SPECIAL ISSUE ON LIBRARIANS AS FUNDAMENTAL, TRANSFORMATIONAL, AND VISIONARY LEADERS IN THE OER MOVEMENT—PART II

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Special Issue on Librarians as Fundamental, Transformational, and Visionary Leaders in the OER Movement—Part II

Anbalagan G., *Indira Gandhi National Open University (IGNOU), India*

Phil Ice, *Analytikus, USA*

Kristina Clement, *University of Wyoming, USA*

Samantha Huntington Cook, *University of Wyoming, USA*

Hilary Baribeau, *University of Wyoming, USA*

Rob Nyland, *Boise State University, USA*

Ariela McCaffrey, *Connecticut College, USA*

Ebba Ossiannilsson, *International Council of
Open and Distance Education, Norway*

Zachary James McDowell, *University of Illinois, Chicago, USA*

Mahala Dyer Stewart, *University of Massachusetts, Amherst, USA*

Liz Thompson, *James Madison University*

Jessica Lantz, *James Madison University*

Brian Sullivan, *James Madison University*

Gerhard Badenhorst, *Re3 Tech, USA*
Marsha Baum, *Re3 Tech, USA*

Ruzina Ahad, *Abu Dhabi Vocational Education &
Training Institute, United Arab Emirates*

Charleen Moore, *Re3 Tech, USA*

Mike T. Springer, *Southwestern Oregon Community College*

Caroline Kinskey, *Minnesota State University, Mankato*

Carrie Lewis Miller, *Minnesota State University, Mankato*

Letter from the Editors

Dear Readers of *IJOER,*

We are living in an extraordinary moment. With the onset of a global pandemic, the world is in turmoil, the future uncertain. It is not an overstatement to say that we are at a turning point in history. The response from the academic community and the ways in which we decide to incorporate technology and open educational resources are an important part of how we respond to this moment and continue to uphold our academic institutions and educate our students. At the heart of open educational resources are the allowances afforded by open licensing and the flexibility of an online environment. At this crucial juncture, OERs allow us to share and build in a collaborative way not available to traditional resources. Educators and students are in need of what we, the OER community, can offer them. Let's learn together. Let's build together.

This second issue of *IJOER* consists of research papers, theoretical perspectives, opinion pieces, and position papers that tackle the larger themes around the roles of librarians and academic libraries in developing open educational resources, open pedagogy, and the open-access environment. These articles include: perceptions and practice of openness in academic libraries, a narrative review of OER perception studies, an analysis of librarian advocacy for OER adoption, a feminist perspective on OER librarianship, an opinion piece on emotional labor in open access advocacy, and an analysis on OER librarian position descriptions. Like the previous issue, there is a lot we can learn from these issues and we the editors thank them for sharing their expertise.

The editors would like to thank the copyeditors, the web developers, and the printers whose labor that went into producing *IJOER* should not go unrecognized. Stay safe and be well!

Yours truly,

Melissa Layne, *Editor-in-Chief*
Samantha Peter, *Guest Editor*
Kristina Clement, *Guest Editor*
Hilary Baribeau, *Guest Editor*

Samantha Peter is the Instructional Design Librarian at the University of Wyoming Libraries. Samantha received her Bachelors in History from the University of Wyoming and Masters of Science in Information Studies from the University of Texas. Her current research projects are Universal Design for Learning in library

instruction, libraries and centers for teaching and learning, accessible library and archival practices for people with invisible disabilities, and OER initiatives.

Kristina Clement is the Student Success Librarian for the University of Wyoming Libraries. Kristina received a Master's of Arts in Italian Literature from the University of Notre Dame and a Master's of Information Science from the University of Tennessee Knoxville. Her current research interests include Universal Design for Learning in library instruction, outreach to transfer students and first-generation students, instructional assessment, Open Educational Resources (OER), and user experience.

Hilary Baribeau is the Digital Scholarship Librarian at the University of Wyoming Libraries. Hilary received her BA from Carnegie Mellon University and her MLIS from the Pratt Institute. Her research areas are in scholarly communications, open access, and open educational resources. She currently manages the University of Wyoming's OER grant initiative.

3 Questions for an OER Leader | Featuring Brittany Dudek

Brittany Dudek, MLIS, is the Colorado Community College System's OER subject matter expert, advocate, and trailblazer. As the Library Coordinator at Colorado Community Colleges Online, Brittany has been instrumental in the collaborative efforts leading to more than 80 zero textbook courses (ZTC) and Z-degree pathways in HIS and ECE. Brittany has served on the Colorado Department of Higher Education's OER Council since 2017, and is currently serving as Chair. She is also a member of the CCCO-ER's Executive Council, the Association of College and Research Libraries' Community and Junior College Library Section OER Task Force. Brittany is a 2019-2020 Open Education Group OER Research Fellow.

IJOER's OER & Beyond Moderator, Hilary Baribeau, sat down with Brittany to glean her thoughts on COVID-19's impact on students and instructors. To prevent further spreading of the virus, stay-at-home orders across the globe have forced higher educational institutions to rapidly convert face-to-face courses to a fully online learning format. Experienced in online learning, Brittany shares who instructors should contact first when designing their online courses.

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1 **Hilary:** In what ways have community colleges been particularly impacted by Covid-19?

Brittany: Community colleges have been impacted by Covid-19 in a number of ways. Our students are often balancing work, families, and school and a pandemic has complicated their already busy lives. Students may have lost their incomes or become essential workers and are now teaching their children at home or have lost childcare. In some cases, students have lost access to school: their libraries or campuses closed and they may not have technol-

ogy at home. Community college students are resilient and come up with solutions to the challenges they face every semester, but when you add in the stress and anxiety of an international disaster, many students are encountering a crisis.

2 *Hilary:* Drawing on your experience as a library coordinator who has primarily dealt with distance education, do you have any advice for instructors as they move to online instruction for the first time due to Covid-19?

Brittany: I've worked in distance education and distance library services for nearly 6 years. In that time, I've learned that it's critically important to rely on the strengths of others. This was particularly true during the rapid shift to remote instruction and even more so during the anticipated move to online and distance education for Summer and Fall 2020. Our institutions have instructional designers, educational technologists, accessibility specialists, OER coordinators, and librarians for a reason: we're all subject matter experts just as faculty are subject matter experts in their fields. I cannot recommend strongly enough that faculty and instructors lean on their campus experts for assistance in taking their courses online. Librarians can help find material or answer questions regarding copyright/Fair Use/Teach Act. Instructional Designers and Educational Technologists can assist with implementing best practices of online course design, assignment and assessment creation,

and interactivity and engagement. Accessibility coordinators can help ensure that appropriate guidelines are followed so all students can access their learning materials. It can be overwhelming when thinking of all that has to be done to take a course online, but there is no reason to go at this alone when we have subject matter experts ready and eager to share their expertise. We're all working in higher education for the same reasons: education is a common good and we want to see students succeed.

Hilary: Additionally, any suggestions for best practices or strategies for OER advocates as they encourage faculty members to adopt OERs in their online materials?

As OER advocates, we know that OER can help provide solutions for some of the issues our students (and faculty) are facing during the Covid-19 crisis. The costs of course materials were a barrier to education before the pandemic and they will continue to be a barrier during and after. Perhaps even more of a barrier now that we are also facing is an unemployment crisis, and students are losing access to the on-campus systems that supported their course success: technology, Internet access, and shared textbooks.

As faculty are shifting to online courses, I would encourage OER advocates that this is the time to gently remind faculty of some of the benefits of OER: a) immediate and continued access to course materials; b) no cost; and c) remixing and adaptation of materials. Since converting to online and changing course

materials simultaneously is a big shift, I would encourage all OER advocates to make the time to offer assistance in converting to OER. The benefits of converting to OER for students and faculty are exponential right now.

3 *Hilary:* You currently serve as the Chair of the Colorado Department of Higher Education's OER Council. What are some of the Council's development goals and the support the Council provides?

Brittany: Colorado is fortunate to have a common course numbering system. So, as our first-year grant projects come to a close, we are setting up a referatory of Colorado OER Grant projects aligned to the courses. Faculty (and OER advocates) will be able to easily find related course materials. Our grants have touched over 100 courses and we're excited about the future of OER adoption in Colorado!

Like many others, we had to postpone our annual convening which was to be held in June. But we realize the benefits of professional development to OER advocates and are moving forward with a virtual event. We hope to hold a fall event and plan to continue our virtual webinar series. The OER Council recognizes the relationship between student access to education and access to course materials and strongly supported the reallocation of our conference funds to the Colorado Department of Higher Education's No Lapse in Learning Fund (https://highered.colorado.gov/no -lapse-in-learning) which provides students with technology access so they can continue to access their education.

The OER Council is particularly proud of our OER Ambassador program which has trained over 140 OER advocates around the state who serve as the campus champions and experts when it comes to OER advancement. These Ambassadors, coupled with campus-level OER committees, provide an excellent infrastructure to support OER efforts. Ω

Perceptions and Practice of Openness Among Academic Librarians

Mary Jo Orzech
The College at Brockport, SUNY

Samuel J. Abramovich
University at Buffalo, SUNY

Abstract

Librarians from a multi-institution, public higher education system were invited to participate in an online survey to assess their current practices in support of open access (OA) activities and their attitudes and behaviors related to the use of open educational resources (OER). This descriptive, small-sample survey was conducted after the first year of a multi-million dollar infusion in state funding to "move the dial" in textbook affordability using OER. The results provide insight into librarians' perceptions of the support for, adoption of, and usefulness of open activities. Open-ended qualitative responses related to the sustainability of an OER program complement and provide additional narrative for discussion. Findings indicate that after the first year of increased support, some librarians are deeply involved in OER activities, while the majority are still in the early stages of learning about OER and are not yet comfortable with offering OER assistance to others.

Based on the survey results, a number of innovative ways that librarians are infusing components of openness into their work are described. Suggestions identified relate to additional recognition and rewards for instructors and librarians, training and education, and administrative, staffing, and financial support. The developmental life-cycle for implementing change and measuring impact is also discussed, leading to a call to move forward toward more open pedagogical practices. Challenges are noted and suggestions offered for improvements in OER programs. The study concludes with how other libraries can use these results to inform plans for further adoption of open initiatives at their institutions.

Keywords: open educational resources, survey, perceptions, attitudes, librarian

Percepciones y prácticas de apertura entre bibliotecarios académicos

Resumen

Se invitó a los bibliotecarios de un sistema público de educación superior de varias instituciones a participar en una encuesta en línea para evaluar sus prácticas actuales en apoyo de las actividades de acceso abierto, así como sus actitudes y comportamientos relacionados con el uso de recursos educativos abiertos (REA). Esta encuesta descriptiva de muestra pequeña se realizó después del primer año de una infusión multimillonaria en fondos estatales para "mover el dial" en la asequibilidad de los libros de texto utilizando recursos educativos abiertos. Los resultados proporcionan información sobre las percepciones de los bibliotecarios relacionadas con el apoyo, la adopción y la utilidad de las actividades abiertas. Las respuestas cualitativas abiertas relacionadas con la sostenibilidad de un programa REA complementan las respuestas cuantitativas y proporcionan una narración adicional para la discusión. Los resultados indican que después del primer año de mayor apoyo, algunos bibliotecarios están profundamente involucrados en las actividades de REA, mientras que la mayoría aún se encuentra en las primeras etapas de aprendizaje sobre REA antes de sentirse cómodos al ofrecer asistencia de REA a otros. Según los resultados de la encuesta, se describen varias formas innovadoras en que los bibliotecarios infunden componentes de apertura en su trabajo.

Las sugerencias identificadas se relacionan con el reconocimiento y recompensas adicionales para instructores y bibliotecarios, capacitación y educación, y apoyo administrativo, de personal y financiero. También se discute el ciclo de vida del desarrollo para implementar cambios y medir el impacto, lo que lleva a un llamado a avanzar hacia prácticas pedagógicas más abiertas. Se señalan los desafíos y se ofrecen sugerencias para mejorar los programas REA. El estudio concluye con cómo otras bibliotecas pueden usar estos resultados para informar planes para una mayor adopción de iniciativas abiertas en sus instituciones.

Palabras clave: recursos educativos abiertos, encuesta, percepción, actitud, bibliotecario

学术图书馆员的开放观念与实践

摘要

来自一个由多机构组成的公立高等教育系统的图书馆员受邀参与一项网络调查，以评估其当前在支持开放存取活动方面的实践，以及其对开放教育资源（OER）使用的态度和行为。该描述性小样本调查是在将几百万美元注入州级经费，以期用开放教育资源"推动"课本可负担性计划实行一年之后进行的。调查结果对图书馆员在开放活动的支持、采用及有用性方面的看法提供了见解。与OER项目可持续性相关的开放式定性响应对定量响应进行了补充，并为相关探讨提供了额外叙事。结果表明，在第一年资金投入后，一些图书馆员现已积极参与OER活动，但大多数图书馆员仍旧处于学习OER，以便之后他们能乐意为他人提供OER协助的早期阶段。基于调查结果，描述了图书馆员为将开放实践的组成部分注入其工作而使用的一系列创新方法。识别出的建议有关于对教师和图书馆员的额外认可和奖励，培训和教育，以及行政支持、人事支持和财政支持。还探讨了用于落实改变和衡量影响的发展周期，因此呼吁向更开放的教育实践迈进。就提升OER计划指出了相关挑战并给出了建议。本文结论提到了其他图书馆能如何使用这些结果来影响关于在各自机构进一步采纳开放倡议的计划。

关键词：开放教育资源，调查，观念，态度，图书馆员

A growing number forward-thinking librarians are exploring open education (e.g., data, research, educational resources) (Spilovoy 2018). This shift reflects a decreasing emphasis on permissions and protections of academic materials toward an increasing focus on how to best share and use information. However, as with many emerging technologies, the initial understanding of librarian work with open education has been limited to anecdotal narratives and general surveys about satisfaction. There is little empirical information, relative to other studied topics, that specifically detail what librarians currently view as the best direction for normalizing and sustaining open education practice.

To address this dearth of information and as a preliminary step toward more programmatic intervention, librarians were surveyed regarding their perspectives on open educational resources (OER). Findings suggest that as librarian roles evolve from being gatekeepers of information to becoming more proactive pathfinders of access, their responsibilities and accountable actions are changing as well. This recognition provides a clearer sense of future direction for academic libraries and opens possibilities for new workflows, programs, and services.

Review of the Literature

OER are defined as "teaching, learning and research materials in any medium—digital or otherwise—that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions" (UNESCO 2017). They include a variety of formats and media such as textbooks, syllabi, lecture notes, assignments, tests, projects, audio, video, and animation.

Much of the OER research to-date has focused on cost savings, student and faculty satisfaction, and improved flexibility for instructors (Hilton 2016). Results show that adoption of OER can save students money, provide faculty with greater flexibility for course customization, and encourage student engagement. Five frequently mentioned characteristics of OER materials include the "5Rs," which allow educators to "Retain, Reuse, Revise, Remix and Redistribute" content for educational purposes (Wiley 2014). These characteristics represent the potential for additional benefits from educational resources not commonly found in traditional instructional materials.

OER is also a means to improve and enhance learning and teaching, and it is most effective when coupled with opportunities for feedback and inclusion (Wiley 2014). For example, a large scale (n=21,822) study reported that using OER improved course grades and decreased the number of students receiving failing grades or withdrawing from a course by federal Pell grant recipient students and populations historically underserved by education (Colvard, Watson, and Park 2018). Miller and Homol (2016) examined OER's role in specialized areas, such as online ed-

ucation, where ensuring students have access from the first day of class may be particularly relevant in contributing to successful learning outcomes.

There has not been nearly as much research into other stakeholder perceptions of OER including librarians, instructional designers, IT specialists, bookstore managers, and other ancillary staff. Palmer, Dill, and Christie (2009) and Mercer (2011) provide notable exceptions in providing foundational baseline data for librarians. Additional research is timely because the growing use of OER offers a leadership opportunity for libraries to transform education and to build community (Jensen and West 2015). Libraries have been encouraged to play a pivotal role in assisting with OER adoption from both the bottom up and top down, administratively. Walz (2015) describes several programmatic ways that librarian engagement contributes to OER use. They include creating OER finding, instructional, and pedagogy guides and curating library-selected OER collections. Cross (2017) describes how librarians are frequently becoming more involved with course-based learning objectives and can assist with OER initiatives. For example, librarians' traditional areas of expertise are often well suited to OER support as natural extensions of what they already do in other library activities. This can include roles in tailoring materials, negotiating use, discovering content, locating unique materials, enhancing sustainability, creating digital materials, updating formats and tools, ensuring accessibility, etc.

There have been calls in the literature for OER adoption in specific disciplines (Anderson et al. 2017) and at the state (Bell and Salem 2017; McBride 2019), national (Allen, Bell, and Billings 2017), and international (UNESCO 2017) levels, with roles for librarians to play in each. Scaling OER programs into larger networks, consortia, and partnerships provides motivation for those just getting started with OER and improved evidence of impact and can influence direction for policymakers.

Encouraging and advocating for libraries to establish communities of practice is highlighted as a way to develop a programmatic response for implementation and sustainability (Smith and Lee 2017). Taking full advantage of OER calls for partnerships to be enhanced within institutions among librarians, instructional designers, IT, teaching and learning centers, etc., across institutions (Salem 2017) and beyond.

OER—Critiques and Challenges

Without research on how librarians can be effective using their skills and knowledge for OER use, there are almost guaranteed inefficiencies in program results. Libraries have met with mixed success in their role of supporting OER. These results may be partially due to inertia, disinterest, resistance, or a lack of immediate success. More general critiques of OER include concerns related to unpaid labor, changes in workflow, and unfunded mandates (Crissinger 2015; Pierce 2016; Sanjaya 2017). While many of these issues are not unique to OER and can be found in other areas

of higher education, they are especially important as OER is facing a tipping point in adoption and sustainability. These topics deserve to be reviewed with "eyes wide open" to ensure adherence to best practices related to open principles and tenets espoused by OER advocates, particularly regarding issues such as diversity, equity, and inclusion. OER is also subject to criticism from those who do not want to see wholesale adoption without a deeper look at the foundation and values underpinning the larger education landscape.

Another criticism of OER is that discovery for specific subjects can be more difficult than expected. A plethora of open repositories with uneven quality of materials, questionable authorship, and missing or non-standard metadata contribute to this perspective. It is estimated that less than 10 percent of courses offered at a typical college institution currently have sufficient OER material available (Wiley 2019). This means that librarians may experience more difficulty in OER search and curation than they do with other materials. Fortunately, new OER online search tools, such as the Openly Available Services Integrated Search (OASIS) tool,[1] will help this issue over time, but it can still be problematic in the short term.

Potentially more challenging is a lack of sustained faculty engagement and other barriers in adopting OER (Belikov and Bodily 2016). Faculty, librarians, and other academic support staff may not be adequately trained or knowledgeable about OER, licens-

ing, etc. (Mtebe and Raisamo 2014). Consequently, librarians may experience unprecedented resistance to OER adoption and need new types of professional development to accomplish their OER-related goals.

OER—Toward A Framework for Action

Surveying librarian perspectives can help establish a baseline for change and set direction for a common understanding, shared vision, and more realistic program expectations. ACRL's "2018 Top Trends in Academic Libraries" reframes OER challenges into "opportunities for librarians to cultivate partnerships with faculty in the discovery, advocacy, and preservation of OER" (ACRL 2018). For example, success stories from librarians can be helpful in promoting and supporting open access (OA) and OER (Crozier 2018).

To help with OER development, a "Champion Mindset" has been proposed as part of a prescriptive change management strategy encompassing the following four dimensions (Alberta Open Educational Resources 2018) to encourage deeper engagement of librarians and faculty:

- Focus on Why—understand/analyze user needs and identify "what's in it for them"

- Maintain Objectivity—listen to the positions of others including naysayers

- Engage the Open—encourage early adopters, connectors, enablers who

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1   https://oasis.geneseo.edu/.

are open to the OER message

- Reinforce the Change—build support and networks to strengthen/ sustain change and evaluate the impact

These categories include much of the ethos, logos, and pathos persuasion arguments that have been used since Aristotle. They also resonate with Kotter's change model (2012) and may provide rich ground to nurture and support those working with OER. They may be helpful in supporting librarians charged with building use cases for OER (Colson, Scott, and Donaldson 2017). From an instructional perspective, Woodward (2107) emphasizes advocacy, discovery and OER adoption in the creation of emerging educational models.

Purpose of This Study

Project Background

An online survey of academic librarians was conducted after the first year of a large infusion in funding for open educational resources in a multi-campus system to better determine librarian perceptions and activities related to open resources. A multi-pronged approach was used to leverage this windfall OER funding in several ways.

A centralized, dedicated support team was tasked with coordinating and leading the initiative, and provided support to individual OER leads on member campuses. The support team was led by an executive director, with

contributed time from librarians, instructional designers, and helpdesk and other staff. OER training was offered via conferences, webinars, and individual meetings. Stipends were offered as incentives to faculty involved with OER. Curated weblinks were promoted widely and often augmented by campus library online OER LibGuides. Campus administrators, governance, and other groups were kept informed of the OER initiative and asked to promote it on their campuses to departments and faculty. Student and faculty champion panels were spotlighted in regional roadshows to reinforce and describe the impact on teaching and learning. Professional conferences, workshops, video broadcasts, and other online venues were used to raise awareness about the OER initiative well beyond library confines to encourage, reinforce, and celebrate interest as appropriate.

Scope

This study was designed to gauge librarian engagement in OER and solicit librarian stakeholder feedback about the topic. The primary intent was to provide a static snapshot of the librarian landscape within the broader spectrum of the overall OA environment. The overview that it offers reveals a cursory glimpse into how respondents perceive OER, providing input for considering how to proceed and establish direction for future endeavors.

The survey was not designed to be a deep dive in order to comprehensively capture data about why or how librarians had acquired their OER attitudes, perceptions, or experiences.

Likewise, it did not go into detail regarding background demographics. The survey met librarians where they were, and acknowledged their experience. Generous, voluntary, candid responses to the open-ended parts of the survey provided some of the most valuable insights and suggestions.

Method

A convenience sample of approximately 200 academic librarians on a statewide electronic listserv were invited to participate anonymously in an online Qualtrics survey regarding openness perception and practice. Two reminder emails were sent to encourage participation in the survey. Sixty respondents started the survey; forty-seven completed the survey during the fall of 2018, representing a 23 percent response rate. The majority of respondents were academic librarians and other library staff. Participants agreed to Institutional Review Board (IRB) consent and were able to skip questions or withdraw from participation at any time. The survey took approximately five to ten minutes to complete and consisted of ten multiple-choice and open-ended questions. See survey questions in Appendix 1.

As an incentive to complete the task, four $25 gift cards were awarded to respondents chosen randomly from a pool of those wishing to be included in a separate drawing held at the conclusion of the survey.

The survey was designed to provide insight into librarians' perceptions related to the support, adoption, and usefulness of open activities. The open-ended qualitative responses complemented the quantitative replies and provided additional narrative for discussion.

Results

Survey respondents' experience as academic librarians ranged from 0 to 10+ years. Regarding current status, 18 percent were non-tenure or professional track, 27 percent were pre-tenure, 50 percent were post-tenure, and 5 percent had other classification. Academic ranks included assistant librarian (12 percent), senior assistant librarian (21 percent), associate librarian (38 percent), librarian (26 percent), and distinguished librarian (3 percent).

All reported being extremely comfortable (67 percent) or somewhat comfortable (33 percent) with using technology. The limited sample size did not allow meaningful crosstabs by experience or technology use.Q1. Please rank the ways that librarians contribute to OER success (1 = most important, 8 = least important):

Respondents were asked to rank the ways that librarians contribute to OER success (1 = most important, 8 = least important). Not surprisingly, a majority of respondents (21) believed that assisting faculty in how to find OER resources for their courses is most important. Helping students in the discovery and use of OER materials was also highly prioritized.

Providing workshops, mini-courses, reference guides (LibGuides),

etc. received high marks too. Items that ranked lower included reviewing, editing, and developing OER materials, conducting research on OER, and supporting legislative advocacy and grant writing.

Table 1: Importance Ranking of OER Activities by Librarians

Ranking	1		2		3		4		5		6		7		8		Total Responses
Teaching faculty how to find OER materials for their courses	49%	21	30%	13	12%	5	5%	2	2%	1	0%	0	0%	0	2%	1	43
Assisting students in discovery and use of OER materials	14%	6	9%	4	9%	4	7%	3	16%	7	14%	6	14%	6	16%	7	43
Promoting/sharing success stories about OER adoption	2%	1	14%	6	14%	6	23%	10	21%	9	14%	6	7%	3	5%	2	43
Serving on OER advisory committees; developing policy (e.g., tenure/promotion documents)	9%	4	16%	7	26%	11	12%	5	16%	7	12%	5	5%	2	5%	2	43
Providing workshops, mini-courses, reference guides (LibGuides), etc.	21%	9	19%	8	26%	11	23%	10	9%	4	0%	0	2%	1	0%	0	43
Reviewing, editing, developing OER materials	2%	1	9%	4	9%	4	9%	4	16%	7	21%	9	19%	8	14%	6	43
Conducting research about OER	0%	0	0%	0	2%	1	19%	8	19%	8	28%	12	16%	7	16%	7	43
Supporting legislative advocacy; grantwriting	2%	1	2%	1	2%	1	2%	1	0%	0	12%	5	37%	16	42%	18	43

Note: 1= highest, 8 = lowest

Q2. Do you agree or disagree with the following perspectives regarding OER?

The majority of respondents agreed that:

- they had their employer's support to use OER in teaching and learning (93 percent)

- they already do or intend to use and integrate OER into their role as librarians (90 percent)

- using OER will likely increase the learning outcomes of students (88 percent).

