources in U.S. Higher Education, 2015-16," Babson Survey Research Group, July 2016, accessed March 15, 2018, https://www.onlinelearningsurvey.com/oer.html.

explored in *The Reference Librarian*, an academic journal. That is, they begin with a series of open-ended questions designed to better understand the instructor's information need. One way in which OER consultations differ from traditional reference interviews is that they always include a discussion of CC licenses. A grant-funded training program for librarians designed by Quill West provides excellent tools for approaching OER consultations through well-established practices for reference interviews.[8]

Billy Meinke, on the other hand, is typically sought to support broader course transformations in his role as an instructional designer. OER is one component of the conversation which naturally arises in the context of course refreshes or redesigns, where aspects such as outcomes, assessment tools, and underlying technical content delivery and interaction systems also play significant roles. Consultations with faculty who are interested in OER often begin with exploring the current structure and delivery method of the course, to which an existing "off the shelf" OER textbook or course content package may fit with minimal revision. When no existing OER are deemed an appropriate fit for a course, conversations with faculty often expand to include heavier adaptation or in some cases the publishing of original content as OER. In all cases, ad-hoc training in copyright and CC licensing, along with technical guidance for adaptation of OER bring to light any gaps in faculty knowledge and skills that are essential for smooth integration of OER into a course.

Despite these differences, the authors were independently exploring connections between open education and information literacy when we met approximately one year after our respective start dates.

Information Literacy

For over a century, academic librarians in the United States have provided instruction designed to help patrons effectively navigate and use the resources and services provided by the library. Today we refer to this type of learning experience in terms of "information literacy." As digitization has shaped the ways that we access and share information, so, too, has information literacy evolved to represent a more nuanced relationship between the people who create and consume information and the systems we use to communicate in a networked world. In January 2016, the Association of College and Research Libraries (ACRL) adopted a new *Framework for Information Literacy for Higher Education*, which transitioned librarians from a skills-based approach to teaching and learning to a conceptual one.[9] Though the language in the *Framework* is student-centric, as are the information literacy programs that operate out of academic libraries, we argue that the knowledge practices and dispositions represented in the document apply to educators as much as they do to the students we serve—particularly in the context of open education.

Information literacy, as defined in the *Framework*, is "the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the

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[8] Quill West, "Searching for Open Materials," accessed March 15, 2018, https://libraryasleader.org/searching-for-open-materials/.

[9] Association of College and Research Libraries, *Framework for Information Literacy for Higher Education*, accessed March 15, 2018, http://www.ala.org/acrl/standards/ilframework.

use of information in creating new knowledge and participating ethically in communities of learning." The *Framework* presents six frames that are central to information literacy. They can serve as anchors for lessons and learning activities and provide a strong vocabulary for discussing information issues. The *Framework* should not be taken as prescriptive but rather as a set of foundational ideas with flexible implementation options to support learners at various levels of proficiency. Below we'll summarize each frame and discuss their implications for open education.

1. Authority Is Constructed and Contextual

The first frame discusses the significance of how authority is established and realized in different contexts. Learners with high information literacy proficiency in this area understand that different communities construct authority according to different paradigms and recognize that implicit and explicit bias can privilege certain voices or worldviews while excluding or silencing others.

"OER Mythbusting," an open resource from the Scholarly Publishing and Academic Resources Coalition (SPARC), lists "you get what you pay for" as one of the top seven myths about OER in North American higher education.[10] The reality is many OER undergo peer review, and OER publishers tend to be transparent about the creation process, allowing instructors to determine quality based on both the process and the final product. In some cases, these are

supplemented by public peer reviews of the OER. Those in higher education who question the quality of OER tend to construct authority according to traditional publishing practices. This is despite evidence that a traditional model does not protect against issues of quality and credibility. Take, for example, the Pearson nursing textbook that was pulled for including harmful stereotypes about racial, religious, and ethnic groups.[11]

2. Information Creation as a Process

The second frame discusses the dynamic nature of information creation, embraces the ambiguity of emerging formats, and encourages critical reflection on both process and product when determining information value. Learners with high information literacy proficiency in this area seek to understand the context in which information was created and effectively match an information product with an information need.

The creation of OER is rarely the effort of individuals acting alone, and as such the process of creating such content is often conducted by a group of collaborators who adhere to a set of shared processes and objectives. These processes may mimic classic instructional design systems frameworks, such as ADDIE (analyze, design, develop, implement, evaluate), or frameworks that are meant to support the nuances of OER development, such as that of the OERu (select, design, develop, deliver, revise).[12] Other OER design workflows, such as the CORRE framework,

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[10] Scholarly Publishing and Academic Resources Coalition, "OER Mythbusting," October 25, 2017, accessed March 15, 2018, https://sparcopen.org/our-work/oer-mythbusting/.

[11] Scott Jaschik, "Anger Over Stereotypes in Textbook," *Inside Higher Ed*, October 23, 2017, accessed March 15, 2018,

https://www.insidehighered.com/news/2017/10/23/nursing-textbook-pulled-over-stereotypes.

[12] Wiki Educator, "Digital Skills for Collaborative OER Development/Design Blueprint/Workflow," accessed March 15, 2018, http://wikieducator.org/Digital_skills_for_collaborative_OER_development/Design_blueprint/Workflow.

extend beyond a basic set of processes (content, openness, reuse & repurpose, evidence) to include roles as they relate to each step.[13] In all cases, an emphasis on the processes of information creation sit at the core of understanding the dynamic nature OER content, which is crucial in understanding how and where new collaborators must focus their energy when making any level of adaptation to open content.

