Open Educational Resources: Barriers and Benefits in LIS Education

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ABSTRACT

Around the world, the cost of textbooks is prohibitive for aspiring scholars. In the United States, the Bureau of Labor Statistics (2016) indicates college textbook prices rose 88% between 2006 and 2016, approximately triple the rate of the Consumer Price Index (27%). Open Educational Resources (OER) can mitigate the textbook affordability problem and encourage student learning and success. This research explores benefits and barriers to OER and the OER use practice in LIS education, covering international trends and issues. Data regarding seven commonly-used English-language OER development platforms are discussed to inform professors' creation and adoption of OER in LIS or cognate disciplines.

TOPICS

education, scholarly communication, open source software

INTRODUCTION

The William and Flora Hewlett Foundation defines OER as teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others (Hewlett, 2013). Researchers have explored benefits and barriers to OER .

Benefits to using OER

Robinson (2015) highlights several benefits of OER adoption beyond:
- positive change in textbook quality (Bliss, Robinson, Hilton, & Wiley, Thanos, 2013)
- increasing access to core course materials for students who would otherwise forego or delay purchase (Berry, Cook, Hill, & Stevens, 2010)
- changing faculty engagement patterns with course curriculum by inviting them to develop customized OER (Robinson, Fischer, Wiley, & Hilton, 2014)
- allowing students to more efficiently use limited financial resources to maximize collegiate success (Hilton, Robinson, Wiley, & Ackerman, 2014).

These benefits, as they apply to LIS education, form a point of departure.

Barriers to using OER

A number of perceived barriers exist that inhibit OER adoption. One is the increased preparation time for selecting, revising, or developing OER. Faculty need to find and evaluate the resources that fit their course goals.

Lack of time and discoverability also play a role (Belikov & Bodily, 2016). A survey of 2,711 instructors across U.S. higher education institutions by the Babson Survey Research Group showed one significant challenge for OER adoption: lack of knowing where to find materials that allow instructors to share, remix and redistribute as well as how to determine which technology platform will fit with the OER project scope (Chatlani, 2018). Faculty need technology and information to distinguish OER from other digital content, must understand copyright to use and remix OER, understand digital accessibility standards, and also metadata tagging to develop OER.

Many OER repositories or platforms for faculty to adapt (or author) new OER materials exist, including institutional platforms to help them create and share the content – but is it worth the trouble to search if there is no usable content to be found anyway?

OER IN LIS EDUCATION

Anecdotally, there are few OER available to support LIS education even though the open aspect seems well-suited to the ethos of the field; to our knowledge, there currently is no research on OER in LIS education. An analysis of articles in LISTA (Library, Information Science and Technology Abstracts) from May 2018 reveals few from the peer-reviewed, scholarly literature. Largely informative in nature, these articles tend to be columns or short pieces in the practitioner literature that support professional work. Although many of these articles contain practical information on how OER are being supported on individual campuses, they do not help move LIS forward in terms of its use and understanding of OER.

LIS education must, therefore, be like other smaller disciplines and graduate studies, where few OER options exist (see Gallant & Lasseter, 2019). Few incentives exist for their creation, and they may fall into the categories of teaching or service for faculty authors. If writing textbooks is already a disincentivized area of the scholarly communication process in higher education, is software for textbook authoring robust enough to support it in the first place? Which platforms work best in which circumstances?

METHOD

As table 1 indicates, an analysis was carried out of seven top OER platforms (i.e., OER Commons, Top Hat, Lumen, VitalSource, Pressbooks, GitHub-Bookeditor and Rebus) over the course of 2018-2019. Data was collected on distribution formats, whether it was possible to edit existing OERs already in the platform, whether it was freely available or low-cost, if it was low-cost, what that cost was, the kinds of multimedia permitted in the platform, and the interactive aspects available. Platform selection and evaluation was empirical. There is a clear need for tools like Achieve's (2011) OER Rubrics to choose and assess the quality and suitability of OER tools.

RESULTS AND CONCLUSION

All of the platforms allowed for authoring content and five allowed existing OER to be edited. Distribution formats for OER content included PDF, HTML, EPub, proprietary formats,

and others. In terms of cost, four platforms allowed for freely available open access resources. Three platforms included mechanisms for charging students, and costs ranged anywhere from $5 to about $90 USD. Multimedia varied by platform, with images being allowed in all seven platforms. Video and links to video-sharing sites were also prevalent. VitalSource permitted slideshows and audio as well. Interactive components included the ability to post questions in a discussion forum and quiz functionalities or surveys. See Table 1.

Platforms	Distribution Formats	LTI (for Reading Content in LMS)	Cost to students	Multimedia	Interactive Components
OER Commons	HTML, PDF	Blackboard Canvas EdX Moodle Schoology	None	Images & Video	Definitions
Top Hat	Proprietary, epub	Blackboard Brightspace Canvas Moodle Sakai	None to about $90	Images & links to YouTube or Vimeo.	Discussions & Questions (MC, Word Answer, Numeric Answer, Forumula, Fill in the Blank, Matching, Click on Target [Hotspot], Sorting, Chemistry Response, Math Response, Graphing Response)
Lumen	Proprietary, some HTML	Blackboard Brightspace Canvas Moodle	$5-$25	Yes	Various question types, with a strong, WebWorks/WebAssign type tool as well.
VitalSource	Proprietary, epub	Blackboard Brightspace Canvas Moodle	$5-$15	Images, audio, video, slide shows.	Quiz and survey questions.
Pressbooks	PDF for Print (for print-on-demand), PDF for Digital Distribution, EPUB, EPUB 3 (beta), MOBI (Kindle),	Blackboard Brightspace Canvas Moodle	None	Images natively and video through H5P	Yes (H5P enabled)

	XHTML (web)				
Rebus	PDF for Print (for print-on-demand), PDF for Digital Distribution, EPUB, MOBI (Kindle), HTML, ODT	N/A	None	Dependent on Pressbooks tools.	Dependent on Pressbooks tools.
GitHub-Bookeditor	HTML, PDF, EPUB	N/A	None	Images & video	Possible with JavaScript programming.

Table 1. OER platform analysis table.

The results presented here are discussed in the context of LIS education, including the potential for leveraging the benefits of OER while mitigating the drawbacks. These results support LIS professors' understanding of OER use practice, with the potential to encourage the use of these platforms to improve teaching and learning in the field. Due to updates and upgrades, some data in this table may be out of date by the time of publication.

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