Participants were more evenly divided when asked whether they agreed that:

- using OER is integrated into librarians' responsibilities (54 percent)

- it is easy to become skillful at using and helping others integrate OER into their courses (56 percent)

- they already had the knowledge necessary to use and help faculty integrate OER in their courses (59 percent).
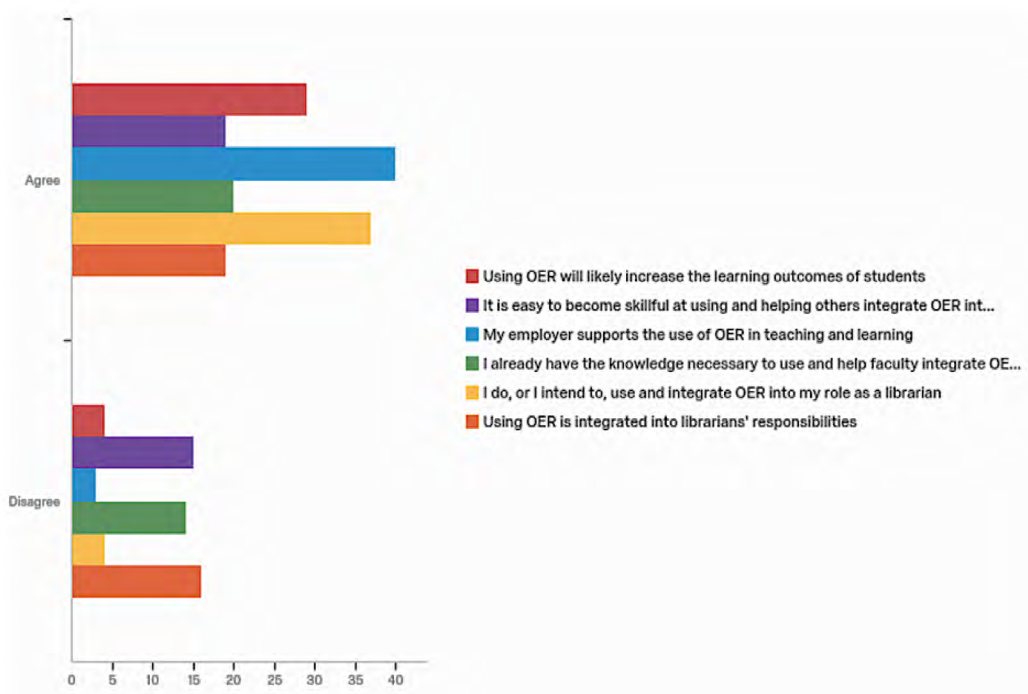
Figure 2A: Librarian Perspectives Regarding OER

Table 2B: Librarian Perspectives Regarding OER

	Statement	Agree		Disagree		Total
1	Using OER will likely increase the learning outcomes of students	88%	29	12%	4	33
2	It is easy to become skillful at using and helping others integrate OER into their courses	56%	19	44%	15	34
3	My employer supports the use of OER in teaching and learning	93%	40	7%	3	43
4	I already have the knowledge necessary to use and help faculty integrate OER into their courses	59%	20	41%	14	34
5	I do, or I intend to, use and integrate OER into my role as a librarian	90%	37	10%	4	41
6	Using OER is integrated into librarians' responsibilities	54%	19	46%	16	35

Q3. Do you agree or disagree with the following reasons for using OER?

Additional questioning revealed that the majority of respondents agreed that OER is a natural extension of the discovery services that libraries have always provided (98 percent), librarians are helpful partners in influencing and encouraging OER initiatives (95 percent), OER can contribute to solving issues of social justice (92 percent), and involvement in OER is a good use of librarian time (92 percent). Conversely, 19 percent believe that the purported value of OER is exaggerated.
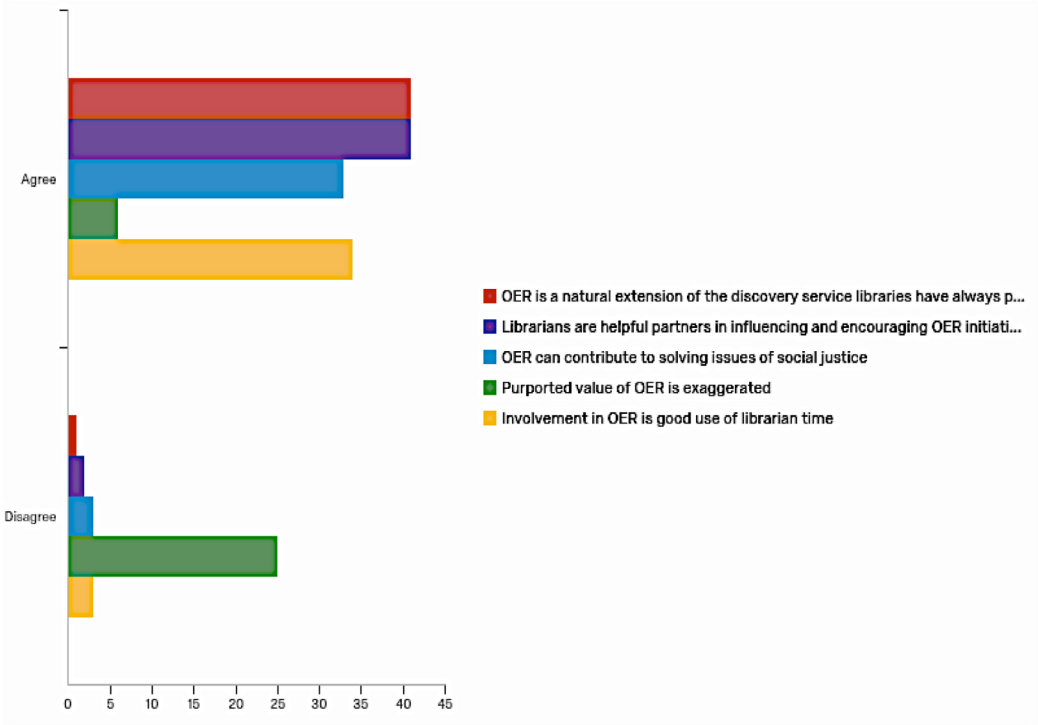
Figure 3A: Librarian Rationale for OER Use

Table 3B: Librarian Rationale for OER Use

	Rationale	Agree		Disagree		Total
1	OER is a natural extension of the discovery service libraries have always provided	98%	41	2%	1	42
2	Librarians are helpful partners in influencing and encouraging OER initiatives	95%	41	5%	2	43
3	OER can contribute to solving issues of social justice	92%	33	8%	3	36
4	Purported value of OER is exaggerated	19%	6	81%	25	31
5	Involvement in OER is good use of librarian time	92%	34	8%	3	37

Q4. Which OER related activities have you participated in since Fall 2017?

Regarding surveyed librarian participation in OER-related activities:

- 20 percent attended or hosted an OER event

- 17 percent assisted scholars in finding openly licensed resources

- 16 percent developed a reference guide (e.g., LibGuide) to explain OA, OER, or other open concepts (e.g., open education, open science, etc.)

- 12 percent assisted or referred patrons with copyright questions related to using OER materials

- 11 percent applied a Creative Commons license and shared it

- 8 percent deposited OER in an institutional or online repository

- Only 3-4 percent of respondents reported presenting an OER session at a conference, helping someone find an open access journal, or publishing an open-access article.

Smaller percentages of respondents indicated they had:

- taught students how to apply Creative Commons licenses to their work

- supported OER group on campus by assigning librarians to serve on OER committee

- attended training on OER resources

- researched/written about open pedagogy

- provided references using OER

- referred patrons to high-quality OER.

Q4 Since fall 2017, please check all of the following you have done

Q4 Since fall 2017, please check all of the following you have done
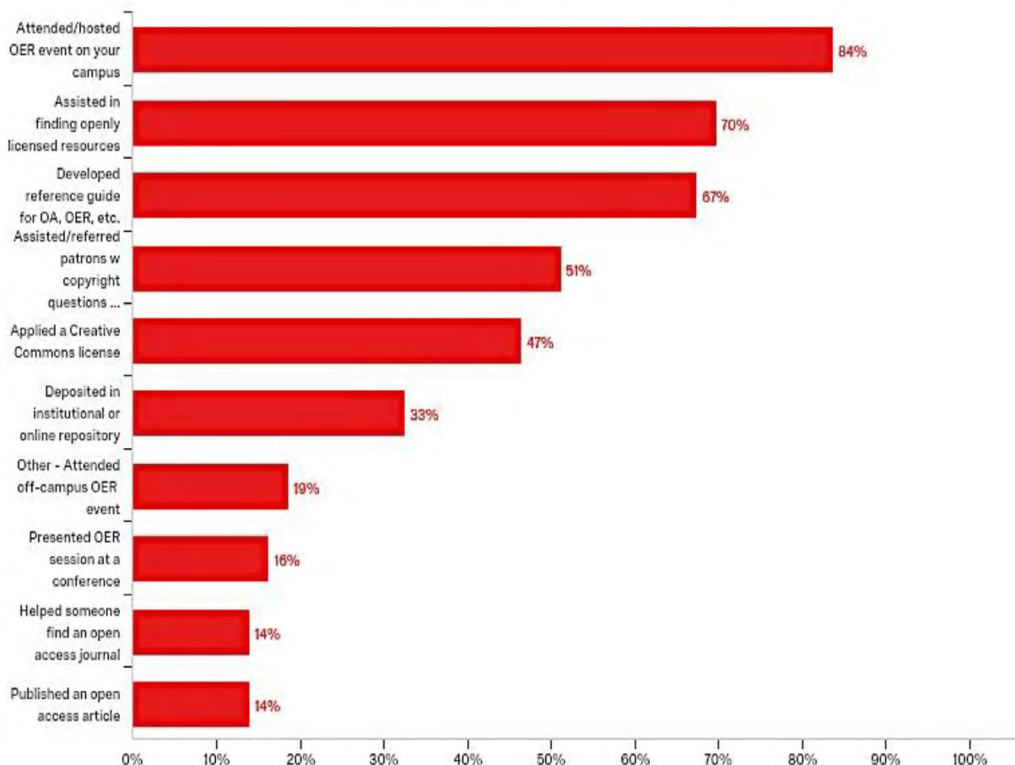
Figure 4A: Librarian Participation in OER-Related Activities

Table 4B: Librarian Participation in OER-Related Activities

Activity	%	Count
Attended/hosted OER-related event on your campus	84%	36
Deposited work in openly licensed institutional or online repository	8%	14
Applied Creative Commons license to something you created, and uploaded for sharing	11%	20
Assisted scholars in finding openly licensed resources to use in their courses	17%	30
Developed a reference guide (e.g., LibGuide) to explain Open Access (OA), Open Educational Resources (OER), or other open concept (e.g., open education, open science, etc.)	67%	29
Helped someone find an open access journal in which to publish	14%	6
Presented OER session at a conference	16%	7
Published an open access article	14%	6
Assisted/referred patrons with copyright questions related to using OER materials	70%	22
Other - please describe	18%	8
Total		178

Q5. How Can OER Initiatives Be Sustained In The Future?

Participants were asked for their comments to the open-ended question, "How can OER initiatives be sustained in the future?" The thirty-two responses are summarized into the following categories. Three replies were non-committal, for example: "don't know" and "can't say." Two comments were negative in tone: "Can't. You get what you pay for" and "there are more important initiatives to work on." The twenty-seven remaining responses included a variety of constructive suggestions, as described below. Some respondents gave multiple suggestions.

Common themes emerged about intrinsic and extrinsic rewards and recognition, budget and staffing, partnerships, training, and advocacy. Comments are listed below according to these themes.

Rewards and Recognition

- Tie OER to discretionary awards, tenure and promotion

- Get OER into tenure and promotion documentation

- There are still too many institutions where publishing in OER journals does not count, or count as much, for those on the tenure track

- An obstacle to promoting OER is that although some untenured faculty may want to become engaged with OER, they shy away because they think OERs are not highly regarded by their departments or will not help them get to tenure

- I think one key factor is that OER materials be considered in tenure packages so that faculty (teaching or otherwise) aren't forced to publish in non-open journals or with non-open publishers on the basis of the journal's or publisher's cachet. Of course, funding is also important – not only to incentivize reconfiguring classes to use OER, but to support OER creation

- Provide faculty incentives for adopting and developing OER courses

- Pay faculty a minuscule amount to create OER curriculum

- Must be campus and system-wide support and incentives for faculty

- Administrations need to find a way to make OER very attractive to faculty and to provide incentive for faculty to take advantage of the OER resource guides we offer

- Institutional support for creation of OERs (release time, stipends for creators) and for repositories or open journals

Budget and Staffing

- Set aside 5% of library materials budget for OER

- I am not sure—I am working with OER Services to create a sustainability plan. One of the things they have advised is to try to find a bit of funding from various departments (so that one department or office is not bearing the brunt of the cost)

- Financial investment in developing and maintaining them

- A dedicated position at our library is needed I think

- Reduce college administrators/ middle manager—put funding into library OER

- One vital need is for library administrators to have the vision to recognize the value of this area and to support it accordingly. Since staff and money are always limited this will mean at times the willingness to critically examine long-standing staffing arrangements in order to ascertain whether or not they justify continuation in the present age and could not perhaps be shifted in this emerging area of OER, institutional repositories.

- Through reference/instruction/outreach—consider converting reference desk hours into OER efforts

Partnerships

- OER has to be recognized as not belonging to the library, but to the faculty. As such, joint cooperation between teaching and learning centers, Library and IT, with support from the Provost and College Senate, will be needed to make OER sustainable in the future

- Deans, Provosts, President need to partner with libraries in promoting creation and discovery of OER

- Continue to assess their value and gather data to demonstrate their value. Collaborate with new stakeholders

- Librarians are on board with OER and are willing to provide help and access to OER materials. However, once the librarians are on board, we are not the target group for OER - the real issue is getting faculty involved to use the library services related to implementing OER in their courses. Librarians can only do so much.

- Explore new models with publishers

- College-wide buy-in

- Continued support from University systems

Training

- Provide training on understanding open licensing; create metadata to better organize and locate openly licensed materials

- More education for librarians and faculty and a unified location of OER and resources

- Librarians must be proactive about showing faculty and students how OER can benefit them through programming and outreach. If they are to be leaders in these initiatives, they must be knowledgeable about the topics surrounding OER and exemplify how it can be used to positively impact the learning environment

- Funding for workshops to inform educators about value of and how to implement

- Provide professional development opportunities for librarians and faculty

- Additional professional development as the OER landscape changes plus institutional support for OER initiatives

- Educate faculty on copyright

Advocacy/Other

- Key stakeholders (faculty governance, faculty, Academic Affairs, library directors and librarians, students) need to be involved in campus OER initiatives

- Form a campus committee through faculty governance

- Tag the OER courses with an OER attribute in the course registration system

- Create procedures for reviewing OER syllabi to assess if they meet the criteria to be labeled an OER course

- Support from OER Services has been crucial and should continue

- Have discussions with chairs/deans, tenure and promotion committees, college governance committees, to stress the importance of supporting faculty who publish and develop OER materials

- Advocates need to provide clear information about the value of "open" to their stakeholders and have discussions with the hope of changing the skeptics' perceptions of open scholarly publishing and open educational resources. In time, there will be more peer-reviewed open resources available to help strengthen the case for open educational resources.

Q6. Other comments regarding librarians perspectives on OER:

The opportunity to provide additional open-ended comments about OER or the study produced a number of other suggestions and more feedback. These unfiltered comments are powerful in helping to convey tone as well as content and are shown below.

One respondent offered several

ideas for increasing librarian advocacy:

Here are some ways librarians can advocate for OER.

- Become informed about the open movement. Read! Network! Attend conferences, workshops, and webinars! Take the Creative Commons Certificate course (https://certificates.creativecommons.org)!

- Reference Librarians: When library users ask for resources, in addition to finding resources in the library collection, recommend works in the public domain and openly licensed materials when possible.

- Catalogers: Include records for open access journals in the catalog.

- Acquisitions: Curate open resources. Why buy a print book if it's freely available in the public domain?

- Instruction Librarians: When collaborating on designing a library workshop with the professor of the course, recommend including open resources when possible.

- Create LibGuides with resources and information about open educational resources, open access, Creative Commons, public domain works, etc.

- Reach out to faculty one-on-one to discuss open educational resources. Bring a print copy of an OpenStax (https://openstax.org/) textbook that fits with a course the professor is teaching. Let her/him know that it's freely available online.

- Offer workshops and other professional development opportunities for faculty.

- Engage in conversations about open values, open access, and open education with your library director and library colleagues.

- Provide your fellow librarians with resources like the OER: A Field Guide for Academic Librarians (https://commons.pacificu.edu/pup/3/).

Modeling good practice by incorporating OER in library instruction was suggested:

Use OER in Library Research Methods and Information Literacy courses.

Ensuring librarians are up-to-date and knowledgeable in searching for quality OER was mentioned:

> Librarians need to learn good OER sites, repositories, search tools to best assist faculty. Add OER searching to reference work. Care and go beyond simple Google search for OER. Engage the faculty as partners.

> Having a librarian available to help with OER is a good thing, but it can sometimes be too much for faculty members (especially if working with a specific librarian is TOO HARD). Also, librarians have to care about what they're doing and not just do a half-hearted job of their searches. Doing a Google search and pointing to the top resources without knowing something about the field isn't useful either.

As one advocate commented:

> Librarians seem uniquely situated to have a strong impact on the future of OER and helping to make it more easily searchable; also in helping to continue to remove the stigma of openly licensing research vs. using traditional publishers. We (librarians as a profession) also understand the importance of freely and widely available information in a timely manner (not behind a pay-wall or embargoed for time periods) to help move research forward.

Direct impact was stated as:

> I see the largest impact of OER on the student's bottom line for classroom materials.

The need to include student voices was mentioned:

> At our specific institution and, a takeaway from the OER meeting, having faculty involvement along with their leadership for OER initiatives is critical. I would also recommend student involvement.

At least one respondent was unsure of OER content:

> Not really certain how useful these materials are.

One person did not want to lose traditional search methods and said:

> Should stick to tried and true methods of scholarship, there is too much "junk" out there already.

Another respondent wrote:

> I think it will be a challenge to change librarians' perceptions regarding their involvement in curricula material.

A common OER perception was described this way:

> Using library subscription resources that are 'free' to end-users should also be a part of the OER initiative for college libraries—I am concerned that focusing on freely available resources only, will continue to encourage and teach users to rely on free Internet sources and disregard the valuable resources libraries offer. The OER initiative is to reduce costs to students—incorporating database articles and other readings into a course should be part of this—or we are going to OER ourselves out of business.

Staying open to the potential for OER was reflected by this statement:

> I'd like to learn more. It's a buzzword for sure but sometimes I'm not really sure how I can personally use it to make a difference in my own work.

Discussion
Limitations

This survey collected discrete data across the multi-institution organization, and while it provides answers, it also triggers additional questions. It would be helpful to learn why more librarians did not participate

in the survey, as well as have the opportunity to pursue follow-up queries encompassing a much broader number of topics about how academic librarians relate to OER.

Although some of the survey's prompted questions generated responses that were not very surprising, they remain useful in confirming shared viewpoints. The survey sections with open-ended questions probed a bit further, and allowed librarians to comment and brainstorm about a wider range of topics of concern. Since there were no "right or wrong answers" about opinions, attitudes, or perceptions, all feedback was valuable.

Future research on this topic should also encompass a larger sample to improve reliability and validity. Better demographic identifiers would allow comparisons by librarian title, library experience, age, gender, technology use, etc. Comparing perspectives of librarians with other stakeholders such as instructional designers, centers for learning and teaching staff, and others could provide additional viewpoints when planning. This study was also conducted after the first year of substantially increased funding of OER initiatives and repeating the survey in the future may provide examples of developmental changes in the program over time and longer-term impacts.

Summary

The results of this brief survey function as a springboard that can be used to translate themes into potential follow-up action items. Due to many appropriate unique paths that can lead to successful results, it was evident that librarians, as a whole, prioritize flexibility as OER activities are embedded or transformed into new education models.

Survey comments revealed that individuals within the librarian community have different mindsets as well as different skillsets. Some perceived obstacles to embracing OER could potentially be readily tackled in a straightforward manner, while other nuanced, layered, systemic issues are more complex and justifiably require more time and effort to address. Librarians conducting a "listening tour", where they meet with instructors regarding course materials, may provide insights into additional faculty perspectives on OER needs (Bell and Johnson 2019). Sharing ideas about lessons learned, as well as constructive suggestions for items to include in an academic librarians' well-stocked OER toolkit, are important parts of the collaborative process required for successful OER implementation.

This study affirms that there is much more work to be done regarding the perceptions and practice of openness among academic librarians. It highlights that while there is general consensus in certain areas, by contrast, in other aspects, surveyed librarians vary significantly in being ready, willing, and able to embrace OER.

The quantitative questions garnered several salient insights that were especially noteworthy. There were issues where participating librarians

were almost evenly split in their agreement or disagreement with OER-related statements. In the past year, less than 20 percent of surveyed librarians had participated in ten of the most common OER activities, indicating possible room for growth. Although it was a limited viewpoint, 20 percent of the respondents believe that the value of OER was overrated. The qualitative open-ended questions soliciting other comments yielded additional relevant observations regarding recommendations for practice and policy.

Based on the results of this and other published research, there are some innovative ways that librarians are infusing components of openness into their work within academic settings. Focusing on outreach, promotion, and planning to support openness in instruction, discovery, research, and preservation are just some of the ways librarians are adding value to the open education enterprise. For example, planning OER faculty learning communities (https://innovate.suny.edu/sunyoercommunitycourse/), incorporating OER into library liaison work, and identifying OER faculty and student champions can help amplify program benefits. Underscoring the multi-disciplinary, collaborative effort needed to embrace and sustain openness also requires significant ongoing flexibility, motivation, and upkeep for success.

This survey used in this study may be easily adapted by other institutions striving to encourage new ways of thinking about librarianship and reshaping library services in an open

education world. It can be used by any size institution, publicly or privately funded, in any geographic location, at any point in time in their OER implementation process. Organizations can use the results to inform plans for further adoption of open initiatives at their respective institutions. Respecting organizational culture, governance, and campus politics as well as how OER bests fits in an institution's ability to incorporate change, are some of the more intangible keys to program success. Developmental transformation takes time, and along with other constraints, such as budget or other competing priorities, requires sustained commitment by the library and campus stakeholders.

Conclusions and Recommendations

Embedding "openness" as a core library value aligns with most institutions' strategic goals, and can help in building a bridge to library programs and services of the future. Identifying and sharing best practices encourages scholarly communications to support open educational resources and open scholarship, and highlights the need for future integrated planning efforts to support other digital scholarship initiatives.

The recommendations below for advancing the OER conversation are neither comprehensive nor exhaustive. It is not required that these takeaways be done in any particular order. Many are interdependent, and are best viewed as a menu of possibilities.

- Enlist and encourage librarians as change agents early in the process

- Continue to encourage OER use in tenure and promotion reviews

- Cross train for sustainability

- Use library/instructional design/ teaching and learning center teams as support networks

- Develop coalition of partnerships with willing faculty and students

- Embed openness in scholarly communications as appropriate

- Reward early adopters; show appreciation for champions including students

- Recruit peer-to-peer OER ambassadors to carry the message

- Track impact on institutional goals such as retention, grades, graduation rates, alumni placement, etc.

- Identify OER in course catalogs and registration materials

- Offer continuous online OER training for those just getting started

- Build in a refresh cycle for existing course transformation, and rubrics for new courses

- Include feedback systems and analytics as appropriate

- Coordinate with IT for compatibility, integration and support

- Keep a sample of easily accessible OER (e.g., OpenStax materials) in the library for faculty to review at their convenience.

- Consider promoting OER benefits for targeted audiences or needs (e.g., long distance learners)

- Strengthen and share research about OER best practices

- Recognize social justice and policy implications of OER use

- Document and celebrate OER success stories; mentor and help others

OER has the distinction of being one of the most tangible efforts in the open environment that resonates with librarians to date. Moreover, it is being adopted at the K-12, secondary, as well as the college level. Librarians can help with OER development at each of these levels, and can assist in graduate education and library schools to instruct and inspire new generations of teachers about discovering, evaluating, and using open resources.

OER may become more ingrained in instruction, fizzle, or be co-opted into larger educational reform efforts such as the move toward open pedagogy (DeRosa and Jhangiani 2017). OER may follow a typical technology diffusion model of early adopters and laggards (Rogers 2003). It has become part of the larger open movement conversation as part of open access, open pedagogy, open data, etc. (Scholarly Publishing and Academic Resources Coalition (SPARC n.d.)

While the impact of large, diffuse educational initiatives like OER are notoriously difficult to quantify, enough small successes are being documented to justify additional work in the area.

Student achievement, retention, and graduation rates are among the variables that will help determine success in the future. Additional evaluation and assessment of these efforts will be needed for a deeper understating of what works well and what does not in various situations.

Tapping librarians' perceptions regarding OER is a first step in working toward deeper engagement, growth, and development of OER programs. It provides a quick view of librarians' tolerance for risk, acceptance of change, and willingness to develop new partnerships for student success. It can act as a barometer for gauging development of future academic library services and act as a catalyst for shaping policy and practice.

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Appendix 1

OER Librarian Perceptions and Practices Survey

Q1. Please rank the ways that librarians contribute to OER success (1 = most important, 8 = least important):

_____ Teaching faculty how to find OER materials for their courses

_____ Assisting students in discovery and use of OER materials

_____ Promoting/sharing success stories about OER adoption

_____ Serving on OER advisory committees; developing OER policy (e.g., tenure and promotion documents)

_____ Providing workshops, mini-courses, reference guides (LibGuides), etc.

_____ Reviewing, editing, developing OER materials

_____ Conducting research about OER

_____ Supporting legislative advocacy; grantwriting

Q2. Please respond to the following:

Statement	Agree	Disagree	I Don't Know
Using OER will likely increase the learning outcomes of students	○	○	○
It is easy to become skillful at using and helping others integrate OER into their courses	○	○	○
My employer supports the use of OER in teaching and learning	○	○	○
I already have the knowledge necessary to use and help faculty integrate OER into their courses	○	○	○

	Agree	Disagree	I Don't Know
I do, or I intend to, use and integrate OER into my role as a librarian	○	○	○
Using OER is integrated into librarians responsibilities.	○	○	○

Q3. Please respond to the following:

Statement	Agree	Disagree	I Don't Know
OER is a natural extension of the discovery service libraries have always provided	○	○	○
Librarians are helpful partners in influencing and encouraging OER initiatives	○	○	○
OER can contribute to solving issues of social justice	○	○	○
Purported value of OER is exaggerated	○	○	○
Involvement in OER is good use of librarian time	○	○	○

Q4. Since fall 2017, please check all of the following you have done:

☐ Attended/hosted OER-related event on your campus

☐ Deposited work in openly licensed institutional or online repository

☐ Applied Creative Commons license to something you created, and uploaded it for sharing

☐ Assisted scholars in finding openly licensed resources to use in their course or coursework

☐ Developed a reference guide (e.g., LibGuide) to explain Open Access (OA), Open Educational Resources (OER), or other open concept (e.g., open education, open science, etc.)