3. Information Has Value

The third frame focuses on the production and commodification of information. Learners with high information literacy proficiency in this area are informed and respectful information consumers and creators; they are aware of the ways in which privacy is impacted by online behavior, they understand intellectual property rights and restrictions, they discern the significance of information access, they are cognizant of their own information privilege, and they are aware of the mechanisms by which personal information is collected and commodified.

The "Information Has Value" frame is robust in its implications for open education. The connection between OER use and reuse and instructor awareness of intellectual property rights and restrictions has already been discussed. What has been less prevalent in our conversations is how student data are collected around the use of OER via end-user license agreements (EULA). While scholarly or community norms may provide a means for offering credit for improvements made to OER content, interaction data around all types of digital content including OER may not be attributed to learners as they engage with the

content in the processes of their own learning despite this new information arguably having "value." The copyright of personal information that is created and collected "behind the scenes" as OER content is used in learning environments is typically granted to those who govern the delivery systems for digital content. Learners with high information literacy should be aware of such transfer of rights even if it is not highly visible in most cases.

4. Research as Inquiry

The fourth frame discusses the iterative nature of research and the benefits of flexibility, persistence, and organization during the inquiry process. Learners with high information literacy proficiency in this area identify and address information gaps, appreciate disagreement in deepening conversation, and value collaboration in advancing knowledge.

In many ways, OER creation is an exercise in inquiry and is iterative in ways similar to the research process. Likewise, collaboration and dissent, along with open licenses, allow for continual improvement and reuse of resources for new purposes. A growing number of educators are developing teaching strategies that allow students to contribute to content creation through an inquiry process, addressing OER content gaps and turning traditional teacher-student roles into more collaborative relationships that benefit the university community and greater public. Writing on her blog, Dr. Robin DeRosa described one such project in which she partnered with students in the

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[13] University of Leicester Institute of Learning Innovation, "Corre 2.0," accessed March 15, 2018, https://www2.le.ac.uk/departments/beyond-distance-research-alliance/projects/ostrich/corre-2.0.

discovery, creation, and dissemination of an open textbook.[14]

5. Scholarship as Conversation

The fifth frame recognizes that systems of communication can reinforce or dismantle information privilege. Learners with high information literacy proficiency in this area contribute to knowledge production, recognize that diverse perspectives drive innovation and discovery, and cite the scholarship on which new work is built.

Open education provides numerous avenues for broadening the conversation in higher education. In some cases, open licensing allows instructors to revise, supplement, convert, or otherwise improve an educational resource. A wonderful example comes from Grand Valley State University. Dr. Matt Boelkins' open textbook, *Active Calculus*, has been revised and improved upon over time by a community of educators.[15] In other cases, students become active contributors through the experience of content creation. Examples include students curating and writing content for textbooks and ancillary materials, contributing to Wikipedia, and creating interactive OER for peer audiences.[16]

6. Searching as Strategic Exploration

The sixth frame reflects the importance of access to information. Learners with high information literacy proficiency in this area embrace serendipity, search broadly and deeply, and remain flexible, patient, organized, and critical when seeking information.

The Babson report notes that the difficulty of finding OER remains the top barrier to adoption.[17] Though it's true that OER do not exist to meet every need, many instructors will declare there is "nothing" in their subject areas without having conducted a comprehensive search for relevant resources. When we consider information literacy in the student context, we note values of flexibility, persistence, and openness. However, concerns about instructor time may prevent us from also applying these values to discovery and adoption of course resources. Librarians make excellent partners for all university communities in their exploration of information and should seek to empower faculty and students alike with the mental flexibility and creativity necessary to navigate the nonlinear and iterative nature of search.

Information Literacy in Practice

In the process of harmonizing OER trainings at UH campuses, several existing digital and information literacy frameworks were referenced, including ACRL's *Framework*. It would not seem far-fetched that possessing skills and knowledge related to OER would also indicate a heightened level of information literacy among both student and faculty instructors, but OER is not typically the medium through which information literacy skills are gained. The learning outcomes of the UH OER training handbook were cross-referenced with the

[14] Robin DeRosa, "My Open Textbook: Pedagogy and Practice," *actualham (blog),* May 18, 2016, accessed March 15, 2018, http://robinderosa.net/uncategorized/my-open-textbook-pedagogy-and-practice/.

[15] Matt Boelkins, "Active Calculus," accessed March 15, 2018, https://scholarworks.gvsu.edu/books/10/.
[16] UTA Libraries, "Introduction to Open Pedagogy," accessed March 15, 2018, http://libguides.uta.edu/openped/examples.
[17] Allen and Seaman, "Opening the Textbook," 2016.

Framework to identify commonalities and areas where OER training might be able to support growth in information literacy, making progress in a knowledge domain already the focus of libraries.

While information literacy programs at higher education institutions are often targeted at student learner populations, the UH OER trainings target faculty instructors as learners but may be applicable to all individuals regardless of their role in the institution. As students can play a role in the updating and improvement of content, these trainings may be extended to invite greater engagement with OER content used in courses.

Conclusion

This paper introduces a framework for understanding information literacy and begins developing the important connections that bridge open education and information literacy. Still, there are many more connections that have yet been unexplored or that require further unpacking to reveal greater overlap. Approaching open education through this domain provides opportunities for all campus stakeholders to build on academic libraries' impressive history with information literacy and develop collaborations that advance open education through the intentional integration of information literacy concepts and mapping. There is still much room for librarians and instructional designers who support OER adaptation and creation to strengthen formal and informal modes of teaching information literacy and improve capacity to advance OER. One possibility is by creating and remixing professional development offerings that further shared goals.

About the Authors

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