☐ Helped someone find an open access journal in which to publish

☐ Submitted to an open access journal

☐ Published an open access article

☐ Assisted/referred patrons with copyright questions related to developing OER materials

☐ Other—please describe _____

Q5. How can OER initiatives be sustained?

_____

Q6. Please indicate your current status:

☐ Non-tenure or professional track

☐ Pre-tenure

☐ Post-tenure

☐ Other—Please describe _____

Q7. Please enter your academic rank if applicable:

☐ Assistant Librarian

☐ Senior Assistant Librarian

☐ Associate Librarian

☐ Librarian

☐ Distinguished Librarian

☐ Other—Please describe _____

Q8. Years of academic librarian experience:

☐ 0-1

☐ 2-5

☐ 6-10

☐ 10+

Q9. Please rate your comfort level with technology

☐ Extremely comfortable

☐ Somewhat comfortable

☐ Neutral

☐ Somewhat uncomfortable

☐ Extremely uncomfortable

Q10. Other comments regarding librarians' use of OER:

_____

Thank you for your response regarding open practices in higher education.

Open Education Librarianship: A Position Description Analysis of the Newly Emerging Role in Academic Libraries

Amanda C. Larson

The Ohio State University

Abstract

According to the latest Babson Survey, *Freeing the Textbook: Educational Resources in US Higher Education*, "faculty awareness of OER has increased every year, with 46 percent of faculty now aware of open educational resources, up from 34 percent three years ago" (Seaman and Seaman 2018). While open educational resources (OER) gain traction with faculty who are looking to lower costs for their students and re-engage with their pedagogy, academic libraries are creating a variety of open or affordable textbook programs to help increase the use of OER or low-cost materials as replacements for high-cost traditional materials. Some libraries are creating specific positions to support these initiatives that aim to help faculty who want to adopt, adapt, or author OER. As more of these roles emerge, it raises questions about what the field perceives as the role of an Open Education or OER librarian, and the support that libraries provide OER initiatives. To explore these concerns, I collected position descriptions for librarians whose role it is to support OER initiatives into a corpus. I applied deductive thematic analysis to code it while investigating four main questions: 1) What

inspires academic libraries to hire OER-related support? 2) What skills do they anticipate applicants to possess? 3) Where do these positions fit within the organization chart of the library? 4) Is there a standard scope of work that emerges from the corpus? In addition to these four questions, this research also explored the expectations for librarians in these roles to change faculty's perception of OER through outreach and if they are expected to run burgeoning grant initiatives to launch adoption, adaptation, or authoring efforts at their institution.

Bibliotecología en educación abierta: un análisis de descripción de posición del nuevo rol emergente en las bibliotecas académicas

Resumen

Según la última encuesta de Babson, Freeing the Textbook: Educational Resources in US Higher Education, "la conciencia de los docentes sobre los REA ha aumentado cada año, con un 46 por ciento de los docentes ahora conscientes de los recursos educativos abiertos, en comparación con el 34 por ciento hace tres años" (Seaman y Seaman, 2018). Mientras que los recursos educativos abiertos (REA) ganan fuerza con el profesorado que busca reducir los costos para sus estudiantes y volver a comprometerse con su pedagogía, las bibliotecas académicas están creando una variedad de programas de libros de texto abiertos o asequibles para ayudar a aumentar el uso de REA o materiales de costo como reemplazos de materiales tradicionales de alto costo. Algunas bibliotecas están creando posiciones específicas para apoyar estas iniciativas que tienen como objetivo ayudar a los docentes que desean adoptar, adaptar o crear REA. A medida que surgen más de estos roles, surgen preguntas sobre lo que el campo percibe como el rol de un bibliotecario de Educación Abierta o Recursos de Educación Abierta, y las bibliotecas de apoyo brindan iniciativas REA. Para explorar estas preocupaciones, recopilé descripciones de puestos para bibliotecarios cuyo papel es apoyar las iniciativas REA en un corpus. Apliqué análisis temático deductivo para codificarlo mientras investigaba cuatro preguntas principales: 1) ¿Qué inspira a las bibliotecas académicas a contratar apoyo relacionado con REA? 2) ¿Qué habilidades anticipan que poseen los solicitantes? 3) ¿Dónde

encajan estas posiciones dentro del organigrama de la biblioteca? 4) ¿Existe un alcance estándar de trabajo que surge del corpus? Además de estas cuatro preguntas, esta investigación también exploró las expectativas de los bibliotecarios en estos roles para cambiar la percepción de los REA por parte del profesorado a través de la divulgación y si se espera que ejecuten iniciativas de subvención para lanzar iniciativas de adopción, adaptación o autoría en su institución.

Palabras clave: biblioteconomía educativa abierta, recursos educativos abiertos, percepciones, iniciativas de subvención REA, divulgación REA

开放教育图书馆学：一项针对学术图书馆中新兴角色的职位描述分析

摘要

据最新的巴布森调查（Babson Survey）出版的书籍《免除课本费用：美国高等教育中的教育资源》，"教师对开放教育资源（OER）的了解每年都在增加，46%的教师如今已经了解OER，这一数字在三年前为34%"（Seaman and Seaman, 2018）。OER对那些寻求减少学生费用并重新进行教学参与的教师而言具有吸引力，与此同时，学术图书馆正在创建一系列开放或可负担的课本计划，帮助增加OER或低成本材料的使用，以替代高成本的传统课本材料。一些图书馆正在设立特定职位，以支持这些旨在帮助想要采用、改编或编写OER的教师的倡议。随着更多这类角色的出现，相关疑问也随之产生，即该领域认为开放教育图书馆员或开放教育资源图书馆员的作用是什么，以及图书馆为OER倡议计划提供的支持是什么。为探究这些疑问，我收集了那些以支持OER倡议融入语料库为职责的图书馆员的职位描述。我用演绎性主题分析对其进行编码，同时调查了四个主要疑问：1）是什么启发了学术图书馆招聘相关人士提供OER支持？2）它们所期望的应聘者应具备的技能是什么？3）这些职位在图书馆组织结构图中占据什么位置？4）语料库中是否有一个标准的工作范围？ 除这四个疑问之外，本研究还探究了对这些图书馆员的期望，即通过外展服务改变教师对OER的了解，以及图书馆员是否应管理新兴经费倡议以启动各自机构中采用、改编或编写OER的相关工作。

关键词：开放教育图书馆学，开放教育资源，观念，OER经费倡议，OER外展服务

Introduction

When new roles in academic libraries emerge to meet the changing needs of their institution, it is common for librarians to analyze position descriptions to get a sense of the challenges, needs, and trends that these new positions represent. Academic libraries created a new position focused on supporting open and affordable education in response to the textbook affordability crisis. A national survey, *Freeing the Textbook: Educational Resources in US Higher Education* reports that "61 percent of all faculty, 71 percent of those teaching large enrollment introductory courses, and 73 percent of department chairpersons, 'Strongly Agree' or 'Agree' that 'the cost of course materials is a serious problem for my students'" (Seaman and Seaman 2018). The position created within the library dedicated to supporting faculty transitioning to open and affordable educational materials is the Open Education Librarian or Open Educational Resources (OER) Librarian. This study looks at library position descriptions for these emerging roles within academic libraries to answer the following questions: What is the impetus for libraries to hire for OER-related support? What skills do they anticipate applicants having? Where do they position these roles within the library? Is there a standard scope of work that emerges from the corpus? Do these roles focus on grant initiatives, outreach, or a combination of both? By using both deductive thematic analysis and inductive thematic analysis, this research project investigates these questions.

Literature Review

While there has been no other job analysis done on Open Education and OER Librarian position descriptions, there is a long-standing tradition of position analysis in library research to draw on. For this project, I consulted both job analysis studies for other newly emerging positions, like Instructional Design Librarian and Data Librarians, and a broader study by Triumph and Beile (2015) for context on general library hiring trends. The studies consulted were Shank's (2006) work on the analysis of Instructional Design Librarians position descriptions and Neeser and Theilen's (2019) work on the analysis of Data Librarian position descriptions. Shank's (2006) work provided me with an expectation about what the prospective search and collection of position descriptions might yield. His study notes two challenges that make collecting data about newly emerging positions more complex than roles long established in academic librarianship. The first challenge is that "there is no agreed-upon, authoritative consensus for defining the title of the position, the qualifications, or the responsibilities" (Shank 2006, 517). The second challenge is that "it was necessary to search many diverse sources starting from the period when the first position announcement was listed" (Shank 2006, 518). With these factors noted, I created inclusion criteria that set a date range for when the positions were posted and took advantage of a broad swath of sources to collect position descriptions. The other reality that Shank's

(2006) work prepared me for was that there might not be very many position descriptions to analyze since the role of Open Education or OER Librarian was so new. In Neeser and Theilen's (2019) work, I identified the methodology for the project —deductive thematic analysis—and a modifiable Master Codebook. Their presentation "Using Deductive Thematic Analysis to Examine Textual Documents" lays out not only what deductive thematic analysis is, but also how one can use it to code library position descriptions. In addition, Neeser and Theilen (2019) demonstrate what a large corpus of positions would look like and give a percentage of how much to code, in their case 10%, before revising the identified codes. In their Master Codebook, they provide operational definitions for each code and instructions for how to code for each theme identified (Neeser and Theilen 2019). Before starting the analysis, I also needed to learn more about coding data for themes. To do this, I identified literature that explained what specifically thematic analysis looks for and practical guides on how to do a thematic analysis, such as Maguire and Delahunt's (2017) "Doing A Thematic Analysis: A Practical, Step-By-Step Guide For Learning And Teaching Scholars" and Bree and Gallager's (2016) "Using Microsoft Excel To Code And Thematically Analyse Qualitative Data: A Simple, Cost-Effective Approach," which lead to discovering Braun and Clarke's very explicit guide on how to conduct a thematic analysis. While doing the deductive analysis of the data, I realized that in order to answer the question about the required

skills that successful applicants would have, I needed to do an inductive thematic analysis of the skills to see what themes organically arose from the data, so I reviewed these guides again to plan for an inductive pass.

Method

For this project, I collected library position descriptions requesting applicants to apply for positions that support the adoption, adaptation, and authoring of OER within the library to build the corpus for analysis. I then applied both deductive and inductive thematic analysis in order to code the positions to answer the research questions. In order to prepare for the collection of position descriptions, I established inclusion criteria that the job advertisement must be for a full-time position located in an academic library in the United States, 50% of the job responsibilities or duties must be related to OER, and the advertisement must have been posted between 2017 and 2019, plus a curated dataset of position descriptions created by Fields et al. (2014a) at the BC Summit on Open Textbooks, which is maintained as new positions get posted. I chose to include this dataset for two reasons: due to the ephemeral nature of job description postings and because it was impossible to tell when a listing initially was posted unless there was a date included. I collected position descriptions through postings on listservs, the OER digest, direct emails, and many major job-listing websites. After the cutoff collection date, there were thirty-three position

descriptions to analyze. After dedupli-cation and removing descriptions that were inaccessible, twenty-four posi-tions remained for analysis.

Drawing on the six phases of thematic analysis from "Using The-matic Analysis in Psychology," the first step was to become familiar with the data (Braun and Clarke 2006, 87). Be-fore tackling familiarity, however, it was essential to identify some codes and at-tributes before starting so that the anal-ysis was deductive (Nesser and Thielen 2019). As such, I established that the starting codes would be:

1) Does the position description list why the library is hiring for this position?

2) What are the skills required for the position?

3) To whom does this position report?

With those initial codes in place, it was time to become familiar with the data—in this case, the corpus of posi-tion descriptions collected. The first question was easy to code for with a simple "yes" or "no," and if "yes," then "explain the rationale." The third ques-tion was also easy to code for and in the same vein had a "yes" or "no," and "if yes, list the title of the position this applicant would report to." The sec-ond question, however, required much more care, as the list of skills listed in the position descriptions varied greatly. For the skills section, it became quickly apparent that I needed to do an induc-tive pass of the data in order to identify the skills and any thematic overlap they

might have. In order to answer the skills question, I did the first pass at coding the skill data and ended up identifying fifty-one skills across the twenty-four position descriptions.

Then themes were identified across those fifty-one skills and were fit into nine thematic categories that or-ganically emerged from the data. The categories are Scholarly Communica-tion, Publishing, Instructional Design, Open Education, Web Development, Outreach, General Librarianship, and Other. An "Other" category was creat-ed for skills that were specific to open education but did not fit into the other categories. For example, some positions called directly for experience running or establishing start-up initiatives, or expe-rience in working in a grassroots envi-ronment. In my experience, asking such might suggest that while they are hiring for a position, their initiative is most likely new and the position will be out-reach-focused at first, in order to build a community around open education.

After applying those categories, the next step was to identify a possi-ble overlap of skills between categories. Some skills did overlap; in particular, skills that were in the Scholarly Com-munications section often overlapped with skills listed in the Open Education or Publishing sections.

At this point, it was time to start recording the data for the twen-ty-four position descriptions. To do this, I modified the Master Codebook created by Nesser and Thielen (2019) for their dataset for data librarian po-sition descriptions by swapping out the

Table 1. Skills—bulk first pass

Project Management	Sustainability Plan
Grant Writing	Leadership
Open Educational Resources (OER)	OER Repositories
Licensing	Permissions
Copyright	Evaluation of OER
Social Media	Liaison
Collaboration	Independent Work
Instruction	Teamwork
Instructional Design	Salary
Pedagogy	Prioritization
Open Access	Programming Language
Trends and Issue related to Open Education	Start Up Initiatives
Outreach	Embedded Librarian
Searching for OER	Library Guides
Assessment	Community of Practice
Program Development	Supervision
Open Education Week	OER Working Group / Committee
Workshops	Reference Desk
Legislation	Institutional Repositories
Accessibility	Open Access Week
Policies	Open
Publishing	Positive Service Attitude
Environments – grass roots	Fair Use
Learning Management System	
Enthusiasm	
Web Development	
Track cost savings	
Conference Planning	

Table 2. Skills—thematic categorization

Scholarly Communication	Licensing, Copyright, Fair Use, Open Access, Legislation, Policies, Institutional Repositories, Open Access Week, Permissions,
Publishing	Project Management, Program Development, Publishing
Instructional Design	Pedagogy, Instructional Design, Assessment, Accessibility, Learning Management System,
Open Education	Sustainability Plan, Track Cost Savings, OER Repositories, Searching for OER, Evaluation of OER, OER Working Group/Committee, Community of Practice, Open
Research	Grant Writing, Trends and Issues Related to Open Education,
Web Development	Programming Languages, Social Media, Web Development, Library Guides, Web Page Maintenance,
Outreach	Open Education Week, Workshops, Outreach,
General Library	Instruction, Reference, Leadership, Independent work, Teamwork, Embedded Librarian, Supervision, Reference Desk, Enthusiasm, Positive Service Attitude, Conference Planning, Liaison, Collaboration,
Other	Start up Initiatives, Environments – Grass Roots,

Table 3. Skills—thematic overlap

Project Management (P) (OE) (GL)	Sustainability Plan (OE) (P)
Grant Writing (R)	Leadership (GL)
Open Educational Resources (OE)	OER Repositories (OE)
Licensing (SC) (OE)	Permissions (SC) (OE)
Copyright (SC) (OE)	Evaluation of OER (OE)
Social Media (P)	Liaison (GL)
Collaboration (GL)	Independent Work (GL)
Instruction (GL)	Teamwork (GL)
Instructional Design (ID)	Salary (GL)
Pedagogy (ID)	Prioritization (GL)
Open Access (SC)	Programming Languages (WD)
Trends and Issue related to Open Education (R) (OE)	Start Up Initiatives (Other)
Outreach (O)	Embedded Librarian (GL)
Searching for OER (OE)	Library Guides (WD) (GL)
Assessment (ID) (OE) (WD)	Community of Practice (OE)
Program Development (P) (OE)	Supervision (GL)
Open Education Week (O) (OE)	OER Working Group / Committee (OE)
Workshops (O) (GL)	Reference Desk (GL)
Legislation (SC)	Institutional Repositories (SC)
Accessibility (ID) (WD) (OE) (P)	Open Access Week (SC) (O)
Policies (SC)	Open (OE)
Publishing (P) (OE)	Positive Service Attitude (GL)
Environments – grass roots (other)	Fair Use (SC) (OE)
Learning Management System (ID)	Web Page Maintenance (WD)
Enthusiasm (GL)	
Web Development (WD)	
Track cost savings (OE)	
Conference Planning (GL)	

data librarian themes for the identified open education themes. They ended up with forty-one codes in their position descriptions, but because of the weird overlap that Open Education positions have with traditional librarianship and scholarly communication, this projected ended up with fifty-three codes from the position descriptions.

Discussion

The first theme coded for using deductive analysis (analysis tied to pre-defined questions) was to ascertain if the position descriptions list why the library is looking to hire someone to advocate for open education at their institution. Only four of the position descriptions provided a rationale for the library's interest in creating the role. The rationales ranged from a new strategic direction, a continuation of their commitment to reducing the cost of attendance for its students, or a new commitment to advancing open education and OER. The overall lack of rationales provided in the position description suggests that the libraries posting these positions may not feel the need to explain their rationale, have not explored their need to hire for these positions, or do not feel that it is necessary to divulge that information in the position description. From this corpus, it is unclear as to why libraries are hiring for

these positions, but I believe that while not explicitly stated in the job postings themselves, it is fair to assume that it is partially because of the increasing trend of affordability initiatives in higher education. It would be interesting to pair this research with an in-depth look at the strategic plans of the institutions posting these jobs in the future to see if the positions match up with the strategic priorities of the library or more broadly the institution.

The second deductive theme about the skills that libraries think are required to do the work of an Open Education Librarian or OER Librarian required an inductive analysis pass to identify the skills and place them into thematic categories to start to try and identify a scope of work. Looking at the fifty-one skills from across the twenty-four position descriptions, it is challenging to say precisely what the work looks like in each institutional context. As noted in the Methods section, the resulting nine categories of work— Scholarly Communication, Publishing, Instructional Design, Open Education, Web Development, Outreach, General Librarianship, and Other—give a sense that the work has not yet really coalesced into a standard scope of work. Some of the positions weighed heavily toward outreach to raise awareness about OER, some of the positions weighed heavily towards establishing, maintaining, and assessing burgeoning publishing programs, whereas others are still kitchen sink positions with many general library duties thrown in on top of having an overarching OER focus. One goal of this research was to figure out if there was a standard scope for an Open Education Librarian, and if so, what it is. Based on the results of coding the data, it is likely too soon to tell, but what is apparent is that there are outreach positions, there are publishing positions, and there are combinations of both. Outliers among the positions were descriptions that included experience with grant-writing that were tied to positions that were either grant-funded (for example the NC Live position) or had responsibilities for making sure that the programs initiated met legislative mandates (for example the California State University Dominguez Hills position). Some positions were half related to open education and half related to more traditional librarianship, like reference and instruction. The expected breadth of skills candidates should have in order to fill these roles may also be a significant indicator of the potential for burnout in these newly emerging positions. From my own experience, it was challenging to balance undergraduate library instruction with a burgeoning grant-based publishing initiative. It will be interesting as more librarians work in new open education positions to see how they change over time and maybe even coalesce into specific types of open education librarianship (for example, Open Education Outreach Librarian, Open Education Publishing Librarian, etc.).

The third deductive theme coded for was whom the applicant would report to if hired. Of the twenty-four position descriptions analyzed, sixteen listed whom the applicant would report

to directly. Four of the positions would report directly to the Library Director, Executive Director, or Associate University Librarian. The rest would report to the head of a department. Some of the departments included are Outreach & Instruction, Digital Scholarship, and Electronic Resources & Scholarly Communication. I expected that most of the positions would fall into the Scholarly Communications departments of these institutions (if they have one); it was surprising to me when they did not. My surprise stems from the fact that the overlap between Scholarly Communication (often the support mechanism for Open Access [OA] initiatives around open publishing research) and Open Education (OE) is extensive. I recommend Anita Walz's (2019) chart "Differentiating Between Open Access and Open Educational Resources" for a more in-depth look at how OA and OER overlap and differ. However, some commonalities for librarians in both of these roles would be performing outreach duties, advising folks about copyright and licensing, and potentially supporting academic publishing. The broad swath of potential managers in these position descriptions might also suggest that libraries do not yet know where these positions fit within the library unit.

Conclusion and Future Research

In conclusion, it is clear that while these roles in academic libraries are becoming more prevalent, a standard scope of work has not yet emerged across academic librarianship. As more and more librarians take on these roles fulltime and work on defining the scope of what they do in these roles, perhaps a standardized scope will emerge over time. However, note that there is currently an attempt to standardize a baseline position description for an OER librarian/advocate that includes specific responsibilities, skills, minimum qualifications, and preferred qualifications, which serves as an excellent starting point for writing a position description for this work (Fields et al. 2014b). The data shows that there are several ways of scoping the work that librarians commonly perform in these position descriptions, mainly publishing, outreach, or some combination of the two. It is also worth noting that there is also no standardized reporting structure for these positions. Instead, it varies library by library, based on their institution's specific context. This study is not representative of all of the librarians who work as advocates for open education or OER at their institutions. Because of the small dataset and its focus on position descriptions, the study misses a whole subset of librarians currently working who shifted into these positions or have had these duties added to their workload. It would be interesting to follow up this study with one that interviews librarians who are working in these positions and hear directly from them about what skills they brought to the table as applicants, or what skills they have gained while working in this area. It would also be intriguing to learn what the reporting line of their position is, and what the culture at their institu-

tion was that led to a focus on leading open initiatives.

With this initial pass through the corpus complete, it is clear from the preliminary findings that this data could answer other research questions. For example, it would be interesting to explore how positions serving state consortia or statewide initiatives differ from positions that do not have those responsibilities or to look at the array of titles to see how different academic libraries are labeling this work in their institution. It would also be interesting to look at the data to see how many of these positions were temporary, temporary with a continued appointment as a possibility, or permanent. The corpus of position descriptions (https://drive. google.com/drive/u/0/folders/1242Az-5rjiCz9FCMHXXC9ORMFRocWx-4Gw) are available for other researchers to use or other administrators who want to write position descriptions for this kind of work at their institution. After cleaning up the data, I also intend to make the Open Education Master Codebook available to other researchers. It will include both a template for other researchers to use to replicate this work with their research questions and the data generated by this research project so others can see how I coded the position descriptions in this project.

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Understanding the Impact of OER Courses in Relation to Student Socioeconomic Status and Employment

Kim Read, *Oregon Education Association*

Hengtao Tang, *University of South Carolina*

Amber Dhamija, *Concordia University*

Bob Bodily, *Lumen Learning*

Abstract

The purpose of this study was to measure efficacy of Open Educational Resources (OER) on student academic achievement as well as student perceptions and use of OER, specifically among students of low socioeconomic status (SES). The authors of this study collected achievement and demographic data from students enrolled in 10 sections of an undergraduate course at a private, four-year not-for-profit institution in the Pacific Northwest. Students in earlier class sections of the course used non-OER materials (*n*=95), and those in later sections used materials developed from OER (*n*=111). An online survey including questions on socioeconomic status, perceived achievement and motivation, experience in the course, textbook-buying habits, and preferences in textbook formats was distributed to the participants in both the OER and non-

OER sections. Data were analyzed using a random effects model design. No significant difference in academic achievement between the OER and non-OER courses was found. Survey responses indicated that students perceived their motivation and achievement to be improved with OER. Additionally, students with self-reported low SES indicators perceived they worked significantly more than high SES students, and working more is slightly positively correlated to perceived impact of OER on achievement and motivation. The results from this study may inform further research on the impact of SES and employment on student perceptions and use of OER.

Keywords: open educational resources, academic achievement, higher education, socioeconomic status, student attitudes, student perception

Comprender el impacto de los cursos REA en relación con el estatus socioeconómico y el empleo de los estudiantes

Resumen

El propósito de este estudio fue medir la eficacia de los Recursos Educativos Abiertos (REA) en el rendimiento académico de los estudiantes, así como las percepciones de los estudiantes y el uso de REA, específicamente entre los estudiantes de bajo nivel socioeconómico (SES). Los autores de este estudio recopilaron datos demográficos y de rendimiento de los estudiantes matriculados en 10 secciones de un curso de pregrado en una institución privada sin fines de lucro de cuatro años en el noroeste del Pacífico. Los estudiantes en las secciones anteriores de la clase del curso usaron materiales que no eran REA (n = 95), y aquellos en secciones posteriores usaron materiales desarrollados a partir de REA (n = 111). Se distribuyó a los participantes una encuesta en línea que incluía preguntas sobre el estado socioeconómico, los logros percibidos y la motivación, la experiencia en el curso, los hábitos de compra de libros de texto y las preferencias en formatos de libros de texto, tanto en las secciones REA como no REA. Los datos se analizaron mediante un diseño de modelo de efectos aleatorios. No se encontraron diferencias significativas en el rendimiento académico entre los cursos REA y no REA. Las respuestas de la encuesta indicaron que los estudiantes percibieron que su motivación y logros mejorarían con los REA. Además, los estudiantes con indicadores de SES bajos autoinformados percibieron que trabajaron significativamente más

que los estudiantes con SES alto, y trabajar más se correlaciona ligeramente positivamente con el impacto percibido de los REA en el rendimiento y la motivación. Los resultados de este estudio pueden informar más investigaciones sobre el impacto de SES y el empleo en las percepciones de los estudiantes y el uso de REA.

Palabras clave: recursos educativos, logros académicos, educación superior, nivel socioeconómico, actitudes de los estudiantes, percepciones de los estudiantes

理解OER课程与学生社会经济状况及就业相关的影响

摘要

本文旨在衡量开放教育资源（OER）对学生学术成就及学生感知和使用OER上产生的效果，尤其是那些社会经济状况（SES）差的学生。本文作者从在大西洋西北地区一间私人四年制非营利机构就读，并加入一门划分为十个部分的本科生课程的学生处收集了学术成就与人口资料。加入课程前部分的学生使用了非OER材料（*n*=95），而加入课程后部分的学生使用了OER材料（*n*=111）。一项包括社会经济状况、感知的学术成就与动力、课堂体验、课本购买习惯、以及课本形式偏好等疑问的网络调研被分发给OER和非OER课堂部分的参与者。使用一项随机效应模型分析了数据。未发现OER与非OER课堂的学术成就出现显著差异。调研反馈表明，学生通过OER感知到了其学习动力与学术成就的提升。此外，比起SES指标高的学生，SES指标低的学生认为其更多地参与工作，并且更多地工作在些许程度上与OER对学术成就和动机的影响感知成正相关。本研究得出的结果可能促进未来关于SES与就业对学生感知和使用OER所产生的影响的相关研究。

关键词：开放教育资源，学术成就，高等教育，社会经济状况，学生态度，学生感知

Introduction: The Cost of Education

It is still true that individuals with a college degree experience greater income and wealth over time when compared with individuals without a college degree. However, the increasing costs of attending college combined with stagnant or slight wage increases and heavy student loan debt have made the price of a college degree significant-

ly steeper both immediately and over a lifetime. A recent and popular Forbes article highlighted that the cost of attending college has grown nearly eight times faster than wages, and student loan debt is now higher than any other non-housing debt at $1.4 trillion dollars (Maldonado, 2018). The average cost of tuition and expenses for an undergraduate degree from a four year institution now comes to $104,480, with tuition costs rising 34% for public and 26% for private institutions from the 2005-2006 school year to the 2015-2016 school year, when adjusted for inflation (National Center for Education Statistics [NCES], 2018).

Similarly, from roughly 1974 to 2016, the average cost of attending college rose 2.5 times while median family income grew only 1.6 times (Cahalan, Perna, Yamashita, Wright, & Santillan, 2018). In about the same time period, state and local funding for higher ed-

ucation decreased by 21% and costs incurred by students and families increased by 18% (Cahalan, Perna, Yamashita, Wright, & Santillan, 2018). When low and middle income college graduates have financed their degrees with student loans, the ability to purchase a home, contribute to retirement savings, qualify for other loans, and save for dependents' college expenses are all diminished by significant monthly loan payments. For example, graduates with debt have two times less retirement savings and 40% less home equity (Elliot & Lewis, 2013, p. 54). While student loans have increased access among lower socioeconomic groups, some have called into question the degree to which an indebted college education is an equalizer in wealth inequalities, with higher student loan debt increasing wealth disparities by race and class (Elliott & Lewis, 2013; Jackson & Reynolds, 2013).
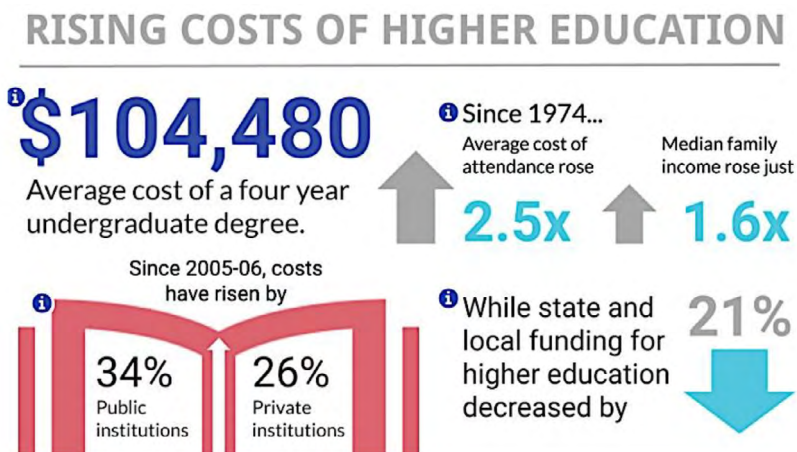

Figure 1. Costs of Education

OER and Libraries: Promoting Equity

Although faculty are disempowered from affecting tuition and room and board costs, faculty usually do control textbook and other course materials selection. Libraries are increasingly playing an influential role in the selection process. Consequently, required course materials selection, access, and costs are one area where libraries can contribute towards a more equitable classroom. The reduction in costs can have an immediate effect on student budgets. For example, the College Board recommended that undergraduate students budgets stay between $1240-$1440 for books and supplies for the 2018-2019 academic year (College Board, n.d.). When students cannot afford their course materials, some choose not to purchase them. According to the Student Public Interest group, 65% of students have not purchased a course textbook because it was too expensive (Senack, 2014). Almost 1 in 4 students report that they frequently do not buy textbooks because of the cost (Florida Virtual Campus, 2012). The textbook is often the primary channel for students to receive course knowledge (Robinson, Fischer, Wiley, & Hilton, 2014). Further, without purchasing textbooks, students risk lowered course performance (Florida Virtual Campus, 2016; Senack, 2014). Making strides to reduce costs and promote access is in keeping with the historical mission and role of the library. While originally libraries were only available to elite populations, libraries now have a long and rich history of being champions of equitable access to information and knowledge. "Equitable Access to Information and Library Services" remains one of eight key action areas for the American Library Association ([ALA], n.d.). In fact, the ALA's motto, established in 1892, could easily be co-opted by the OER movement: "The best reading, for the largest number, at the least cost" (ALA, 2008).

In colleges and universities across the globe, librarians have emerged as leaders in OER and textbook affordability initiatives (Bell & Johnson, 2019). There are many reasons for this leadership role, including librarians' established cross-campus relationships in addition to their specific areas of expertise (Colson, Scott, & Donaldson, 2017). In a 2019 SPARC report, libraries at all 132 institutions that self-reported campus OER programs, are involved in such initiatives with a marked increase in engagement from both librarians and library administrators (Nyamweya, 2019). In a 2016 report from the Association of Research Libraries (ARL), 64% of ARL survey respondents indicated that their institutions' OER programs originated in the library and 73% percent were implemented by the library (Walz, Jensen, & Salem, 2016). It is no surprise given the role that libraries play, and those who facilitate these roles are generally proponents of all things open: open access, open source, open educational resources (OER), etc. The openness of OER is not just in access, but the flexibility of customizing high-quality educational resources that can become an alternative

to costly commercial textbooks (Hilton, Wiley, & Lutz, 2012; Hilton, Wiley, Stein, & Johnson, 2010; Hilton, Gaudet, Clark, Robinson, & Wiley, 2013). When an open license is combined with copyright, college instructors can retain and reuse existing open license resources, or if necessary, revise and remix them aligned with their course objectives, as well as redistribute the customized resources to their students (Lin & Tang, 2017; Wiley & Hilton, 2018).

OER provide an opportunity to marry student, faculty, and administration interests in reducing reliance on commercial textbooks. OER can dramatically reduce or entirely eliminate textbook costs for students in courses that use OER (Wiley, Green, & Soares, 2012). For administrators, OER initiatives might be used as a way to attract new students by demonstrating a commitment to reducing student costs, while also addressing key metrics like student drop and withdrawal rates which have been shown to be reduced in courses that utilize OER (Schaffert, 2010; Colvard, Watson, & Park, 2018; Hilton, Fischer, Wiley, & Williams, 2016). For libraries specifically, OER and textbook affordability initiatives have the power to remove barriers to both required course content and knowledge, reinforcing the library's role in increasing equitable access to information while at the same time decreasing the cost of obtaining a college degree. The authors of the present study share how one library-led and OER-focused initiative impacted students of low socioeconomic status.

Literature Review
Open Educational Resources Initiatives in Higher Education

The rise of Open Educational Resources (OER) can be dated back to UNESCO's 2002 Forum on Open Courseware when the term OER was initially coined. According to UNESCO (2012), OER include "teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions" (UNESCO, 2012, para.1). In contrast to the increasing price of commercial textbooks, OER are advantageous in affording educators and students free access to a wide range of educational resources, which might significantly reduce students' financial burden (Bliss, Robinson, Hilton, & Wiley, 2013; Hilton, Robinson, Wiley, & Ackerman, 2014). Furthermore, with an open license endorsed by Creative Commons, OER can be customized, unlike commercial textbooks (D'Antoni, 2009; Hilton et al., 2013, 2014). For customization, OER allow users to retain (e.g., save a downloaded copy), reuse (e.g., use a portion of or the whole materials in another context), revise (e.g., make needed changes to the resources), remix (e.g., combine two resources), and redistribute (e.g., share with a class or a larger community beyond classes) available resources in line with their needs and course objectives (Hilton et al., 2013, 2014; Wiley & Hilton, 2018). An additional benefit of OER lies in the

time-effectiveness of updated resources in OER repositories since they become immediately available for use without undergoing the long wait for the publication cycles dominated by commercial publishers (Kimmons, 2015). With these advantages, OER have gained attention in higher education settings as a low-cost alternative to commercial textbooks.

Accordingly, OER initiatives have increasingly emerged and expanded at individual institutions, across university systems, and in collaborative networks. According to David Ernst, Executive Director of the Open Textbook Network (OTN), membership in the OTN has grown from representing 53 institutions in 2014 to 1,107 institutions in 2019 (personal communication, October 15, 2019). The OTN's affiliated digital curation of peer-reviewed open textbooks, the Open Textbook Library, has seen traffic increase from an average 75 visits a day in 2012 to 11,074 visits per day in 2019. In British Columbia, 40 institutions have adopted or are currently adopting OER, with 619 faculty responsible for over 3,000 adoptions resulting in student savings of 12-13 million dollars (BCcampus, 2019). Open Oregon Educational Resources, a state-funded program serving public 2-year and 4-year institutions in Oregon, has saved students an estimated 4.6 million dollars through its OER grant programs between 2016 and 2019 (OpenOregon, 2019). Affordable Learning Georgia (n.d.) reports student savings of 61.9 million dollars, affecting 379,000 students at 26 institutions. The Maryland Open Source Textbook

(M.O.S.T.) initiative from the university system of Maryland has saved students an estimated $3.4 million across 89 courses from 19 institutions from Spring 2014 to Spring 2018 (University System of Maryland, 2017). In all, OER provide learners with cost-effective options of open licensed content to support their learning. To measure the effectiveness of these OER initiatives, it is also important for OER stakeholders to understand whether OER have been efficiently used without any harm to learner achievement and learner perception (Robinson et al., 2014), especially for those students with low socioeconomic status (Colvard, Watson, & Park, 2018).

Open Educational Resources and Learner Achievement

Improving learner achievement is one of the primary goals for instructional interventions in educational settings. Whether the use of OER has improved or inhibited student performance in college courses also garners much attention. Plentiful evidence has revealed that, in general, there is no significant disadvantage to learner achievement with the use of OER in college-level courses. Some researchers referred to students' course grade or exam scores in determining whether OER improved student performance or not. For example, Hilton and Laman (2012) piloted the use of open textbooks in introductory psychology courses at Houston Community College and their findings indicated students using open textbooks earned

a higher score in department-wide final exams than those in courses that used traditional textbooks. Bowen et al. (2012) found students using OER on statistics created by Carnegie Mellon University's Open Learning Initiative in a blended course scored higher on standardized exams than those attending a face-to-face course without using OER. Allen et. al (2015), reported no significant difference in overall exam grade and item-specific question scores between students in an experimental group (whose textbook was openly licensed) and those in the control group (using a commercial textbook). Grewe and Davis (2017) indicated the use of OER were positively correlated to students' final grades in an online history course. Ross, Hendricks and Mowat (2018) noted that no significant difference in average grade existed between two offerings of a college-level introductory sociology course, one of which used OpenStax textbooks and the other used commercial counterparts. Other researchers used the rate of pass or Drop Fail Withdraw (DFW) rates as a metric to evaluate the effectiveness of OER adoption. For example, Pawlyshyn et al. (2013) compared the pass percentage between two offerings of the same course taught by the same instructor (one section used OER and the other did not) and an increase in the pass rate was found when OER were adopted. Croteau (2017) found the overall DFW rate and completion rate did not significantly change after implementing OER based on a synthesis of numerous reports from the textbook transformation initiative spon-

sored by Affordable Learning Georgia. Chiorescu (2017) reported students using OER in her college-level algebra classes were less likely to fail the course compared to other sections she taught using commercial textbooks. Furthermore, Chiorescu (2017) examined the rate of withdrawal in four different course sections, indicating students enrolled in the OER section of Spring 2015 (5% withdraw rate) were significantly less likely to withdraw from the course than those in the non-OER sections, Spring 2014 (9.9%), Fall 2014 (8.8%), and Fall 2015 (10%).

It is evidenced that adopting OER has no harm to overall student performance in college-level courses, but the call for disaggregated analysis of subgroups' performance in OER courses increasingly emerges (Colvard, Watson, & Park, 2018; Delgado, Delgado & Hilton III, 2019). Students with low socioeconomic status (SES) are one important subgroup, especially when evaluating OER programs as equity initiatives. For example, Colvard et al. (2018) reported a significant difference in course performance between Pell recipients (students who receive federal Pell grants due to significant financial need) and non-Pell recipients. Specifically, students in OER courses who were Pell recipients experienced final grade increases as well as decreasing failure and withdrawal rates. Similarly, Colvard et al. (2018) found that OER have a greater impact on grades for students from historically underserved populations.

College Students' Perception of Open Educational Resources

Another important metric in assessing the effectiveness of OER initiatives is students' perceptions of OER. Research indicates many college students enrolled in OER courses or using open textbooks expressed a preference towards open textbooks over commercial ones, mainly due to the fact that OER are free, accessible, and flexible to use (Bliss et al., 2013; Delimont, Turtle, Bennett, Adhikari, & Lindshield, 2016; Morales & Baker, 2018; Ross et al., 2018). However, some research findings report dissenting voices on students' preferences towards commercial textbooks. For example, Lawrence and Lester (2018) reported 74% of students in the earlier offerings of an American Government course were satisfied with used commercial textbooks, but students' satisfaction with the open textbook used in the converted course was only 57%. Lawrence and Lester (2018) explained that this difference in student satisfaction might result from the insufficient quality of the open textbook. Some students may also be less satisfied with the electronic format of some OER textbooks since some studies have shown that students prefer reading in print over digital (Mizrachi et al., 2018; Woody, Daniel, & Baker, 2010; Millar & Schrier, 2015). In other words, these studies confirm the importance of further understanding student perceptions of OER when evaluating the effectiveness of OER initiatives. Conversely, it could be plausible that differences in student perception might also be influenced by individual characteristics, such as student SES and employment status. Though scarce evidence is available regarding how individual SES and employment status influence student perception of OER, it is also necessary to reveal student perception of OER for each subgroup, as well as perceptions of students from historically marginalized and underserved populations, to examine the overall effectiveness of OER initiatives through an equity lens.
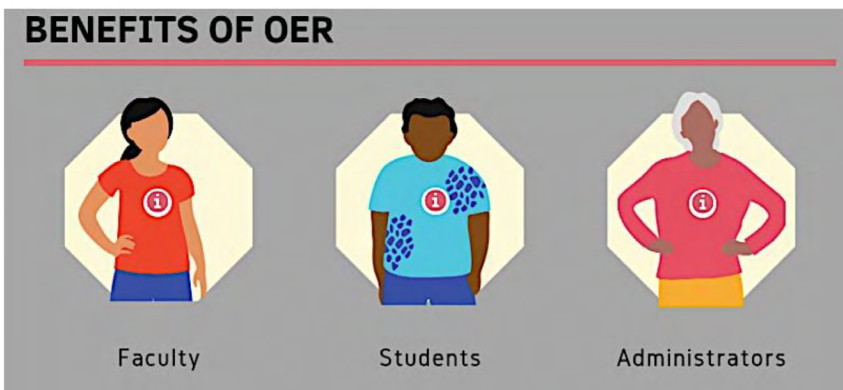
Figure 2. Benefits of OER

Project Background

In 2016, the library at a private four-year not-for-profit institution in the Pacific Northwest initiated conversations on the use of Open Educational Resources (OER). As of 2018, the University had a total student population of 5,874 - 1,569 undergraduates, and 4,305 graduate students. As part of an OER pilot initiative led by the dean of the library, the University partnered with the Open Textbook Network (OTN), an outside alliance of campuses promoting affordable course resources and student success. During the pilot project, 17 faculty and staff attended an OER workshop conducted by representatives from the OTN. Of those who attended, nine received stipends to peer-review an open textbook. In the second phase of the OER and Textbook Affordability initiative, a competitive application process provided stipend funds for five faculty members to convert courses from commercial textbooks to OER. The following year, another 15 faculty attended the workshop. Five of these faculty reviewed textbooks and the initiative was able to fund six OER converted courses. Currently, the initiative is in its third year of course conversions.

During the first year of implementing this campus-wide OER and Textbook Affordability initiative, the library began a study to measure the efficacy of the use of Open Educational Resources (OER) on students' academic achievement in courses where OER are used. The study also sought to investigate student perceptions of OER as well as their use of OER, specifically examining the academic achievement and perceptions of low socioeconomic status (SES) students enrolled in OER courses. The rationale for the study was to collect data on student achievement and student perceptions in classes where OER were used to make future decisions about the OER campus initiative.
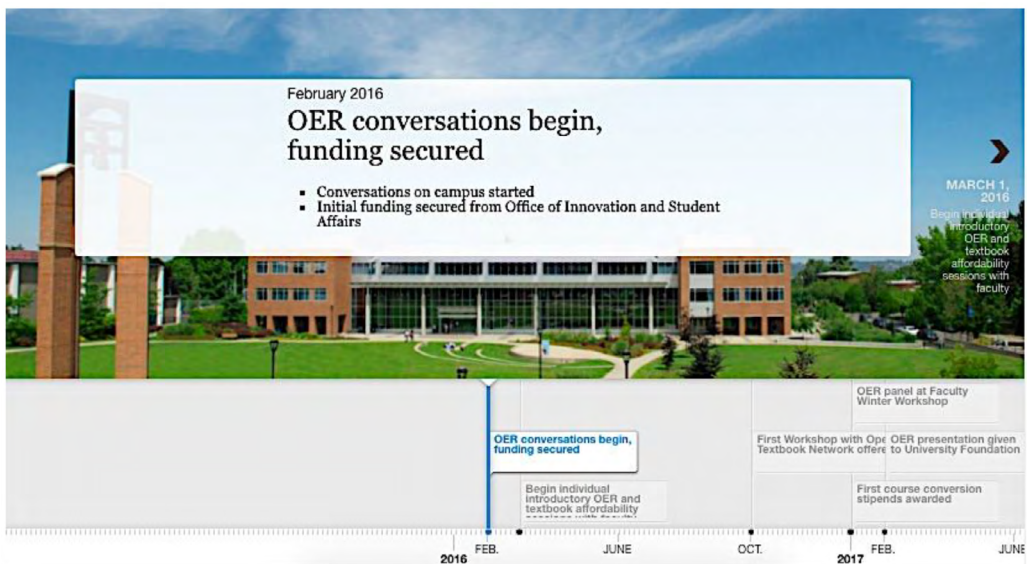
Figure 3. Project timeline

Methods

The researchers of this study collected achievement and demographic data from ten sections of an undergraduate course both prior to, and after being converted to OER. Pre- and post-conversion sections were taught by the same instructor. The achievement data included final exam scores and final course grades. Demographic data included gender, PELL eligibility, expected family contribution, and FAFSA family income. Achievement and demographic data were collected from 95 students in the earlier commercial textbook sections, and 111 students in the OER-converted sections. Two students opted out of having their data collected.

Additionally, students in the OER sections received an online Qualtrics survey which included questions on socioeconomic status, perceived achievement and motivation, experience in the course, textbook buying habits, and preferences in textbook formats. A total of 93 students participated in the survey.

In order to determine the effect of using OER course materials in place of commercial textbook materials a random effects model design was used - also known as hierarchical linear modeling or mixed-effects modeling. This method controls for bias due to multiple instructors and classrooms in the same data set. It is important to control for this confound because some instructors and classrooms are more favorable for students (i.e., better instruc-

tor, more collaborative peers, etc.), and using a mixed-effects model teased out the classroom differences to obtain an unbiased estimate of the effect of OER when compared with commercial materials. Correlations were performed using Pearson's R and the survey responses were treated as continuous data.

While some researchers have argued that studies such as these are methodologically fraught due to the access hypothesis (Grimaldi, Mallick, Waters, & Baraniuk, 2019), we argue that an increase or decrease in student achievement when comparing OER and commercial textbook materials may be the result of many factors other than the access hypothesis, such as a difference in textbook relevance to students, outcome alignment to a course, the alignment between the textbook and the way the instructor teaches the course, or improvements in the way content is presented. In addition, this study could potentially strengthen the research showing no significant difference in academic outcomes when using OER.

Results

The results of the mixed-effects model are presented below. Expected Family Contribution (EFC), Federal Student Aid loans (FAFSA), Gender (coded as female (1) and male (0)), PELL (a binary variable indicating whether students received Pell Grant money), OER (a binary variable indicating whether the student was enrolled in an OER section or a commercial copyrighted textbook section), and groups shows the coefficient and stan-

dard error for the amount of variance explained by each of the four courses included in the analysis. For this analysis, log transformation for both the FAFSA and EFC was used due to heavily right skewed data. The dependent variable in our regression was the final grade students received in their course (see Table 1).

Table 1. The Mixed Effects Model Results

Variable	Coef.	Std.Err.	z	P>|z|	[0.025	0.975]
Intercept	72.734	9.984	7.285	0.000	53.166	92.303
EFC	0.741	1.118	0.663	0.507	-1.450	2.933
FAFSA	0.481	0.960	0.501	0.616	-1.401	2.364
Gender	2.409	1.358	1.773	0.076	-0.254	5.071
PELL	0.413	2.703	0.153	0.879	-4.886	5.711
OER	1.094	1.288	0.849	0.396	-1.431	3.619
groups	24.612	2.296				

Similar to many other studies, a p-value of 0.396 for the OER variable indicated that academic achievement between OER and non-OER sections was not statistically significant. In other words, students in OER sections performed no better or no worse than students in commercial textbook sections of the same course taught by the same instructor. This was true of both low and high SES students. Interestingly, PELL, FAFSA, and EFC were not significant predictors of student final grade in these courses in the presence of the other variables in this analysis, as seen in Table 1 with p-values of 0.879, 0.616, and 0.507, respectively.

Survey Results

A descriptive analysis of the survey results showed that 75 percent of students perceived both their achievement and their motivation to be improved with OER (see figure 4, Table 2, and Table 3 below).

In addition, interesting results were found when examining students who were employed. Not surprisingly, low SES students (those who receive loans and/or Pell grants) work more than high SES students. In fact, conducting an independent samples t-test between low SES student work hours and high SES student work hours shows that low SES students work significantly more than high SES students (p-value < .01), working on average 8 hours more per week. The group that received loans and Pell grants worked the most out of any other group. Working more is slightly positively correlated to perceived impact of OER on achievement and to perceived impact of OER on motivation.
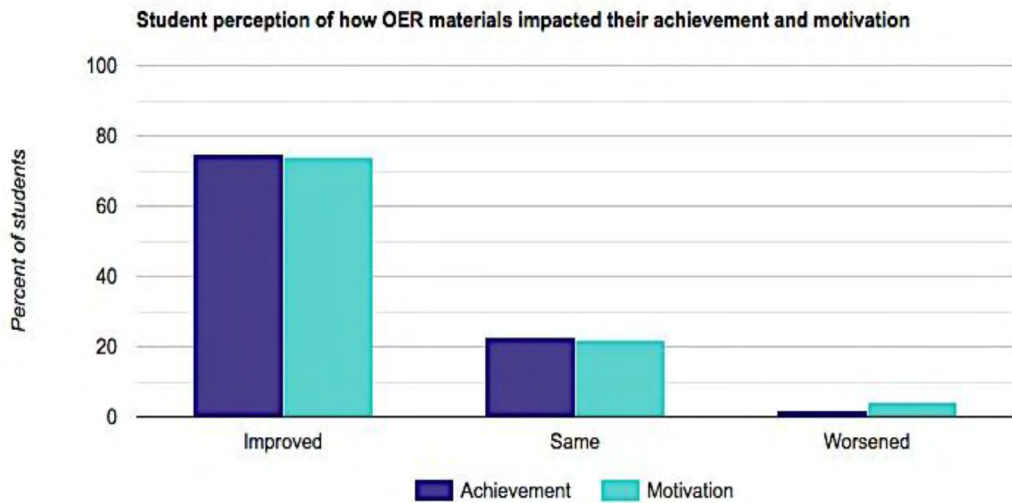
Figure 4. Student perceptions of achievement and motivation with OER

Table 2. *Results of Q17: How did having free access to your textbook/required course materials impact your ACHIEVEMENT in this class?*

Results of Q17: How did having free access to your textbook/required course materials impact your ACHIEVEMENT in this class?

Achievement	Number	%
Greatly improved	27	31
Moderately improved	24	28
Improved a little	14	16
Same	20	23
Worsened a little	0	0
Moderately worsened	2	2
Greatly worsened	0	0

Table 3. *Results of Q18: How did having free access to your textbook/required course materials impact your MOTIVATION in this class?*

Results of Q18: How did having free access to your textbook/required course materials impact your MOTIVATION in this class?

Motivation	Number	%
Greatly improved	23	26
Moderately improved	31	36
Improved a little	10	11
Same	19	22
Worsened a little	1	1
Moderately worsened	2	2
Greatly worsened	1	1

Socioeconomic status did not impact student responses to the achievement or motivation questions in the same way that hours worked per week did. There was a slight trend, meaning the low SES student mean on the achievement and motivation questions was slightly higher than the high SES student mean, but after conducting an independent samples t-test, the difference was not significant ($p > 0.05$). Additionally, achievement and motivation had a small positive correlation ($r = .35$) showing students that believed OER increased their achievement were more likely to believe OER increased their motivation in the course. Finally, students with self-reported low SES indicators (loans, Pell grants, and/or employment) indicated a strong preference for OER over commercial textbooks when compared with students with no low SES indicators (see figure 5).

In terms of overall student perceptions of the quality of open textbooks used in their course compared with the quality of their textbooks in other courses, 36% thought the quality was better, 56% thought the quality was the same, and 8% thought the quality was worse. When asked about the online format of their open textbook compared to printed textbooks, 41% liked the online format more, 20% liked the online format less, and 39% had no preference.

Discussion

It is clear that of the students who took a course that used OER instead of commercial textbooks, most preferred OER, perceived that OER contributed to their achievement and motivation, and thought the quality of OER was the same or better than commercial textbooks, echoing Bliss et al. (2013), Delimont et al. (2016), Morales and Baker (2018), and Ross et al. (2018). On the other hand, this also adds to Lawrence and Lester's (2018) assumption that student perception of OER and/or open textbooks might be influenced by the perceived quality of these resources. In this study, students reported that they perceived the OER used in the conversion effort to be of higher quality, which might contribute to their preference towards OER and open textbooks in general. This also provides implications for future efforts in course conversion and other institution-level adoption of OER, especially reinforcing the importance of quality assurance in OER initiatives.

In addition, the authors of this study found students with low SES indicators (loans, Pell grants, and/or employment) preferred OER compared to commercial textbooks. Though no significant difference was reported in learner achievement between students with low and high SES indicators, this subgroup difference still merits attention when evaluating the overall effectiveness of OER initiatives in the future implementation. As aforementioned, the reason why significant difference in student performance was not found might result from the small sample size. It deserves further effort to better understand the influence of students' SES indicators on their achievement in and perception of OER courses.

Student textbook preferences by self-reported SES indicators
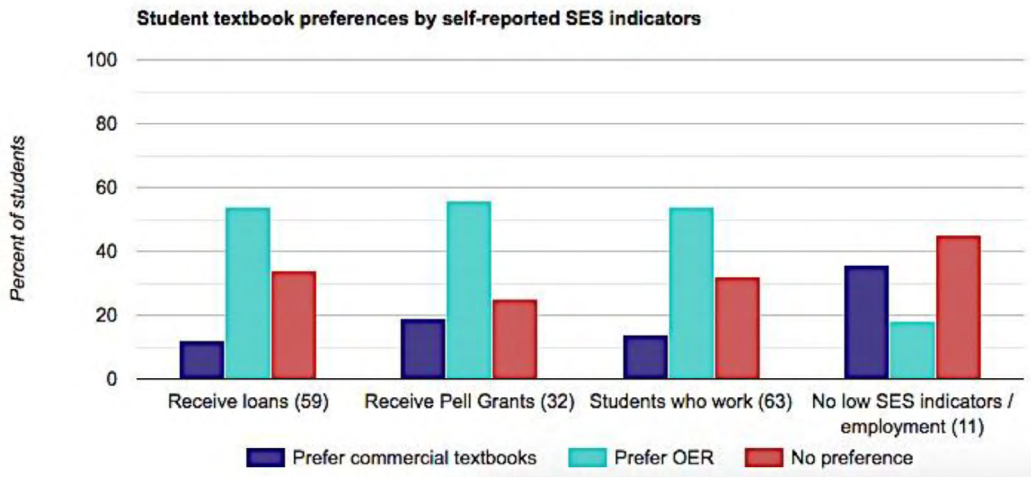
Figure 5. Student textbook preferences by self-reported SES indicators

Table 4. Student textbook preferences by self-reported SES indicators

Student textbook preferences by self-reported SES indicators

SES indicator	Prefer commercial textbooks %	Prefer OER %	No preference %
Students who receive loans (59)	12	54	34
Students who receive Pell grants (32)	19	56	25
Students who work (63)	14	54	32
Students with no low SES indicators / employment (11)	36	18	45

The results of this study reinforce one of the library's goals for the upcoming academic year, which is to involve students in advocating for OER. Because of working students' perceptions of the impact of OER, the results of this study further inspired the researchers to specifically consider employed students in this advocacy endeavor. Interestingly, the library is the largest student employer on campus. The results encouraged the faculty and staff at the University to both consider how the OER and Textbook Affordability initiative could be used to support student workers in the library (and elsewhere on and off cam-

pus) and also how those students might be involved in the initiative, including adding OER and textbook affordability work to job descriptions, where appropriate. Additionally, with twenty percent of students preferring print to online formats, the library will continue to buy print copies of open textbooks used in courses whenever possible.

Limitations

This research also has some limitations. First, the sample size of this research was small. Some insignificant findings might result from

this limitation. Second, in measuring student perception, self-reported data were collected using survey as the sole source of data. We cannot ensure the data truly reflected student perceptions of OER and our initiative. Additionally, conducting interviews and focus groups on the student OER experience, especially those students with low SES indicators and higher employment status, could provide more useful data on perceptions and experiences, including those that relate directly to topics such as effect on student budgets. Finally, collecting additional demographic information to identify achievement and perception of students from historically marginalized and underserved groups could better inform OER work as an equity initiative. Therefore, it is recommend adding race, ethnicity, and language data gathering as well as increasing the sample size of participants in relevant research on OER adoption. We also suggest providing supplementary formats of data on student perceptions to triangulate the data source and increase the rigor of these findings.

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Appendix A

Student Survey

Q1 In general, how often do you purchase the required texts for the courses you take?

○ Never (1)

○ Rarely (2)

○ About Half the Time (3)

○ Often (4)

○ Always (5)

Q2 For a typical course, how often do you use the required texts?

○ Never (1)

○ 2-3 Times a Semester (2)

○ 2-3 Times a Month (3)

○ 2-3 Times a Week (4)

○ Daily (5)

Q3 Have you received any LOANS to fund your education?

○ Yes (1)

○ No (2)

Q4 Have you received any PELL GRANTS to fund your education?

○ Yes (1)

○ No (2)

Q5 If you are currently employed, how many hours per week do you work (on average)?

○ I am not currently employed

○ Fewer than 5

○ 6-10

○ 11-15

○ 16-20

○ 21-25

○ 26-30

○ 31-35

○ More than 35

○ Prefer not to say

Some of the questions that follow refer to "this course." In these questions, we are referring to the course taught by the instructor who sent you the link to this survey.

Q6 What course did you take that used free textbooks/materials (OER)?

○ HISTORY COURSE

○ PHYSICS COURSE

○ PSYCHOLOGY COURSE

○ SCIENCE COURSE

○ SOCIOLOGY COURSE

Q7 Did you purchase any texts for this course?

○ Yes (1)

○ No (2)

Answer If Did you buy one or more texts for this course? Yes Is Selected

Q8 How much did you spend on texts for this course?

○ Less than $20 (1)

○ $21 - $40 (2)

❍ $41 - $60 (3)

❍ $61 - $80 (4)

❍ $81 - $100 (5)

❍ $101 - $120 (6)

❍ $121 - $140 (7)

❍ More than $140 (8)

Answer If Did you purchase one or more texts for this course? No Is Selected

Q9 Why did you not purchase the texts for this course? (select all that apply)

❑ Print versions of the texts were not available for purchase (1)

❑ The texts were available free of charge online (2)

❑ I simply didn't want to purchase texts for this course (3)

❑ I borrowed someone else's texts (4)

❑ I used library copies (5)

❑ I heard the instructor doesn't use texts for this course (6)

❑ I couldn't afford to purchase the texts (7)

❑ The texts were sold out (8)

❑ I rented the texts (9)

❑ Other reasons (10) _____

Q10 Did you print text materials for this course?

❍ Yes (1)

❍ No (2)

Answer If Did you print text materials for this course? Yes Is Selected

Q11 How much did you spend on printing text materials for this course?

❍   Less than $10 (1)

❍ $11 - $20 (2)

○ $21- $30 (3)

○ $31 - $40 (4)

○ $41 - $50 (5)

○ $51 - $60 (6)

○ $61 - $70 (7)

○ More than $70 (8)

Q12 For this course, how often did you use the required texts?

○ Never (1)

○ 2-3 Times a Semester (2)

○ 2-3 Times a Month (3)

○ 2-3 Times a Week (4)

○ Daily (5)

Q13 How often did your instructor encourage you to read or use your textbook?

○ Never

○ Rarely

○ Occasionally

○ Frequently

○ Always

Q14 How did having free access to your textbook/required courses materials impact your **achievement** in this class?

○ No impact- my achievement was the same as it would have been with a textbook I had to pay for

○ Little impact- my achievement was improved a little with free materials

○ Moderate impact- my achievement was moderately improved with free materials

○ Significant impact- my achievement was greatly improved with free materials

Q15 How did having free access to your textbook/required courses materials impact your **motivation** in this class?

○ No impact- my motivation was the same as it would have been with a textbook I had to pay for

○ Little impact- my motivation was improved a little with free materials

○ Moderate impact- my motivation was moderately improved with free materials

○ Significant impact- my motivation was greatly improved with free materials

Q16 How would you rate the quality of the texts used for this course?

○ WORSE than the quality of the texts in my other courses (1)

○ About the SAME AS the quality of the texts in my other courses (2)

○ BETTER than the quality of the texts in my other courses (3)

Answer If How would you rate the quality of the texts used for this... WORSE than the quality of the texts in my other courses Is Selected

Q17 Please briefly describe what made the quality of this course's texts WORSE than those in other courses.

Answer If How would you rate the quality of the texts used for this... BETTER than the quality of the texts in my other courses Is Selected

Q18 Please briefly describe what made the quality of this course's texts BETTER than those in other courses.

Q19 How do you feel about the online format of the texts used for this course?

○ I like the online format MORE than traditional printed texts (10)

○ I like the online format LESS than traditional printed texts (11)

○ I have no preference (12)

Q20 How likely are you to register for a future course with free online texts like those used in this course?

○ Very Unlikely (1)

○ Somewhat Unlikely (2)

❍ Somewhat Likely (3)

❍ Very Likely (4)

Q21 Assume cost is not a factor. Which of the following textbook formats would you prefer?

❍ Print
❍ Digital
❍ Both

Answer If Which of the following formats would you prefer is print Is Selected

Q22 If you prefer your textbooks in print format, please indicate the reason(s) for your lack of interest in using digital textbooks? (Check all that apply)

❏ They are inconvenient to read
❏ I like to have a printed copy to write in and highlight
❏ English is my second language. I am more comfortable with a print copy of a textbook.
❏ It is difficult to move to different pages/sections of the book.
❏ Some digital textbooks are not compatible with my print disability solutions.
❏ Some digital e-reader devices are not compatible with my print disability solutions.
❏ I do not have access to the technology to take advantage of digital textbooks.
❏ Other: (please specify) _____

Q23 Imagine a future course you are required to take. If two different sections of this course were offered by the same instructor during equally desirable time slots, but one section used texts similar to those used in this course and the other used traditional published texts, which section would you prefer to enroll in?

❍ I would enroll in the section with TRADITIONAL PUBLISHED TEXTS (1)

❍ I would enroll in the section with TEXTS LIKE THOSE OFFERED IN THIS COURSE (2)

❍ I would have no preference (3)

A Narrative Review and Conceptual Analysis of OER Perception Studies: Implications for Developing a Situational Scale for Faculty Self-Efficacy

Teri Oaks Gallaway

The Louisiana Library Network, Louisiana Board of Regents

Abstract

A narrative literature review of faculty perceptions of open educational resources (OER) led to the development of an instrument to measure faculty OER self-efficacy. Through the evaluation of extant literature, three central faculty considerations related to ideological, material, and support barriers and motivators were identified. The research examined the empirical literature on faculty perceptions of OER, including the barriers and motivators that are considered. The self-efficacy research of Bandura (Bandura 1977, 2006; Bandura, Adams, and Beyer 1977) was considered as a lens to examine issues that may prevent faculty from attempting to use OER or cause project abandonment when coping skills to address known challenges are lacking.

The literature coalesced around three central considerations related to ideological, material, and support barriers and motivators. Ideological barriers and motivators for faculty movement to OER

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included ideas fundamental to faculty identities, that they are part of an institution, and that they have professional commitments related to their teaching, research, and service roles. The desire to select high quality, peer-vetted resources figured prominently in the decision to use or not use OER, as did considerations of how cost would impact students. Material barriers and motivators identified were characterized by the inherent qualities of the materials themselves that may influence a desire to use them. The most-often researched material consideration was the usability of and access to OER, which were widely perceived as being in online formats. Finally, support considerations, primarily institutional support and general knowledge of how to find and OER, were widely reported in the literature. Faculty expressed concerns over a lack of release time or professional acknowledgement as barriers to considering course redesigns. Using these barriers identified in the narrative literature review, a self-efficacy scale is presented to support the further development and assessment of OER professional development programs.

Keywords: OER pedagogy, self-efficacy

Una revisión narrativa y un análisis conceptual de los estudios de percepción de REA: implicaciones para desarrollar una escala situacional para la autoeficacia del profesorado

Resumen

Una revisión de la literatura narrativa de las percepciones del profesorado sobre REA condujo al desarrollo de un instrumento para medir la autoeficacia del REA del profesorado. A través de la evaluación de la literatura existente, se identificaron tres consideraciones centrales de la facultad relacionadas con las barreras y motivadores ideológicos, materiales y de apoyo. La investigación examinó la literatura empírica sobre las percepciones del profesorado sobre los REA, incluidas las barreras y motivadores que se consideran. La investigación de autoeficacia de Bandura (Bandura, 1977, 2006; Bandura, Adams y Beyer, 1977) se consideró como una lente para examinar los problemas que pueden evitar que el profesorado intente utilizar REA o causar el abandono del proyecto al hacer frente a las habilidades conocidas. Faltan desafíos.

La literatura se fusionó en torno a tres consideraciones centrales relacionadas con barreras y motivadores ideológicos, materiales y de apoyo. Las barreras ideológicas y los motivadores para el movimiento del profesorado hacia REA incluyeron ideas fundamentales para las identidades del profesorado, que son parte de una institución y que tienen compromisos profesionales relacionados con sus roles de enseñanza, investigación y servicio. El deseo de seleccionar recursos de alta calidad examinados por pares figuraba de manera prominente en la decisión de usar o no usar REA, al igual que las consideraciones sobre cómo el costo del material afectaría a los estudiantes. Las barreras materiales y los motivadores identificados se caracterizaron por las cualidades inherentes de los materiales mismos que pueden influir en el deseo de usarlos. La consideración material más investigada fue la usabilidad y el acceso a los REA, que se percibieron ampliamente como formatos en línea. Finalmente, las consideraciones de apoyo, principalmente el apoyo institucional y el conocimiento general de cómo encontrar y REA, se informaron ampliamente en la literatura. El profesorado expresó su preocupación por la falta de tiempo de liberación o el reconocimiento profesional como barreras para considerar el rediseño de los cursos. Utilizando estas barreras identificadas en la revisión de la literatura narrativa, se presenta una escala de autoeficacia para apoyar el desarrollo y la evaluación de los programas de desarrollo profesional de REA.

Palabras clave: Pedagogía de REA, Autoeficacia

一项关于OER感知研究的叙事综述和概念分析：用于开发教师自我效能场景等级的启示

摘要

一项关于教师对开放教育资源（OER）感知的叙事文献综述引起了衡量教师OER自我效能的工具开发。通过评估现有文献，识别了三个关键的教师考量因素，它们与思想、材料以及支持方面的障碍和激励相关。本研究检验了有关教师对OER感知的实证文献，包括所考量的障碍和激励。透过学者Bandura的自我效能研究（Bandura, 1977, 2006; Bandura, Adams, & Beyer, 1977）视角，检验了一系列问题，后者可能阻止教师试图使用OER，或在缺少应对已知挑战的相关技能时造成计划放弃。

文献研究了与思想、材料以及支持方面的障碍和激励相关的三个关键考量因素。就教师使用OER而言，所存在的思想障碍和激励包括一系列感知，这些感知对教师认同十分重要，即他们是大学机构的一部分，以及他们在各自教学、研究和服务角色方面负有专业承诺。选择高质量、经同行评审的资源，这一期望是决定是否使用OER的主要因素，关于课本费用如何影响学生的考量也是主要因素。材料障碍和激励以材料本身的固有质量为特征，这种固有质量可能影响该材料使用与否的愿望。研究最多的材料考量因素是OER的可用性和获取性，OER被广泛视为在线形式的材料。最后，文献中广泛描述了支持方面的考量因素，主要为机构支持和如何寻找OER的一般知识。教师表达的顾虑包括缺少用于除教学外其他活动的时间，或专业认可，这些都是考量课程再设计时面临的障碍。通过使用叙事文献综述中识别出的障碍，提出了一个自我效能等级，用于支持OER专业发展计划的进一步开发和评估。

关键词：OER教育学，自我效能

Faculty and institutions seeking to address the issue of textbook insecurity have utilized three major strategies with strong ties to library services: replacing high-cost textbooks with openly licensed textbooks or course materials, replacing high-cost textbooks with library-licensed materials, and campus implementations of reduced cost commercial options through inclusive access or rental models. Open educational resources (OER) are the predominant strategy to reduce textbook costs for students, and many OER programs, centered administratively within libraries and library consortia, have utilized state-funded grant programs to support faculty release time for course redesign (Croteau 2017). In this model, academic support staff members, such as instructional designers and librarians, are part of a design team to support faculty in identifying, creating, and adapting resources for courses. Organizations are embracing these strategies at various levels, but the pace of change is slow, and a formula or guide for success does not yet exist in these endeavors. As a critical issue, there is much room for new research specifically in how to scale library-based programs to support faculty OER activities.

For those faculty that have incorporated OER into courses, documented motivators encompass altruistic interests in reducing materials costs for students and a desire to incorporate materials to enhance pedagogical techniques (Martin et al. 2017; Nikoi and Armellini 2012; Williamson et al. 2011). Surveys of faculty indicate that they are aware

of the challenges that students face in acquiring their course texts and that lower-cost textbooks are needed. Faculty members also indicate that the costs of materials are a great concern when selecting them (Seaman, Seaman, and Babson Survey Research Group 2017). With students reporting that they delay or avoid purchasing expensive course texts, faculty experience challenges in the classroom with underprepared students. Faculties are challenged to identify and implement low and no-cost course materials, specifically OER. Faculty members report "cost, content quality, and ease of use as factors influencing adoption of open textbooks" (Petrides et al. 2011, 43). Jung and Hong (2016) identify effectiveness of resources, efficiency in terms of saving course time, learning appeal, and extension of learning outside the classroom as four faculty priorities when adopting OER. In researching methods to improve larger scale OER sharing, Cohen, Omollo, and Maclicke (2014) find that providing metrics of use delivers positive feedback to authors. This reinforces relationships and supports the institutional and personal obligations for ongoing authorship commitments. These types of metrics also assist potential OER users in the identification of quality OER resources, a recurring concern among faculty. Faculty who have adopted OER and open educational practices often report that the process may take more time, but student grades have improved and, with earlier access to course materials, the content is customizable to better align with course goals and represent diverse communities, and in-

corporates current issues (Jung, Bauer, and Heaps 2017). To build capacity in these programs, empirical studies on successful educational strategies are needed. Social cognitive and self-efficacy theories provide a lens to explore opportunities to engage and encourage faculty in this pedagogical shift.

As we explore OER adoption behaviors and motivators and how library-based programming might support wider adoption, an examination of the larger process of textbook selection decision-making is a necessary topic of investigation. Better understanding of the overarching processes used by faculty in material selection, and how peer consensus about course learning objectives influences that behavior, helps us understand how the textbook selection process may be influenced to encourage adoption of OER. Departmental and individual processes provide examples of extensible criteria such as author credentialing, alignment to professional accrediting standards, price, and availability of ancillary material (Feldman-Maggor, Rom, and Tuvi-Arad 2016; Snider 2005; Whaley, Clay, and Broussard 2017). Czerwionka and Gorokhovsky (2015) document a collaborative process within a department to systematically select a textbook based on a set of evaluation criteria. Burns (2011) takes a different approach to classify areas of consensus within textbooks, an approach that has resulted in the identification of a pedagogical canon within a discipline. Badua, Sharifi, and Mendez Mediavilla (2014) offer insight into features and components of top-selling textbooks.

Policy initiatives at departmental, campus, and higher levels have influenced faculty uptake of OER. In several examples, mandates have angered faculty and launched concerns about encroachment upon the academic freedom of faculty (Knox 2017; McKenzie 2018). Investigations of faculty opinions on OER policy have revealed opposition to some top-down strategies that limit the academic freedom or intellectual property rights of faculty (Nikoi and Armellini 2012; Silver, Stevens, and Clow 2012). Other studies document faculty interest in policies to promote OER, such as establishing a process to ensure publication of high-quality, peer-reviewed OER, establishing technology and legal guidelines for OER, and instituting policies that acknowledge OER activity within faculty review processes (Masterman 2016; Nikoi and Armellini 2012).

The role of pedagogical norms and transmission of pedagogical techniques through faculty is also an important consideration in evaluating textbook selection and OER program design. Pedagogical approaches of faculty are necessarily connected to the suitability of a textbook and its possible replacement. Growing in popularity and importance, many campuses provide some distinct support for faculty to receive ongoing training or development related to pedagogical approach. Situationally, these types of faculty support centers may be partners for libraries in promoting pedagogical approaches that would support inclusion of OER. MacKenzie et al. (2015) uses grounded theory in an evalua-

tion of a faculty learning center (LC), also known as a teaching and learning center. They found that activities at the LC that focused on the scholarship of teaching and learning (SOTL) "facilitated positive social action as members shared knowledge of teaching practice, offered support and encouragement to each other, and undertook/established collaborative projects" (MacKenzie et al. 2015, 281). Henderson and Bradley's (2008) longitudinal study evaluated faculty pedagogical behavior as evidenced in semi-structured interviews. They explore how communities of practice influence pedagogical decisions. Faculty identity was found to be an influencer of online delivery techniques, and "pedagogical dilemmas (were) underpinned by the need to satisfy both demands of both identities (as a content expert and faculty member)" (Henderson and Bradley 2008, 91). This conflict may be useful in examining how teaching ancillaries like quiz banks and online study materials may influence textbook selection.

Within the literature of OER pedagogy, which is largely comprised of small institution-specific case studies, researchers identify barriers that inhibit greater adoption of OER resources. Faculty members consistently cite identification of suitable OER as problematic. Issues include inadequate systems to locate materials and lack of content in specialized areas beyond the general education core (Belikov and Bodily 2016; Delimont et al. 2016; Hanley and Bonilla 2016; Hassall and Lewis 2017; Hood and Littlejohn 2017). Lack of institutional support for faculty

is also perceived as a barrier. This includes adequate time for course redevelopment (Belikov and Bodily 2016; Delimont et al. 2016; Hassall and Lewis 2017), lack of support both in terms of pedagogical and technical resources (Hanley and Bonilla 2016; Hassall and Lewis 2017; McKerlich, Ives, and McGreal 2013), and clear administrative support, such as rewards and recognition (Delimont et al. 2016; Hanley and Bonilla 2016; Hassall and Lewis 2017; McKerlich et al. 2013). Lack of knowledge about copyright principles in the reuse and adaption of materials with Creative Commons licenses has also been cited as a limitation to widespread conversion away from high-cost, commercially produced textbooks (Hassall and Lewis 2017; Hood and Littlejohn 2017).

With growing knowledge of barriers to large-scale transition to OER, there is an opportunity to systematically utilize that literature as a source of data to describe the methods currently used to ameliorate those barriers, to develop strategies to enhance future program designs for libraries and beyond, to address issues of perceived self-efficacy that may inhibit further program success, and to develop reusable quantitative instruments to evaluate program effectiveness. The goal of this research, therefore, is to answer the following questions. Across the literature, what have researchers identified as the most critical faculty-perceived obstacles and benefits to the utilization of OER? And furthermore, how can knowledge of those obstacles enhance the systematic development and assessment of train-ing programs designed to support and encourage faculty OER activity?

Theoretical Framework

Bandura's (2001) discussion of social cognitive theory describes human agency in terms of three modes: personal, proxy, and collective agency. Each of these areas of agency is impacted by perceptions of efficacy and both are impacted by resultant behavior. Bandura (1977) further finds that there is a relation between perceived efficacy, or the belief that one will be successful at some task, and the choice of the individual to attempt that task. He explained:

> The strength of people's convictions in their own effectiveness is likely to affect whether they will even try to cope with given situations. At this initial level, perceived self-efficacy influences choice of behavior settings. People fear and tend to avoid threatening situations they believe exceed their coping skills, whereas they get involved in activities and behave assuredly when they judge themselves capable of handling situations that would otherwise be intimidating. (Bandura 1977, 193-94)

Not only does perceived efficacy impact the likelihood that a task will be attempted, but Bandura (2001) also finds that the higher the self-efficacy expectation, the greater the chance that a task will be completed successfully. Improving individual efficacy expectations,

therefore, plays a great role in the success of individual performance. Similarly improving expectation of proxy efficacy, or the confidence in others to complete a task and collective efficacy, and the belief that a group is capable of completing the task can improve the likelihood of success.

Four sources of information have been identified as influencers of efficacy: performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal (Bandura 1977). "Modes of induction," or treatments, are associated with each source of efficacy (Bandura 1977, 195). Performance accomplishment, which is based on firsthand mastery experiences, may be induced through treatments such as participant modeling or desensitization exposure. Vicarious experiences include behavior modeling, such as observing the successful performance of a task by others. Verbal persuasion includes suggestion that an individual is able to successfully complete a task. This treatment may be ineffective in some cases: it may result in a greater effort, but "without arranging conditions to facilitate effective performance [it] will most likely lead to failures that discredit the persuaders and further undermine the recipients' perceived self-efficacy" (Bandura 1977, 198).

The final source of information, emotional arousal, can have both positive and negative implications for the development of self-efficacy. Creating stressful environments can create avoidance of activities. This may "impede development of coping skills, and

the resulting lack of competency provides a realistic basis for fear" (Bandura 1977, 199). The influencers of self-efficacy are highly specific to the domain of the perceived self-efficacy. Bandura (1989) explains:

> General items linked to particular activity domains are an improvement over omnibus measures that are disembodied from clearly defined activities and contextual factors. But ill-defined items still sacrifice explanatory and predictive power even though they may be tied to a designated domain. Relations obtained with suboptimal measures may underestimate or misrepresent the causal contribution of given factors. (732)

Furthermore, to more accurately predict the outcomes, Bandura (2006) recommends that the creation of instruments or "scales of perceived self-efficacy must be tailored to the particular domain of functioning that is the object of interest" (307-08). In the case of OER pedagogy, a situational self-efficacy scale that takes into account known skills, barriers, and motivators for successful OER adoption would have greater predictive power than a general scale focused more generally on faculty teaching. Such a predictive scale has not been researched or developed to date.

The role of self-efficacy has been applied, however, to the many areas of behavior study, including in the study of higher education and faculty behavior. In Morris (2011), the development of pedagogical self-efficacy by ear-

ly-career faculty is explored through an application of Bandura's (1986, 1997) social cognitive theory (SCT). Using qualitative interviews conducted with faculty, the author reveals that positive feedback from students was highly instrumental in their early career pedagogical development. In this way, positive student feedback relating to no-cost course materials, or social persuasions, could be influential to the development of longstanding textbook selection behaviors. Samalot-Rivera and Porretta (2009) provide an example of a quantitative instrument based on Bandura's (1977) concept of modeling. The authors developed a questionnaire for physical education educators to evaluate the extent of the educators' uses of modeling to teach social skills. This example of SCT used in the development of an instrument could be helpful in examining the influence of department chairs and above in the higher education hierarchy on textbook selection practices. To what extent is selection of course materials by faculty influenced by the behavior of peers, the institutional messages, and positive or negative reinforcement models? Bandura's (1977, 1986, 1989, 2001) theories, therefore, provide insight into the "treatments" that may influence faculty textbook selection and OER self-efficacy and adoption.

Other relevant applications of SCT to the current problem include the development of employee training programs. This is well covered in the literature of business and management, but faculty training in higher education is researched to a lesser ex-tent. Examining faculty behavior and the role of administrative leadership related to supporting mission-oriented activities is useful in this area. Byun et al. (2018) applied SCT to investigate "trickle-down" management practices from high-level leaders to lower-level leaders; while outside of the culture of higher education hierarchies, it is nonetheless related to the opportunity for provosts, deans, and department chairs to influence the behavior of faculty. In this quantitative study, paired surveys of high-level and low-level leaders were used to evaluate factors such as task performance. The findings support the effectiveness of high-ranking university administrators influencing textbook selection decisions. In Vlachos et al. (2017), SCT is the framework for an examination of employee participation in corporate social responsibility (CSR) initiatives. Considering the positive impact that reduced textbook costs can have on students, OER initiatives can be broadly conceptualized as an example of a higher education corporate responsibility initiative. Using quantitative techniques, the researchers examined "the complex links between managers' genuine and self-serving attributions, managers' traits (i.e., organizational tenure), employees' CSR attributions, and employee behaviors advocating on behalf of the firm" (1113). The manager's organizational tenure was shown to have a positive effect on genuine CSR behavior by employees. In a higher education setting, this may indicate that tenured faculty members are more influential in transitions to OER than tenure-track faculty.

In a final example of the application of SCT to manager and employee behavior patterns, Duff et al. (2015) look at patterns of absenteeism in the workplace. The authors also investigate the extent to which social information processing theory explained employee behavior. The findings in this study, that team behavior influenced individual behavior more than manager behavior, could lead to a hypothesis that departmental OER usage norms will have an impact on individual faculty to a greater extent than department chair behavior.

In summary, SCT as a behavioral modification tool has been well-documented in the literature of business management and it has been considered to some extent in higher education as a lens for viewing how faculty make pedagogical decisions. It is not yet examined as a higher education tool to influence the textbook selection process for the specific application of reducing costs to students. Using the existing literature as a source of data provides an opportunity to describe the methods currently used to ameliorate the barriers to successful performance of OER pedagogy, and serves as source to develop a predictive self-efficacy scale situated in the specifics of OER pedagogy. Such a self-efficacy scale can be used as a pre- and post-test assessment to predict faculty OER activity and to design and assess OER workshops for faculty.

Method

In this narrative literature review, qualitative, quantitative, and mixed methods studies were examined to explore faculty perceptions of OER and to develop an analysis through those findings of the how self-efficacy might explain and predict the OER pedagogical behavior of faculty. Extant case studies, surveys, and interviews served as the data source for this analysis.

Data Collection

Criteria for article selection were established to focus primarily on faculty perceptions of OER or OER programs, eliminating a vast collection of literature on student outcomes research. The following criteria were used:

- The article represented an empirical research approach.

- The study involved faculty at colleges and universities in the United States or Canada.

- The article was published in a peer-reviewed journal.

- The research was published in 2000 or later.

The first set of articles that was reviewed was obtained through a search of the EBSCO *Discovery Interface* database using a Boolean search string to expand keyword terms for faculty, empirical, and higher education. This interface combines database content from across many databases including *Educational Administration Abstracts*, *ERIC*, *Professional Development Collection*, *PsycINFO*, and *SocINDEX with Full Text*. Upon applying additional date and peer-reviewed limiters, 434 records were identified.

A second search focusing on textbook selection was conducted in the same discovery environment. Expanders again were used to capture additional terms for faculty, empirical, and higher education and a subject heading "textbook selection" was applied. Upon applying additional date and peer-reviewed limiters, twenty-nine records were identified.

The 463 articles were examined for scope and geographic location of focus. The built-in discovery system limiters for geographic location over-filtered results due to a lack of metadata for all studies, so this process was completed manually. A collection of thirty-eight articles was read and analyzed for fit, thirteen were retained and eight more were located through bibliographic citations in the source articles and newer citations of the source documents. Although not peer-reviewed and outside the initial scope, a commissioned survey by Babson Survey Research Group was cited in the majority of the peer-reviewed studies and was of significant quality. In total nineteen studies were evaluated.

Data Analysis

Both deductive and inductive coding schemes were utilized. Using the theory base, deductive a priori coding was established to classify the modes of induction based upon Bandura's (1977) sources of efficacy expectations, and whether the research documented or evaluated their successful or unsuccessful usage, or if the modes of induction were merely suggested as best practice. Inductive codes were developed to categorize perceived barriers, benefits, motivators, and requisite skills related to faculty adoption of OER for instructional purposes. Atlas.ti software was utilized to apply coding schemes and to classify the study characteristics of each data source.

Initial coding revealed interrelatedness between codes for motivators, benefits, barriers, and requisite skills. These were due to how the researchers in the selected studies framed survey and interview questions. For example, in Petrides et al. (2011), faculty who were experienced with using OER were asked open-ended questions about the perceived benefits of using OER, whereas in Belikov and Bodily (2016), faculty with little or no OER experience were asked what would motivate them to use OER. Both groups cited the availability of institutional support as being a benefit or motivator.

A second-level coding process was used to regroup the codes into thematic areas to better represent the nature of the demonstrated perceptions, faculty considerations in the decision to utilize OER or not, and were comprised of material considerations, support and training considerations, and philosophical considerations. Few references to modes of induction were coded, as the literature presented little empirical examination of faculty development or institutional programming related to OER initiatives.

Findings

Of the nineteen studies, the most common methods of data collection were surveys (79 percent) and interviews (21 percent), with

75 percent of those using interviews also collecting data via surveys, as shown in Table 1. The studies primarily represented perceptions of participants from the United States (63 percent) with 68 percent of the studies using a sample size of 50 or greater. Mixed methods research accounted for 53 percent of the methods, and the remaining studies were split closely between qualitative (26 percent) and quantitative (21 percent) methods.

Table 1. Characteristics of Selected Studies

	n	*%*
Data collection method – Document Analysis	1	5
Data collection method – Focus Group	1	5
Data collection method – Interview	4	21
Data collection method – Observation	1	5
Data collection method – Survey	15	79
Location – Canada	1	5
Location – Global with Participants from US or Canada	6	32
Location – United States	12	63
Sample Size – 1-9	3	16
Sample Size – 10-24	1	5
Sample Size – 25-49	2	11
Sample Size – 50-99	1	5
Sample Size – 100-999	6	32
Sample Size – 1,000-10,000	4	21
Study type – Qualitative	5	26
Study type – Quantitative	4	21
Study type – Mixed	10	53

Three broad categories were developed to describe the findings of the faculty perceptions research. Studies evaluating ideological considerations examined and documented factors influencing faculty OER perceptions that were ideological in nature. These considerations were related to faculty beliefs and values related to student learning, pedagogical approaches, the ethics of working with commercial publishers, and beliefs about the roles of faculty as teachers, as members of a scholarly community, and as participants in an institutional culture. Studies included in the materials consideration category identified considerations related to the ability to find, evaluate, and use OER, including issues related to their alignment to the curricular needs, the accessibility currency or quality of the resource, and the availability of ancillary resources. Factors influencing factor perceptions of OER were internally consistent across the studies with ideological considerations represented in 79 percent of all studies, material consideration in 89 percent of the studies, and support consideration represented in 89 percent of the studies. All three factors were present in 74 percent of studies (*n*=14), followed by two factors appearing in 11 percent of the studies (*n*=2), and a single factor appearing in 16 percent of the studies (*n*=3).

Table 2. Factors Considered Influencing Faculty Perceptions of OER

	$n=$	%
Ideological Considerations	15	79
Student learning experience and outcomes	15	79
Student textbook costs	12	63
Teaching experiences and outcomes	12	63
Faculty peer relationships	4	21
Role of faculty within the institution	2	11
Environmental impact of textbooks	1	5
Ethics of textbook adoption	1	5
Material Considerations	18	95
Usability and access	12	63
Availability of suitable content	11	58
Customization of materials	11	58
Quality of OER	11	58
Availability of ancillaries	8	42
Ability to locate	6	32
Currency of materials	5	26
Accessibility features for disabilities	3	16
Support Considerations	17	89
Institutional Support	12	63
General Support	11	58
Technology Support	9	47
Copyright or Licensing Support	8	42
›Authoring or Editing Support	3	16
Modes of Induction	3	16
Performance Accomplishments	3	16
Vicarious Experience	1	5
Emotional Arousal	1	5
Verbal Persuasion	0	0

Ideological Considerations

Across all studies, an average of 24 percent of the individual ideological considerations were present in the studies, with a high of 71 percent ($n=5$) of the considerations reported in a representative study by Pitt (2015). Student learning experience and outcomes (79 percent, $n=15$), student textbook costs (63 percent, $n=12$), and teaching experiences and outcomes (63 percent, $n=12$) were the most often ideological considerations influencing faculty perceptions across the studies.

Student Learning Experience and Outcomes

The majority of researchers examined faculty perceptions of student learning experiences and outcomes considerations related to issues such as student access to course materials, class preparation, student retention, and student satisfaction. Faculty reported their experiences with increased or level performance and preparation of students in OER courses (Bliss et al. 2013; Delimont et al. 2016; Jung et al. 2017; Weller et al. 2015). Researchers described the enhancement of the student learning environment to create a "community of learning and [change] people's perceptions of learning as more social activity" (Atenas, Havemann, and Priego, 2014, 35) with students more engaged in the course (Bliss et al. 2013; Delimont et al. 2016; Pitt 2015; Weller et al. 2015) and an increase in interactivity (Petrides et al. 2011). The ability of students to have immediate and equitable access to OER course materials also factored into favorable perceptions (Bliss et al. 2013; Jung and Hong 2016; Pitt 2015; Weller et al. 2015; Young 2016). One alternate faculty perspective on the value of OER

included a concern that "OER is not going to be a make or break issue of retention. It is not a panacea for at-risk students" (Weller et al. 2015, 357).

Student Textbook Costs

Through surveys and interviews, twelve (63 percent) researchers examined faculty sensitivity to student textbooks costs and the resulting impact on their interest or willingness to utilize OER. The relationship between student textbook costs and faculty decisions to replace high-cost commercial textbooks is a well-worn topic in the literature of faculty OER perceptions. The studies selected here examined this topic from both the motivator and benefit angles, with faculty not yet using OER and those who had already made the switch, respectively. Researching OER motivators, Martin et al. (2017) found that 74 percent of faculty (*n*=574*)* would be willing to use an OER textbook due to a "desire by the faculty to save students money, or to alleviate the cost of education, represented a majority" (85). Twelve out of the nineteen studies examined the role of textbook costs and all reported some positive faculty association between textbook costs and a decision or interest in OER to reduce those costs. One of Pitt's (2015) participants described this motivation: "I went looking for an open source textbook for teaching physics when I thought about the racket that the textbook publishing companies are running" (141). Hanley and Bonilla (2016) examine how this impetus influences faculty publishing decisions as well. Their survey of 1,230 California faculty found that 88 percent

of faculty found that a "desire to reduce costs to students" was an important or very important factor that they would consider in choosing whether to make their own textbook publications open (136). While multiple studies of faculty perceptions articulated a belief that OER would reduce student costs, Weller et al. (2015) found that students (60.9 percent, *n*=196) and librarians (51.2 percent, *n*=83) agreed with this cost benefit perception to a lesser extent than faculty (73.1 percent, *n*=264).

Teaching Experiences and Outcomes

Twelve (63 percent) of the studies included findings related to faculty perceptions that OER had or would have an impact on curriculum innovation, enhanced teaching, improved efficiency, or improved teaching effectiveness. Pedagogical benefits were identified including the enhanced ability to use technology effectively in the classroom (Bliss et al. 2013; Delimont et al. 2016) and better alignment between the textbook and lectures (Bliss et al. 2013). Jung and Hong (2016) reported that resource effectiveness was the most often cited instruction priority considered in the decision to use OER. Furthermore, they defined four examples of effectiveness as the most influential: "to offer learner-centered materials, to provide quality content, to employ active learning methods, and to encourage deeper learning" (Jung and Hong 2016, 34). Faculty found that use of OER offered an "opportunity to rethink how they organized the content for their students" (Watson, Domizi, and Clouser 2017, 294) and resulted in faculty ex-

periments with collaborative and active learning approaches including utilizing a flipped classroom (Jung et al. 2017) and reflective teaching practices (Weller et al. 2015). The opportunity to customize resources was viewed as a positive benefit to pedagogical approaches with Petrides et al. (2011), who document how open materials can enhance faculty collaboration. A participant in a survey by Seaman, Seaman, and Babson Survey Research Group (2017) explicated this faculty perception in an open-ended response: "Being able to take ownership of the content, customize it as I see fit, and then teach based on desired student learning outcomes rather than what is printed in a single textbook is a game changer" (33).

Peer Referral, Behaviors, and Relationships

Researchers identified peer relationships as an important factor influencing perceptions of OER. The practices of sharing OER, peer referral and vetting, and collaboration were identified as potential motivators or as barriers, where not supported. Faculty referenced their consideration of peer referral in the decision to use OER (Delimont et al. 2016; Pitt 2015) and the need for repositories of OER to incorporate a peer-review process (Belikov and Bodily 2016). Belikov and Bodily (2016) explain, "suspicions are prevalent among faculty who see free and open for their weaknesses, which include lack of publisher accountability and peer review" (242). Opportunities for faculty collaboration on the creation and adoption of OER resources was viewed positively, however, with the capacity to reduce the time and effort involved in course design and to create opportunities to share personal recommendations for sources (Delimont et al. 2016; Petrides et al. 2011; Pitt 2015).

Other Ideological Considerations

To a lesser extent, several other ideological considerations were represented in the literature. Researchers documented the influence of the role of faculty within the institution (11 percent, n=2), which included examples of concern for their institutional or departmental roles, reputation, or savings (Delimont et al. 2016; Pitt 2015). One study identifies faculty concern for the environmental impact of textbooks as a motivation to use OER (McKerlich, Ives, and McGreal 2013) and Pitt (2015) cites faculty concerns with the ethics of the commercial publishing industry as consideration for OER adoption, stating, "I do not take bribe[s] from them and it gives me freedom from internal guilt" (147).

Material Considerations

Across all studies, an average of 44 percent of the individual material considerations were present in all studies, with a high of 88 percent (*n*=7) of the considerations reported in a representative study by Jung et al. (2017). Examination of usability of and access to OER formats (63 percent, *n*=12), availability of suitable content (58 percent, *n*=11), customization of materials (58 percent, *n*=11), and quality of OER were the material considerations most often reported across the studies.

Usability and Access

Faculty perceptions of OER materials being exclusively available in online format and the resultant challenges were widespread in the selected literature. Study findings include general statements about the ease or difficulty of use of materials or comments related to online or print format. Faculty concerns about the need for printed materials or student preference for print over digital were frequently cited barriers to OER adoption (Seaman, Seaman, and Babson Survey Research Group 2017). For example, Delimont et al. (2016) finds that "they would have liked to have known that students in his/her course were likely to print the materials rather than use them electronically" (10) and other studies report on faculty concerns with wireless connectivity and technology skills impeding access (Atenas et al. 2014; Bliss et al. 2013; Martin et al. 2017). Still other studies cite positive motivators related to online OER formats. Faculty valued the day-one universal access afforded by OER (Bliss et al. 2013; Delimont et al. 2016; Jung et al. 2017; Weller et al. 2015), especially when considering the ability to use the materials with cellphones and other devices (Hanley and Bonilla 2016; Pitt 2015; Young 2016). In summary, mixed perceptions were presented on usability and access of OER formats, with some faculty finding the formats easy to use and others finding them more challenging.

Availability of Suitable Content

While the breadth and depth of OER content continues to expand, faculties report that the availability and suitability of OER content impacts their willingness or ability to redesign courses. Findings related to the suitability of content from a standpoint of comprehensiveness, alignment with learning goals, language of resource, or comparability to other resources including commercial resources were described in the selected studies. Hanley and Bonilla (2016) find that over 70 percent (*n*= 230) of faculty members were influenced in their decision to use open textbooks by the "pertinence of the content to the objectives of the course" (135). High-quality resources have wide-availability for high enrollment general education courses, but as researchers document, faculty expressed challenges about the availability of resources for more specialized needs (Atenas et al. 2014; Belikov and Bodily 2016; Seaman, Seaman, and Babson Survey Research Group 2017; Young 2016), that available resources may be missing important content (Watson et al. 2017), or they were unavailable in the instructor's language of choice (Atenas et al. 2014).

Customization of Materials

Conversely, in some of the selected studies, not only was suitable content available, but faculty also found that due to the open license and ability to adapt content, the materials were highly customizable to their needs. Researchers identify faculty interest in the ability to adapt materials to meet instructional needs and comment about flexibility or adaptation to a cultural context being beneficial. Jung et al. (2017) report "the ability to customize the textbook en-

hanced the relevance of the content to the student" (130). A faculty participant in Pitt's (2015) study remarked that "The book is a resource .... The book no longer drives the course. I produce the curriculum. The book is my servant. I am not its servant" (148). Faculty using OER appreciated the ability to reorganize and customize content (Atenas et al. 2014; Belikov and Bodily 2016; Bliss et al. 2013; Delimont et al. 2016; Jung et al. 2017; Martin et al. 2017; Petrides et al. 2011).

Quality of OER

Some of the selected studies report that faculty believed OER options had the same or better quality as their commercially produced counterparts (Bliss et al. 2013; Hilton et al. 2013). In a post-implementation study of eighty community college instructors by Bliss et al. (2013), only 11 percent reported that the quality of the OER textbook was of worse quality than the commercial option, citing problems with the presentation of the content and the content itself. Other studies focused on how perceptions of quality impacted faculty willingness to adopt OER. In Atenas et al. (2014), a survey of 217 faculty members using a repository of OER identified resource quality as the second most frequently cited barrier to OER adoption. In the same study, one respondent reported, "You can find a lot of resources but not all have the same quality" (35). The lack of a peer review process for many OER contributes to the low-quality perceptions (Belikov and Bodily 2016). Petrides et al. (2011) explain:

Perceived quality of the content also influenced faculty decisions to adopt open textbooks. Perceptions of quality derived from various sources, including recommendations from trustworthy faculty colleagues, a personal relationship with the author, and a first-hand review of the textbook to determine its quality and pedagogical approach. Additionally, prior knowledge that the textbook was peer-reviewed influenced faculty decisions to adopt it. (43)

Other Material Considerations

Not as widely reported (42 percent, *n*=8) are material considerations related to the availability of ancillary materials, which include faculty perceptions about the availability of supplemental faculty or student resources to accompany an OER text or resource. The lack of resources, such as slides for instructor or adaptive homework platforms for students, presents a perceived barrier to wider adoption (Hassall and Lewis 2017; Martin et al. 2017; Pitt 2015; Seaman, Seaman, and Babson Survey Research Group 2017; Watson et al. 2017). Problems with discoverability of resources impeded adoption (Atenas et al. 2014; Belikov and Bodily 2016; Pitt 2015; Seaman, Seaman, and Babson Survey Research Group 2017). Discussed later as a support challenge, challenges with the ability to locate resources create a barrier in the efficiency of the OER course redesign process. As Young (2016) explains, "It seems plausible that using standard textbooks or

relying on salespeople would allow for quicker selection than researching and evaluating OER or finding suitable library resources" (154). In 26 percent of the literature, the currency of materials, or the frequency of their updates, was reported favorably where OER was perceived to be more current (Delimont et al. 2016; Pitt 2015), and as a concern where currency was identified as a potential barrier (Hanley and Bonilla 2016; Watson et al. 2017). Finally, rounding out faculty concerns with the material quality of OER is the ability of OER to provide accessibility features for the visual, hearing, or learning impaired (Jung et al. 2017; Martin et al. 2017; McGowan 2019). In a survey of 150 faculty members, Jung et al. (2017) find that nearly half of surveyed faculty members were unaware if open textbooks were accessible for students with disabilities.

Support Considerations

Across all studies, an average of 33 percent of the individual support considerations were present in all studies, with a high of 86 percent (*n*=6) of the considerations reported in a representative study by Delimont et al. (2016). Institutional support (63 percent, *n*=12), general or library support (58 percent, *n*=11), technology support (47 percent, *n*=9), and copyright or licensing support (42 percent, *n*=8) were most often reported as support considerations across the studies.

Institutional Support

Findings in this area relate to institutional support for faculty release time,

institutional recognition, or availability of financial support. Faculty experienced a lack of release time as a barrier to OER implementation. Bliss et al. (2013) report that over half (*n*=52) of faculty who had implemented an OER course perceived that they had spent more time on the preparation compared to the prior semester; however, an analysis of time spent by all participants in the program revealed no statistical difference in the amount of time spent preparing, although the time spent was perceived differently by OER program participants. In a smaller study, Delimont et al. (2016) report that 46 percent (*n*=13) of faculty thought that "the time required to develop the resource contributed to the difficulty of the process and indicated that it took somewhat more time than they anticipated…" (9). Lack of time was also consistently reported as a perceived barrier by faculty who had not participated in OER course revisions (Belikov and Bodily 2016; Hassall and Lewis 2017; Martin et al. 2017; McKerlich et al. 2013; Pitt 2015; Seaman, Seaman, and Babson Survey Research Group 2017; Watson et al. 2017; Young 2016). Beyond the most frequently cited concerns about lack of time, institutional support also related to the desire for financial support (Delimont et al. 2016) and for support for OER work to count toward institutional recognition, including tenure or promotion (Delimont et al. 2016; McKerlich et al. 2013). Finally, faculty expressed concern that their department or institution may not be generally supportive of OER (Atenas et al. 2014; Hanley and Bonilla

2016; Hassall and Lewis 2017; McKerlich et al. 2013). A survey of over 200 health sciences faculty found that "educators received no support or very little support from 49.8 percent of departments (*n*=104), 45.9 percent of faculties (*n*=96), and 40.7 percent of institutions (*n*=85)" (Hassall and Lewis 2017, 79) for the creation or use of OER.

General Support

Considerations impacting faculty OER perceptions coalesced around the general need for OER training or workshops and support to find, use, select, evaluate, or review OER, functions often associated with librarian support of OER initiatives. While general awareness of OER is frequently cited in open-ended questions as an ongoing training need (Belikov and Bodily 2016; Hassall and Lewis 2017; McKerlich et al. 2013), Seaman, Seaman, and Babson Survey Research Group (2017) have conducted annual surveys of faculty OER perceptions and found that general faculty awareness of OER has improved with a 12 percent gain in awareness for 34 percent to 46 percent (*n*=4100) over a three-year period. Where specific information about a lack of training for or knowledge about OER is indicated in the literature, the need for support in searching for, selecting, and reviewing OER is referenced (Atenas et al. 2014; Avila and Wray, 2018; Belikov and Bodily 2016; Hanley and Bonilla 2016).

Technology Support

More specific support needs were described in the selected studies related to using the learning management system or addressing the format or tech-nological aspects of working with OER in online and print versions. Petrides et al. (2011) explain, "faculty participants highlighted the need for technical training for new online practices, from basic technical support for incorporating the internet into the classroom, to more complex activities allowed by open online textbooks" (46). Faculty suggested that additional support or training was needed to address the software challenges associated with revising and adapting OER (Atenas et al. 2014; Delimont et al. 2016). Faculty surveyed by McKerlich et al. (2013), for example, cited the need for hardware or software to increase their use of OER (*n*=90, 74 percent).

Copyright or Licensing Support

Library staff also frequently provide the necessary support that faculty need to understand how to evaluate or apply licensing or copyright restrictions, especially in the context of creating new OER and remixing or revising existing OER. Faculty perceptions of the ease of utilizing OER were shaped by concerns about following copyright laws (Hassall and Lewis 2017; Seaman, Seaman, and Babson Survey Research Group 2017). Conversely, Weller et al. (2015) finds that only 28.2 percent of their survey respondents (*n*=281) currently using OER were concerned about whether they had permission from the copyright holder to use or modify the content, although a majority of the sample (70.4 percent, *n*=285) "considered open licensing important and were familiar with the Creative Commons logo (41.1 percent, *n*=171)" (354).

Authoring Support

Finally, a lack of authoring or editing support was found to influence faculty perceptions of OER in a small subset of the research (16 percent, *n*=3), specifically the support or training required to create or modify OER (Delimont et al. 2016; Hanley and Bonilla 2016; Watson et al. 2017). In interviews with faculty engaged in an OER grant program at Kansas State University, 23 percent (*n*=13) of participants would have favored having authoring support if they were to participate in the initiative again.

Modes of Induction

Empirical studies of existing faculty OER preparation programs are missing from the literature, although cursory coverage of the topic was available in the selected OER perceptions studies. Across the nineteen studies, three made passing reference to the existence of some type of program. Three studies referenced an existing program that could be categorized as offering an opportunity for faculty to participate in some performance-based experience. These included participation in a workshop, provision of a step-by-step guide, a hands-on learning experience, or discipline-specific training. In a review of existing OER grant program requirements, for example, McGowan (2019) finds that 51 percent of institutions or agencies (*n*=37) "require funding recipients to participate in some type of orientation or required support programme…" (10). These types of orientation sessions, as Young (2016) describes, are often developed and led by librar-

ians. Avila and Wray (2018) describe using multiple individualized library sessions with faculty to evaluate syllabi and learning outcomes and search for appropriate materials. They state that the "subject librarian and faculty work together to review the selected materials and to correlate them with the class assignments and course syllabi" (Avila and Wray 2018, 97). Avila and Wray (2018) describe other learning opportunities involving vicarious experiences, described as "locate and explain" (96), such as reviewing licensing terms and incorporating resources into a learning management system. While there were no identified examples of verbal persuasion, such as suggesting that faculty can accomplish the work, one example of positive emotional arousal was identified. McGowan (2019) indicates that 18 percent of institutional OER websites provide program outcome data on financial savings to students. Given the widespread acknowledgement that student savings is a top motivator for the faculty use of OER, the provision of outcome data should serve as a positive mode of induction. The lack of a comprehensive evaluation of the effectiveness of OER preparation programs and their associated pedagogical approaches further supports the need to develop tools, such as a self-efficacy scale, to evaluate program effectiveness.

Discussion and Implications for a Situational Scale

In this literature review, the author broadly explored faculty adoption of OER to better understand the at-

titudes and perceptions that impact the widespread adoption of OER. Self-efficacy as an explanatory theoretical framework suggests that in order to develop a situational scale to improve self-efficacy, it is necessary to explore the research literature to identify areas where coping ability may be needed to accomplish a task. Identifying motivators and barriers that influenced OER perceptions in previous studies is a starting point for this exploration. Literature related to faculty perceptions of OER quality and accessibility and an investigation of professional development strategies for open education practices were presented. Empirical research on the effectiveness of specific faculty professional development strategies for OER, however, is lacking. Thus, to design new empirical studies to measure the impact of faculty professional development for OER, we must first evaluate the obstacles faced by faculty.

Referring to Bandura's (2006) directive to create a context sensitive self-efficacy scale, several instruments and procedures for the development of self-efficacy scales for higher education can be referenced and adapted in this process. Hemmings (2015) used a qualitative model to explore the single domain of teaching self-efficacy, using a semi-structured interview protocol. Horvitz et al. (2015) used a web-based adaptation of the Michigan Nurse Educators Sense of Efficacy for Online Teaching (MNESEOT) Instrument (Robinia and Anderson, 2010) to evaluate online teaching efficacy across all disciplines, and Vera, Salanova, and Martin-del-Rio (2011) conducted a conceptual analysis of three faculty domains of teaching, research, and management to develop and test the validity of a self-efficacy scale. Additionally, Bandura (2006) provides a guide to the development of a context-sensitive scale. Key steps in this procedure involve identifying the main tasks involved in a domain, evaluating the barriers to successful performance, and developing a scale of "can do" statements with sufficient sensitivity, utilizing, for example, a hundred-point measurement rather than a five-interval scale. (See Table 3.)

In investigating the teaching roles of faculty, Vera et al. (2011) identify four primary tasks: "(1) determining elements and contents of academic training, (2) transmitting knowledge, abilities and competence, (3) communication with students, and (4) assessing students' learning" (802). Of these, only the first two tasks have distinct variability from the typical faculty process when OER are used. This is supported by the findings of the narrative literature review that material and support considerations are the most frequently cited factors in faculty OER perception studies. Furthermore, when examining present modes of induction for OER self-efficacy, locating, evaluating, and utilizing OER materials are the focus of current programs. Additionally, in examining the selected literature, barriers to successful performance were also identified in terms of ideological, support, and material considerations.

By applying the concepts of developing a self-efficacy scale to the preceding review of literature on faculty

Table 3. Situational Scale for Measuring Self-Efficacy (adapted from Bandura, 2006)

Rate your degree of confidence by recording a number from 0 to 100 using the scale given below:

0	10	20	30	40	50	60	70	80	90	100

Cannot do at all   Moderately Can Do   Highly Certain Can Do

Confidence (0-100)

1.   **Ideological Considerations for Self-Efficacy**

1.1   I can improve the student learning experience by OER using in my courses   _____

1.2   I can reduce student textbook costs by using OER in my courses   _____

1.3   I can improve my teaching experience by using OER in my courses   _____

1.4   I can identify colleagues in my department, institution, or professional communities with whom I can share OER expertise or collaborate on using OER in my courses   _____

2.   **Material Considerations for Self-Efficacy**

2.1   I can address challenges with electronic or print formats of OER   _____

2.2   I can identify and effectively use a repository of high-quality OER suitable for my teaching needs   _____

2.3   I can customize the OER that I find in order to better match my teaching objectives   _____

2.4   I can identify material that have been peer-reviewed or vetted by content experts   _____

2.5   I can locate or design ancillary resources for my teaching needs   _____

2.6   I can locate or design ancillary resources for students   _____

2.7   I can evaluate the accessibility features of OER for visual, hearing, or learning impaired students   _____

3.   **Support Considerations for Self-Efficacy**

3.1   I can advocate for or identify opportunities for release time for OER course design   _____

3.2   I can advocate for or identify opportunities for financial support for OER course design   _____

3.3   I can align my work on OER course design with my professional requirements for teaching, research, or service   _____

3.4   I can identify the people, departments, or instructional materials that will assist me with searching for or evaluating OER   _____

3.6   I can identify the people, departments, or instructional materials that will assist me with addressing technology challenges   _____

3.6   I can identify the people, departments, or instructional materials that will assist me with addressing copyright or licensing challenges   _____

3.7   I can identify the people, departments, or instructional materials that will assist me with the authoring or editing of OER that I create   _____

OER obstacles, the following "I can" statements provide a mechanism (Table 3) to evaluate faculty OER self-efficacy and guide the development and assessment of OER pedagogy boot camps and trainings for faculty audiences. As shown, the literature was used to shape a tool to measure self-efficacy, which, when aligned with known barriers, offers a predictive model. Aligning learning outcomes to the self-efficacy scale and utilizing inductive approaches that successfully improve self-efficacy further enhance the likelihood of faculty OER adoption. As these areas of self-efficacy directly relate to the identified conceptual areas and barriers from the literature, each item may be restated from a self-efficacy statement for faculty self-reflection to create a learning outcome to be used by OER educators, librarians, or others. In this way, those

tasked with OER education can better address known obstacles for faculty adoption.

Future Steps

Translating the recommended situational scale for OER self-efficacy into a program for the delivery of OER workshops or training goes hand-in-hand with the need to validate the reliability of the scale. Vera et al. (2011) provide a model for using confirmatory factor analysis to test the internal reliability, for example. While not addressed directly in this study, effective modes of induction should also be examined. Performance mastery opportunities through extended engagement and cumulative accomplishments have been shown to have greater impact than shorter instruction sessions utilizing vicarious experiences, such as demonstration without time for the individual performance of tasks (Bandura 1977; Bandura, Adams, and Beyer 1977). For example, skill-based "Material Considerations for Self-Efficacy" are more suitable to hands-on instruction sessions that prioritize opportunities for faculty to experiment and demonstrate mastery of skill beyond a brief boot camp or one-shot model. For example, an inductive model for improving self-efficacy related to statement 2.3 "I can customize the OER that I find in order to better match my teaching objectives" may involve an extended hands-on learning session involving OER customization rather than limiting the topic to a brief discussion of the open permissions that allow customiza-

tion. Ideological considerations to improve faculty OER self-efficacy should focus on the importance of peer-to-peer sharing, which is consistent with prior studies on the importance of peer collaboration and support. Finally, in the category of support considerations, induction methods based on verbal persuasion may be effective at developing faculty self-efficacy related to identifying support personnel, although those personnel need to be adequately prepared and resourced in order to avoid the pitfalls of empty support promises.

To further improve faculty OER self-efficacy, applying this situational scale to the development of professional development curriculum is a logical application of this research and a highly needed venture, given the lack of empirical research dedicated to how faculty advance from an interest or ideological impulse to address the negative impact on students of the rising costs of textbooks. Furthermore, adaption of the scale to a pre- and post-test model offers the opportunity to improve the rigor and meaningfulness of assessments of the impact of OER pedagogy programs.

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Accessible Open Educational Resources and Librarian Involvement

Silvana Temesio

Universidad de la República, Uruguay

Abstract

In this article, we consider the situation of open educational resources (OER) in virtual environments, taking into account accessibility aspects. We propose the utilization of accessibility metadata through a process in which students and teachers participate in making OER more accessible. This accessibility 2.0 process is a collaborative one that adds metadata to OER in order to make the journey to and from repositories an iterative process of adaptation and improvement.

OER constitute, from an economic point of view, savings in investment in educational materials, but its main importance lies in the possibility of adapting them to each educational situation. In each case, we can generate adaptations that use a language according to the aim of the community and examples that motivate and provoke engagement. OER aid teachers who prepare and plan materials for their courses and adapt quality resources to context and specific needs.

Accessible open educational resources (AOER) constitute OER adaptations that suits to different needs and preferences student pro-

files as indicated by the IMS Global Learning Consortium in the specification IMS access for all. AOER are fundamental to achieving an inclusive education that encompasses not only physical disabilities but also socioeconomic marginalization. Adaptation to preferences of all kinds is a reflection of the uniqueness of students.

AOER do not operate in isolation, but participate in educational processes within institutions that have educational policies within the framework of their country's policies. OER, open educational practices, inclusive education, and educational quality are elements that are intertwined in a more comprehensive scenario.

Within this panorama, librarians are an angular element of these processes. Traditional tasks of description, availability of resources and support for users' informational needs operate in virtual learning environments and in repositories or digital OER libraries. In addition, there are new duties, such as planning of support services for both students and teachers, in the use and production of OER. Reviewing, reusing, adapting, and remixing OER are key processes for open education and require professional involvement to achieve these objectives.

Within a virtual environment and its surroundings, there are several elements acting as an ecosystem: OER metadata, conceptual models of accessibility, learning management systems (LMS), and OER repositories. These elements interact through processes in which students, teachers, and tutors participate. Processes are analyzed from the perspective of the social accessibility model. The aim is for all actors involved to participate. These processes are not confined to courses and virtual environments, but extend to internal or external repositories and the participation of librarians.

The strategy to achieve better access is to provide enriched information collected from different actors in the contribution of metadata and the qualification of needs to adapt or improve resources. This process of improvement and constant adaptation seeks to facilitate natural flows in the teaching-learning process, called "accessibility 2.0."

This proposal is prototyped for accessibility, but it is a general framework for description, use, reuse, and improvement of any aspect of OER.

Keywords: OER, accessibility, inclusive education, inclusive librarian

Recursos educativos abiertos accesibles y participación del bibliotecario

Resumen

En este artículo consideramos la situación de los REA en entornos virtuales teniendo en cuenta los aspectos de accesibilidad. Proponemos la utilización de metadatos de accesibilidad a través de un proceso en el que los estudiantes y profesores participan adaptando REA en términos de accesibilidad. Este proceso de accesibilidad 2.0 es colaborativo y agrega metadatos a REA para hacer que el viaje hacia y desde los repositorios sea un proceso iterativo de adaptación y mejora.

Los recursos educativos abiertos (REA) constituyen desde un punto de vista económico, ahorros en la inversión en materiales educativos, pero su principal importancia radica en la posibilidad de adaptarlos a cada situación educativa. En cada caso, podemos generar adaptaciones que utilizan un lenguaje de acuerdo con el objetivo de la comunidad y ejemplos que motivan y provocan el compromiso. Los REA ayudan a los maestros a preparar y planificar los materiales para sus cursos, adaptando recursos de calidad al contexto y las necesidades específicas.

Los recursos educativos abiertos y accesibles (AOER) constituyen adaptaciones REA tal como lo ha indicado IMS Global Learning Consortium en la especificación Acceso IMS para todos. Los AOER son fundamentales para lograr una educación inclusiva que abarque no solo las discapacidades físicas sino también la marginación socioeconómica. La adaptación a las preferencias de todo tipo es el reflejo de la singularidad de los estudiantes.

Los AOER no operan de manera aislada, sino que participan en procesos educativos dentro de instituciones que tienen sus políticas educativas en el marco de las políticas de los países. Los recursos educativos abiertos, las prácticas educativas abiertas, la educación inclusiva y la calidad educativa son elementos que se entrelazan en un escenario más integral.

Dentro de este panorama, los bibliotecarios son un elemento angular de estos procesos. Las tareas tradicionales de descripción y disponibilidad de recursos, apoyo a los usuarios en sus necesidades informativas, también operan en entornos virtuales de aprendizaje y en repositorios o bibliotecas digitales de REA. Además, hay

nuevas tareas, como la planificación de servicios de apoyo para estudiantes y maestros que usan y producen REA. La revisión, la reutilización, la adaptación y la remezcla de REA son procesos clave para la educación abierta y requieren la participación profesional para lograr estos objetivos.

Dentro del entorno virtual y su entorno, existen varios elementos que actúan como ecosistema: metadatos de REA, modelos conceptuales de accesibilidad, sistemas de gestión de aprendizaje y repositorios de REA. Estos elementos interactúan a través de procesos en los que participan estudiantes, profesores y tutores. Los procesos se analizan desde la perspectiva del modelo de accesibilidad social. El objetivo es la participación de todos los actores involucrados. Estos procesos no se limitan a cursos y entornos virtuales, sino que se extienden a repositorios internos o externos y la participación de bibliotecarios.

La estrategia para lograr un mejor acceso es proporcionar información enriquecida recopilada de la participación de diferentes actores en la contribución de los metadatos y la calificación de las necesidades para adaptar o mejorar los recursos. Este proceso de mejora y adaptación constante busca facilitar los flujos naturales en el proceso de enseñanza-aprendizaje y se llama "accesibilidad 2.0".

La propuesta tiene un prototipo de accesibilidad, pero es un marco general para la descripción, uso, reutilización y mejora de cualquier aspecto de los REA.

Palabras clave: REA, accesibilidad, educación inclusiva, bibliotecario inclusivo

可获取的开放教育资源与图书馆员的参与

摘要

本文中我们考量了虚拟环境中开放教育资源（OER）的场景，将OER可获取性考虑在内。我们提出通过一个由学生和教师参与适应OER可获取性的过程，进而使用可获取性的元数据。这一可获取性2.0版过程是通过合作完成的，它将元数据加入OER，以期将资源库的存取过程变为一个不断适应和提升的迭代过程。

OER由一个经济的视角组成，它节省了教育材料方面的投资，但其主要重点是将自身适应每个教育场景的潜能。在每

个场景中，我们能创造根据社群目的而使用某种语言的适应模式，并创造能激励和促进参与的实例。OER协助教师准备和计划课堂材料，将高质量资源适应不同情景和特定需求。

可获取的开放教育资源（AOER）是OER适应模式的一部分，因为它已被IMS全球学习联合会（IMS Global Learning Consortium）特别指出IMS获取对所有人开放。AOER的重要性在于实现一个不仅将生理残障人士还将属于社会经济边缘化的那部分人包括在内的包容性教育。对所有类型的偏好加以适应反映了学生的独特性。

AOER并非单独运行，而是参与到各机构的教育过程中，这些机构因其国家政策框架而有各自的教育政策。开放教育资源、开放教育实践、包容性教育和教育质量是一个更全面的场景中相互交织的各要素。

在这一全面视角下，图书馆员是上述过程的一个突出要素。资源描述和资源可获取性等传统任务，基于用户信息需求的支持，同样在虚拟学习环境、资源库或OER数字图书馆中运行。此外，图书馆员还有新的职责，例如为使用和创造OER的学生和教师提供支持服务规划。OER的审查、重复使用、改编和重新混合都是开放教育的关键过程，实现这些目标需要专业人士的参与。

虚拟环境内部及其周围存在几个共同充当一个生态系统的要素：OER元数据，可获取性的概念模型、学习管理系统和OER资料库。这些要素在学生、教师、助教所参与的过程中相互影响。透过社会可获取性模型视角分析了这些过程。目的是让涉及的所有行动者都参与其中。这些过程并不限于课程和虚拟环境，而是延伸到内部或外部资料库以及图书馆员参与。

实现更好的资源获取的策略是提供充足的信息，这些信息通过不同行动者参与贡献元数据、满足适应或提升资源需求的过程中获得。这种提升过程和持续的适应过程试图加快教育-学习过程中的自然流动，并被称为"可获取性2.0版"（accessibility 2.0）。

提议本身是针对可获取性而提出，但却是一个用于OER任何方面的描述、使用、重复使用和提升的一般性框架。

关键词：OER，可获取性，包容性教育，包容性馆员

Introduction

Open educational resources (OER) are learning resources that are published under an open intellectual license that allows free use with different purposes. They can be redesigned to adapt to different needs, improved according to specific teacher needs, remixed with other resources, distributed, and shared with others.

Education and higher education in particular use virtual environments as a framework in a standalone or blended manner. These OER, which are displayed in these environments, are a practical tool that helps a growing number of students accomplish educational activities.

OER are also an opportunity to lower costs of educational resources, but one of the most relevant aspects is that they can adapt to each educational situation and be reused as personalized educational quality content.

All students are different; they come from different socioeconomic situations, have difficulties in certain areas of knowledge, have different learning styles, have different expectations or motivations, and sometimes have disabilities that prevent their access to learning content. In brief, they are completely different but equal in their right to access education. Education is a human right and a social, economic, and political integrator. Teachers have an ethical commitment to articulate this right. The message of UNESCO (UNESCO, 2017) is:

... every learner matters and matters equally. The complexity arises, however, when we try to put this message into practice. Implementing this message is likely to require changes in thinking and practices at every level of an education system, from classroom teachers and others who provide educational experiences directly, to those responsible for national policy.

Technological advances in this information and knowledge society have triggered deep changes in all subjects, which are still being processed. In this scenario, Manuel Castells (2000) states the need for changes in traditional education practices from information transmission to innovation, experimentation, and the promotion of autonomy and notes the need for a new teacher role.

The teacher's role is changing, mainly in higher education institutions. Teachers have become tutors, guides, and motivators. Teachers set challenges, focus on innovative pedagogies, and promote participation and collaboration; their hierarchical role comes from a process within the education community rather than from the educational institution. This new role may be accomplished in a virtual environment or a hybrid one. This new role sets new challenges where OER become an opportunity, a support artifact, and a starting point to build personalizations that match each situation. OER can help improve educational quality as they are

involved in iterative processes of reuse, revision, and adaptation.

In this paper, we focus on accessible OER and the role that librarians may have in supporting inclusive education. Accessibility refers to the condition that environments, products, and services must accomplish to be understandable, usable, and practicable by all people (AENOR, 2012). This definition is not focused on a medical problem or a concrete disability that can be treated in isolation, but instead places emphasis on the diversity of people and situations related to access and on the fact that this access must be granted in a general form.

Conceptual Framework

We analyze some aspects that are brought together in the topic:

Social Model of Disability

In each historical stage, societal beliefs and customs create the notion of disability. The medical model of disability began after World Wars I and II and emphasizes impairment in medical terms. This model promotes the idea that persons with disabilities should receive special education separate from other students.

The United Nations (2006) recognizes that disability is an evolving concept and that disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others.

The notion of disability, beyond functional diversity, lies in the limitations that society imposes. The social conception of disability is unlike the standardized model, and presents an equal solution to all rather than catering to individual needs. On the one hand, there are limitations, and on the other hand, attitudinal barriers or environmental barriers impose limitations. The social model advocates acceptance of human diversity and focuses on how to proceed in terms of educational inclusion.

Palacios (2008) states:

> ... deficiency—or functional diversity—would be that characteristic of a person that consists of an organ, a function or a mechanism from the body or the mind that does not function or that does not function in the same way in most people. On the contrary, disability is composed by social factors that restrict, limit or prevent persons with functional disability from living in society. This distinction allowed for the construction of a model that is known as "social" or as "social barriers" of disability. In this way, if in the rehabilitation model the disability is derived from an individual pathology, in the social model it is seen as a result of social barriers and power relationships, rather than an inevitable biological destiny.

Accessible OER

Accessible OER are created taking into account recommendations for acces-

sibility, like WCAG, and include accommodations for different physical disabilities, learning disabilities, and cognitive limitations.

"Núcleo REAA" (accessible open educational resources [AOER] group) is an interdisciplinary research group at the University of the Republic in Uruguay that integrates fields like Education, System Engineering, Librarianship, Sociology, Social Labor, Communication, and Law. "Núcleo REAA" considers OER accessibility to refer not only to having access to the content using sensorial capacities, but also having access to conceptual content, including pedagogical and cognitive aspects. AOER are seen as part of a wide ecosystem of subjects that covers inclusive education, accessibility in learning management systems (LMS), OER repositories, the creation, usage, and reuse of OER, OER metadata, OER quality, data analytics, OER semantic recommendation, and the legal framework.

In this paper, AOER are considered with relation to OER metadata, LMS, and OER repositories.

OER metadata help us retrieve an adequate OER for our needs in a repository. OER metadata will inform us if there are different adaptations of the OER in it, if there are translations to other languages, if there is a version that is adequate for low vision, or if there is a version with captions for hearing impairment. OER metadata can even inform us about OER quality or usage, or

if there are comments from a teacher who used it, and so on.

The usage of metadata to evaluate OER is mentioned in the ESVIAL project (Proyecto ESVIAL); this evaluation was carried out by all end users, experts, and community actors who were involved. This evaluation also took into account content comprehension from different needs profiles and the pedagogical objectives of the educational resource (Moreira, 2013).

Librarians are community actors who can describe OER in repositories and LMS. Librarians manage metadata standards, specifically accessibility metadata that can lead to different adaptations. Librarians are also involved in teaching about generating digital accessible content. Librarians are involved in creating accessible digital content.[1]

Along these lines, librarians can foster easy reading adaptation of content (DISCAPNET) in order to make content clearer and easier to understand for users with intellectual disabilities.

Concept Model "IMS"

Underlying the idea of OER metadata, there is a more comprehensive conceptualization that takes into account two entities—OER and students—and how they interact. This conceptualization is developed by the IMS Global Learning Consortium (IMS).

IMS is an organization that strives to enable the adoption and impact of innovative learning technology. It is formed by educational institutions,

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1   http://www.bibliotecaaccesible.ei.udelar.edu.uy/.

suppliers, and government organizations and develops open interoperability standards.

IMS has a double perspective: the user and the educational resource. What is desirable is that user needs and OER characteristics match. If there is no match, then an OER adaptation is needed. There is a user specification—Personal Needs Preferences (IMS PNP, 2012)—that establishes the user needs and preferences profile.

In this profile, there is an attribute called "Access mode" that can be defined as the sensorial or cognitive way that a person processes or perceives information. Access mode domain can be textual, visual, auditory, or tactile. Textual means that the text can be read by a screen reader. The resource also has a specification (IMS DRD, 2012) that establishes the resource access mode. IMS establishes a conceptual model, an abstract way of thinking about the situation as it is shown in Figure 1. OER metadata schemas implement this conceptual model and express it its own way.
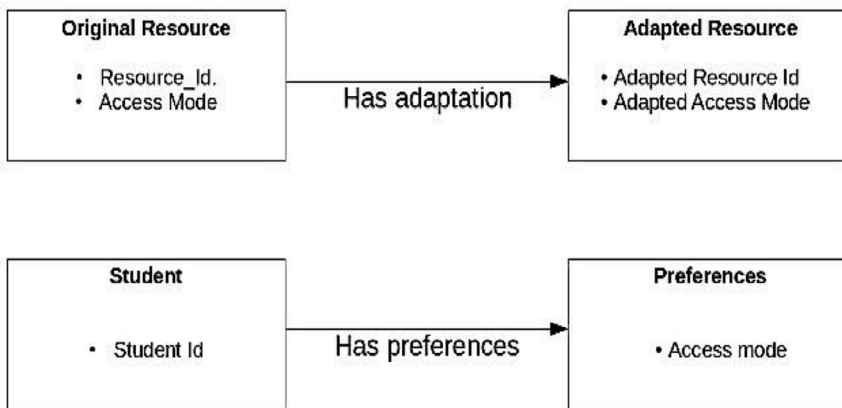

Figure 1. IMS concepts

*Alt descriptions for Figure 1.

There are four rectangles representing four entities:

Entity 1: Original resource with attributes: resource_id and Access mode

Entity 2: Adapted resource with attributes: Adapted resource_id and Adapted Access mode

There is a relationship between Entity 1 (Original resource) and Entity 2 (Adapted resource). This relationship is schematized with an arrow that connects Entity 1 to Entity 2 with the description "has adaptation."

Entity 3: Student with attribute student_id

Entity 4: Preferences with attribute Access Mode

There is a relationship between Entity 3 (Student) and Entity 4 (Preferences). This relationship is schematized with an arrow that connects Entity 3 to Entity 4 with the description "has preferences."

DRD and PNP specifications work together to provide students with those resources that match their needs and preferences. The original resource has an access mode and can have many OER with different adaptations that constitute different versions (e.g., subtitle, short text, long text) with adapted access mode. The concepts models that underlie the specification are independent from a representation or technological deployment in particular. The model foresees extensions from a common core that can be extended for specific situations. The common core interoperability is accomplished and extensions permit flexible personalization to adapt to students' specific needs.

Learning Management Systems (LMS) and Repositories

An OER repository is something similar to a digital library or a digital collection but repository items are more heterogeneous than in a library. Taking a look at Merlot repository for instance (http://info.merlot.org/merlothelp/topic.htm#t=MERLOT_Collection.htm), we can observe that items are in different formats, cover different topics, and are different in their pedagogical format; as a result, the strategy for locating OER is essential as is the metadata that describe the OER.

LMS are the places where teachers produce or present OER in their courses. These OER can be stored in institutional repositories or can be kept in the LMS inside the course. OER metadata in LMS are generally functional for the service that the LMS offers and are of a general descriptive type.

If OER are stored in an institutional repository, they can be shared with other repositories or federations of repositories. From these repositories, OER can be used in other courses by other teachers at other institutions; these teachers will reuse them just the way they are or create new versions or versions adapted to meet accessibility requirements.

The European project EU4all[2] in 2010 noted that inside virtual environments, the librarian has the role of adding and adjusting OER metadata and particularly providing accessibility metadata, as shown in Figure 2. Grupo de Investigación AdeNu (2015) from UNED[3] in EU4forall project explained that in the OER metadata repository (MR), a repository of accessibility characteristics of OER and other activities, there are two roles connected with performing improvements in accessibility: transformation technicians and librarians. Both roles involve adapting OER and setting accessibility metadata. Mortera Gutiérrez and Escamilla de los Santos (2009) state that librarians contribute not only to setting OER metadata, but also to evaluating metadata to ensure OER quality.

OER Metadata

OER are mainly located in LMS or OER repositories that are similar to virtual libraries. OER must be catalogued and

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2   https://www.tecnologiasaccesibles.com/es/proyectos/eu4all.

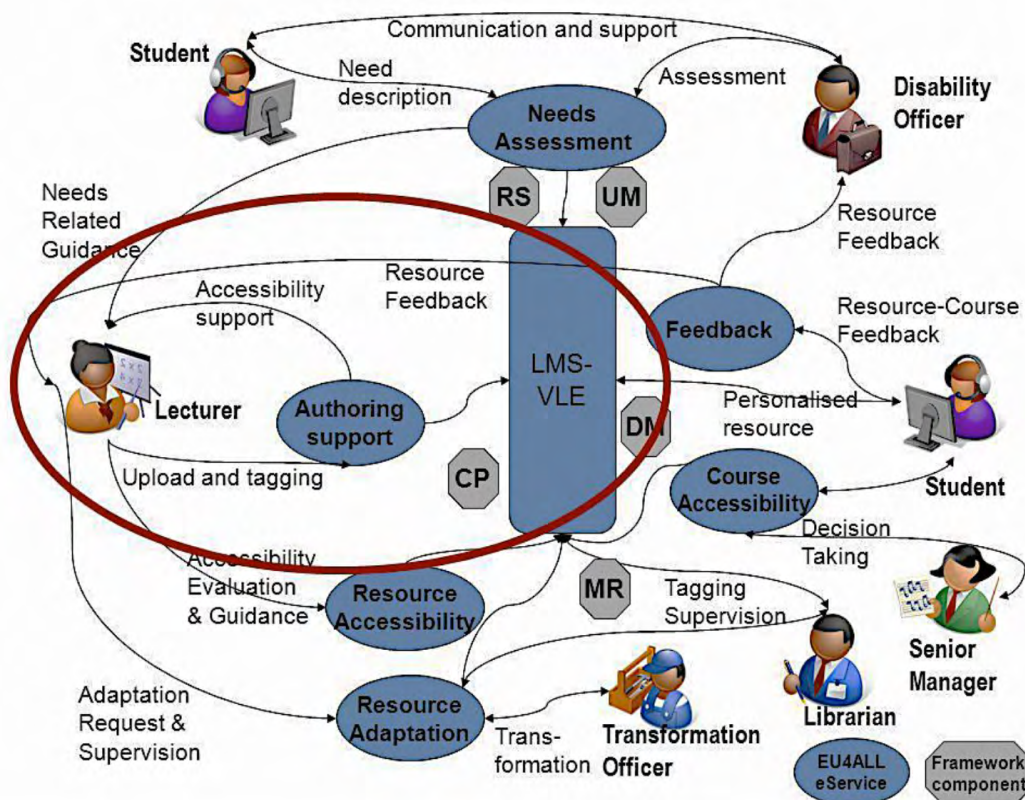3   https://www.uned.es/universidad/inicio.html.

Figure 2. Actors in LMS schema (retrieved from EU4all presentation).

*Alt Description for Figure 2

This illustration schematizes the different actors and processes in an LMS and its relationships.

Actors: student, librarian, senior manager, lecturer, disability office and transformation officer

Processes: needs assessment, feedback, resource adaptation, resource accessibility, etc.

Relationships: needs description, assessment, communication and support, feedback, tagging supervision, etc.

Her is an example of how this would be schematized: a) There would be a student (actor); b) needs description (relationship); and c) needs assessment (process), that is invoked. The disability officer administers the assessment and provides the student with communication and support. Important to note is that the librarian (actor), who supervises tagging for the process "resource adaptation."

indexed to encourage discovery and reuse. Cataloguing OER means adding metadata that describe OER characteristics with an appropriate schema that permits information retrieval. Indexing OER is the addition of a subject access point that behaves in the same way as any other type of resource.

Discovery and reuse operations are joined. First, we have to locate the OER that suits our needs and then we can reuse it without changes or we can

adapt it to our specific situation, creating a new version that is linked to the original, but that constitutes a variation. OER reuse allows for increased quality and greater productivity in LMS (Sans Rodríguez, 2008).

Wiley (2001) considers metadata to be a set of information that describes a resource using a standardized structure, making the retrieval of and access to OER possible. Metadata have great importance in the process of openness, use, and reuse, because metadata improve OER location. If the metadata schema considers accessibility, it permits specific retrieval according to the accessibility needs of the user.

OERs have general metadata just like any other resource, but they also have specific characteristics inherent to the field of education. General metadata can be described using, for instance, Dublin Core schema,[4] but this type of general schema does not cover specific or relevant aspects of OER. To catalogue these aspects, an appropriate metadata schema must be used. That is the case of learning object metadata (LOM), which consider relevant learning attributes from resources.

LOM and their profiles have entries to describe accessibility in accordance with IMS, as does Agent-Based Learning Objects Metadata Standard—OBAA—a schema that was born as a variation of LOM.

Metadata are also important for interoperating between different repositories or between federations of repositories and virtual environments.

Librarians must play an active role in describing and indexing OER and assessing teachers or designers of OER.

Proposal

From analyzing OER metadata, specifically accessibility metadata, we propose a minimal accessibility metadata set, taking into account the IMS model (Temesio, 2017). Taking LOM as a basis, slight changes are proposed, such as the ones displayed in Figure 3:

- Creation of an accessibility category with one piece of metadata: access mode.

- In the LOM category, "relations," the relation "is equivalent (accessibility)," and its inverse "has equivalent (accessibility)" are included, as can be seen in Figure 3. This added element allows a given OER to be connected to its adaptations or in some cases an adaptation to be connected to the original OER.

- In the category "annotations," where comments regarding accessibility are included, the metadata access mode is introduced when it is added as a comment proposed by another actor different from the author and the role of the person who makes the comment (student, professor, librarian, etc.). These comments are a way of participating and collaborating in order to improve the accessibility process, as a part of "accessibility 2.0".

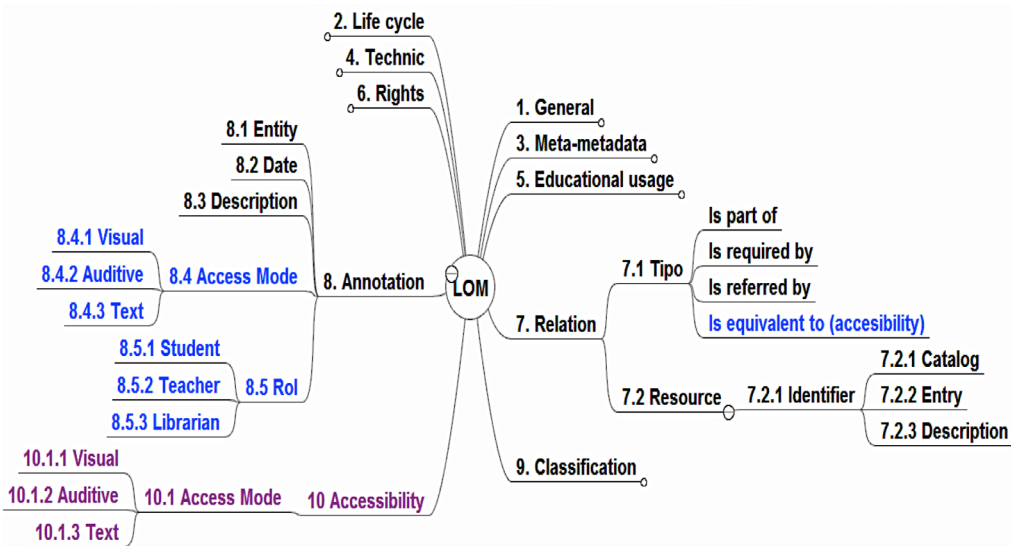
4   https://www.dublincore.org/.

Figure 3. LOM changes proposed.

This metadata and the IMS model are included in the LMS and a Moodle prototype is downloadable at:

- https://sourceforge.net/projects/accinf/

- https://sourceforge.net/projects/accinformacinrecursos/

The prototype implements the situation when students within a course in LMS find a resource and cannot access it and then:

- They can find if the resource has adaptations that match their needs and preference profile and ask to be included in the course.

- If the resource does not have an appropriate adaptation, then the student can comment on the situation in order to initiate a process in which the teacher can make the necessary adaptation.

- If the resource has incorrect metadata and it is not completely appropriate, the student can provide adequate metadata and explain the problem by adding a comment. This could be the case when a student has accessed mode text and the resource has images without alternative text that can be read by a screen reader. In this case, the OER is tagged incorrectly as text because there are images that are not described. In this case, the student explains the issue and tags the resource as visual access mode, indicating that visual parts have not been described. Later, this OER can be adapted to address the required comment, and the tutor can input image descriptions.

- Another case could be when tutors or teachers find that the alternative text in images is confusing so they comments on the need to provide a

long description adaptation to images. These comments facilitate the adjustment of OER accessibility.

The prototype also implements some duties at the teacher level:

- It permits the tagging of OER access mode, which means that a teacher can input the corresponding value to metadata access mode (text, visual, or audio) when the OER is uploaded.

- It permits the declaration of OER adaptations and the relationship with the original OER so that students can find the required resources.

- It permits the export of resources with its rich metadata. The metadata of an OER are accompanied by its access mode, equivalent resources that have different adaptations tagged with their access mode, and all of the comments, with correction to tagging and source (student, teacher, librarian, other). The tagging source might be different according to the stage the course is in: student or tutor during performance or teacher or librarian during course evaluation or implementation. Librarians can be part of a team in the process of improving accessibility and quality at the level of a course or a program with several courses.

The following video shows how the plugin acts according to the prototype described above: https://youtu.be/9T3S7zmwa6o.

When the OER goes from LMS to an institutional repository to be shared, all of its metadata is exported too. For instance, OER1 is exported and the metadata provide information about the access mode of OER1, if there are adaptations (i.e., OER2), the access mode of each adaptation, the comments about OER1, OER2, and all adaptations mentioned, and the source of these comments. The information is standardized and can be exported and imported between different frameworks in an interoperable way.

Accessibility is not seen as a static phase, but rather as a dynamic process in which the student, teacher, tutor, librarian, and anyone who is involved can participate and collaborate to create improved resources and variations that lead to accessible and quality content. Accessibility is a process in which several actors participate: some asking for accessible resources, some correcting the qualifications of accessibility, some generating adaptations, some reusing other adaptations and improving them, some giving access to resources and adaptations with their metadata, some generating metadata, and so on. These processes occur at different stages and in different frameworks, and the path changes. Nevertheless, we do not know what paths we can add or how we can get rich information about the resources at each moment (Temesio, 2016).

This proposal is prototyped for accessibility, but it is a general framework for description, use, reuse, and improvement of any aspect of OER. The proposal can improve any aspect of OER in a collaborative way.

Conclusions

We have briefly described an ecosystem in which OERs participate and some accessibility aspects in order to outline the complexity in which diverse actors and elements participate. In this outline some considerations need to be made:

- Metadata usage and the adherence to standards are important. By doing so, OER and their accessibility aspects can be described.

- OER must be analyzed and evaluated in a learning-teaching context, in the course where OERs are used, and where students' needs and preferences have an important role. OER users are the most significant element for evaluating OER accessibility because they can express whether an OER is appropriate for their needs and preferences and can suggest how it could be improved.

- Librarians can contribute with adequate metadata and by doing so they help manage OER collections and "accessibility 2.0." Librarians manage OER metadata schemas, so they can input metadata, help by explaining how to input metadata to producers, teachers, or students, and add accessibility metadata when testing OER.

- Librarians can participate in adaptation processes, particularly in terms of accessibility, and collaborate in teacher training to produce accessible OER. Participation of librarians in multidisciplinary groups and technical offices that adapt adequate OER to the culture and context in which those OER will be used is of great importance.

- Librarians have reference expertise applied to LMS and OER repositories that is fundamental to supporting the proper characterization that facilitates reuse.

These are some activities that information professionals can develop. There are certainly others that have not been mentioned. To accomplish these activities, there is need to train librarians in this expertise area and spread this knowledge in inclusive education processes. We can call this librarian an inclusive librarian: a librarian that has knowledge about creating accessible content, accessible OER metadata, and exploring repositories to get adequate OER and its adaptations, and in general has the training to support teachers and students on aspects related to accessibility.

Education institutes are changing and libraries inside them are too. Libraries have new goals, new users, new ways of finding and producing information, and new ways of practicing reference. Nevertheless, librarians will always have a role to support education, to support inclusive education, to move to new scenarios, and to participate in the processes to support all students, as diverse and unique as they are.

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Librarian Advocacy for Open Educational Resource Adoptions and Programs

Megan Dempsey, *Raritan Valley Community College*

Alejandra Nann, *University of San Diego*
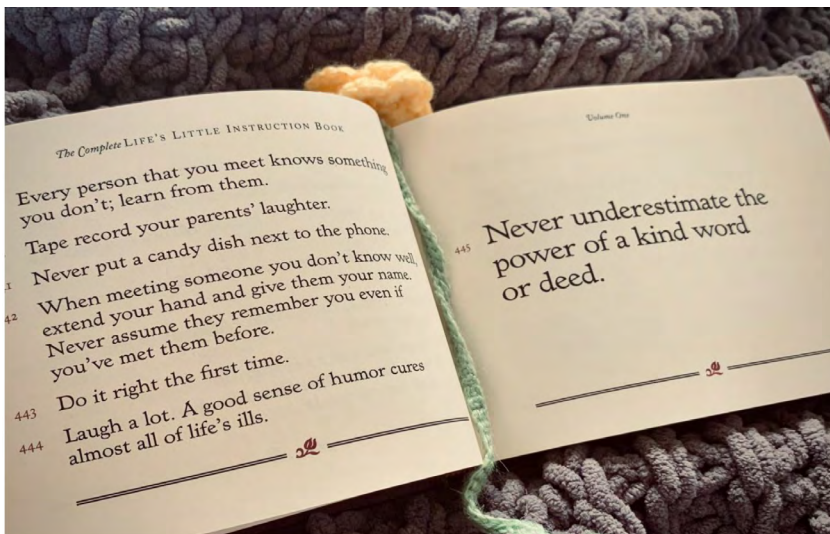
Abstract

Academic librarians are resource finders and are always available and ready to assist faculty and students with research help. Now, with the rising cost of textbooks across the country, movements have developed to help students save money through textbook affordability initiatives and open educational resources (OER). Without hesitation, librarians, along with other constituents, began to take a closer look at initiatives that would be feasible for their institution and for saving students money on textbooks. The process of creating an initiative, finding funding or incentives, and working with administration and faculty is no easy feat. Faculty and administrators want to save students money, but are often skeptical as to whether the initiative will work and whether the money and time spent is worth it. This article will address various scenarios and challenges that librarians may face when discussing different options for faculty and stakeholders on campus. It will also provide examples of ways librarians can collaborate with faculty and others in educating them on the purpose of OER and how to incorporate these free, high-quality resources into their curriculum.

Defensa del bibliotecario para programas y adopciones de Recursos Educativos Abiertos

Resumen

Los bibliotecarios académicos son buscadores de recursos y siempre están disponibles y listos para ayudar a los profesores y estudiantes con la ayuda de investigación. Ahora, con el creciente costo de los libros de texto en todo el país, se han desarrollado movimientos para ayudar a los estudiantes a ahorrar dinero a través de iniciativas de asequibilidad de libros de texto y Recursos Educativos Abiertos (REA). Sin dudarlo, los bibliotecarios, junto con otros constituyentes, comenzaron a analizar más de cerca las iniciativas que serían factibles para su institución y ahorrarían dinero a los estudiantes en los libros de texto. El proceso de crear una iniciativa, encontrar fondos o incentivos, trabajar con la administración y la facultad no es tarea fácil. El profesorado y los administradores quieren ahorrar dinero a los estudiantes, pero a menudo son escépticos sobre si la iniciativa funcionará y si el dinero y el tiempo invertido valen la pena. Este artículo abordará varios escenarios y desafíos que los bibliotecarios pueden enfrentar al analizar las diferentes opciones para el profesorado y las partes interesadas en el campus. También proporcionará ejemplos de formas en que los bibliotecarios pueden colaborar con el profesorado y otros para educarlos sobre el propósito de los REA y cómo incorporar estos recursos gratuitos y de alta calidad en su plan de estudios.

Palabras clave: Recursos Educativos Abiertos, bibliotecarios académicos, iniciativas REA, asequibilidad de libros de texto

图书馆员对开放教育资源采用及相关计划的倡导

摘要

学术图书馆员是资源发现者，且一直为教师和学生提供研究协助做好准备。鉴于现在全国课本费用不断上涨，通过课本可负担性倡议和开放教育资源（OER）帮助学生省钱的相关运动已发展起来。图书馆员与其他相关人员毫不迟疑地开始以更仔细的方式看待那些既能对其所在机构可行又能帮助学

生节省课本费用的倡议计划。创立一个倡议，寻找经费或资金激励，与管理处和教师合作，这一过程并不容易。教师和行政人员想要帮助学生省钱，但却时常对倡议能否发挥作用，投入的金钱与时间是否值得持怀疑态度。本文在探讨校园教师与利益攸关方的不同选项时将研究图书馆员所面对的不同场景和挑战。图书馆员在帮助教师及其他人员了解OER目的时能如何与其进行协作，后者如何将这些免费的高质量资源融入课程中，本文对此提供了实例。

关键词：开放教育资源，学术图书馆员，OER倡议，课本可负担性

Introduction

Academic libraries are increasingly being called on to assist with or lead open educational resource (OER) initiatives for their institutions (Smith 2018; Todorinova & Wilkinson 2019). This new responsibility places academic librarians in the driver seat of advocating for student success through textbook affordability, which is a natural extension of their traditional role advocating for student success through access to resources. During this advocacy work, however, librarians and library administrators will likely encounter difficult conversations and tough questions that appear to be outside their realm of expertise. Librarians involved in OER advocacy will need to engage in discussions with key constituents on their campus, including faculty, administrators, fellow librarians, and students; in other words, nearly everyone on campus. Many of these are constituents with whom librarians are accustomed to interacting, but for different purposes, and they

may have been more focused on provision of typical library services rather than advocacy of free course materials. Thus, librarians may feel uneasy about discussing textbook selection with faculty, who are unarguably the experts in their discipline. Discussions with campus administrators about stipends, release time, and tenure and promotion processes might seem beyond some librarians', and even library administrators', comfort levels. Conversations with fellow librarians about how to support discipline faculty who are considering OER can be similarly challenging. Yet librarians' expertise as resource-finders, their ability to instruct others on how to effectively use discovery tools, and their well-established role in supporting curricular activities for academic departments perfectly situates them for expanding librarian-faculty collaborations to integrate OER into courses. This paper aims to be a helpful guide for librarians and other advocates on college campuses who are committed to implementing or growing an OER program but feel underprepared to deal

with the challenging conversations that will inevitably occur. We offer tested and proven practical strategies for responding to a variety of concerns and barriers from several different campus constituents. In doing so, we want to acknowledge and thank the members of the open community from whom we have learned these strategies; the value placed on sharing by this community is unmatched and this paper is nothing short of a remix of research, statements, soundbites, and ideas that have been shared with the authors to make us better advocates for open practices.

In crafting an advocacy pitch for OER, librarians should consider their audience, the motivations for adopting OER, and the common misperceptions and hesitations around OER. Each audience will have different motivations for adopting or advancing OER on campus and different reasons for not participating in OER programs. Whether an institution is at the planning, implementation, or adoption phase of an OER initiative, it is crucial for librarians to consider which audience is most essential to get on board and which piece of persuasive data or pitch will influence them. Clearly, it is most important to find faculty champions who recognize the importance and benefits of OER, but how do librarians encourage and support those faculty who are more hesitant or have subscribed to misconceptions about OER? Administrators are often the target audience when seeking institutional support and funding. How can librarians cultivate and contribute to those larger conversations that need to happen at the upper administrative

levels? Librarians have been uniquely positioned to interact with students, helping them navigate confusing online homework managers, locate or access course reserves through the library, and search for cheaper editions of their assigned textbook. How can librarians leverage this knowledge of students' "get by" behaviors to advocate for OER adoptions?

Responding to Challenges

Here are some questions and comments that librarians may likely encounter when promoting OER on campus along with suggested approaches for how to answer and engage in further discussion.

"I'm using the best textbook on the market for my class. Why would I switch?"

Faculty who are unhappy with their current textbook may be more inclined to implement an open textbook. But what about faculty who are satisfied with their current $150 textbook and feel strongly that it is the best course material available? Answer: "Students can't learn from textbooks they don't have" (Allen and Cohen 2017). No matter how effective that textbook is or how renowned the author is in the field, if students cannot afford it, or resort to part-time access to the textbook (i.e., library reserves or borrowing it from a friend), they are very likely not learning from it, nor will it become a fixture on their bookshelf for future reference. Despite a faculty members' best intentions, student attitudes about

the longevity of their textbooks have changed; cost more often supersedes value and students are choosing temporary course materials if they are more affordable. Librarians having this discussion can ask faculty if the majority of their students have the textbook in the first week of classes (they probably do not), or how often students seem to fall behind because they are not reading the textbook. This conversation, even with a resistant faculty member, may bring awareness to issues of textbook affordability and how that challenge is playing out in their classroom. The faculty member who wrote off poor performance because "they are not reading the textbook" may now start to wonder if the real issue is that students are not buying the textbook.

If faculty are adamant about keeping their expensive textbook, there are other alternatives to get them acquainted with OER. Librarians can share with faculty OER they find that coincide with course requirements or look for faculty members from other institutions using OER for a similar course. Librarians may also ask faculty to consider including an open access (OA) article in their course readings or to listen to an online lecture from an OER repository. Offering small methods for implementing OER may persuade faculty over time to support and implement OER for a single class or more. Exposure to high quality OER can help overcome one of the biggest barriers to faculty adoptions: concerns about quality.

"We're only using half of this textbook, but there's nothing that really fits my class" or "I don't use a textbook."

These comments may come from faculty members *or* students and are a prime opportunity to begin a conversation about the benefits of OER. Unlike faculty who are perfectly happy with the standard text in their field, those who already recognize that existing commercial textbooks do not meet the needs of their course are well situated to consider an open textbook or a remix of openly licensed materials. Move the conversation beyond the issue of affordability (which is not an issue in a class where the instructor does not require a textbook purchase) and into the flexibility of open content. Explain to the faculty member that chapters from open textbooks can be remixed with chapters from other open textbooks or various OER. Unlike a commercial textbook with a fixed and immutable organization and structure, faculty using open textbooks have the freedom to modify and reorganize the content of an open textbook. Many faculty who are motivated by affordability to switch to OER find that what they ultimately appreciate most is the flexibility and adaptability of the resources: the content can be customized to best meet the needs of the students rather than having to adjust the syllabus to fit the commercial textbook.

Although truly open materials are the most flexible and give students the opportunity to own their education forever, sometimes using traditional

textbooks or articles from library subscribed resources will also save students money. Faculty tend to use what they are used to and they keep assigning the same textbook, when really only a couple of chapters are relevant or valuable to their curriculum. Librarians can suggest meeting with reserves staff and see if it is possible to put those one or two chapters on reserve with appropriate copyright permissions, and then guide faculty through various OER repositories to find supplemental material that will add to their curriculum. Faculty who do not use a traditional textbook can be encouraged to integrate scholarly articles they find in the library's electronic resources. Although not open— or free for that matter—these resources are free to students and introduce faculty to the idea of remixing resources.

"What's a $150 textbook in the grand scheme of the cost of college?" or "They can afford it."

Related to these comments is an expectation among some faculty that "I did it, so they should too." Like many aspects of higher education in the twenty-first century, however, the textbook market has changed dramatically from when many of us and our colleagues were undergrads, as has the overall cost of attending college. For many students, the sticker-shock of college textbooks comes to them as an unexpected cost. Although institutions are now required to disclose to potential students how much they should budget for books and supplies, this cost is often not real to students until they are standing in the bookstore looking at the overwhelm-

ing number of options, most of which they consider completely unaffordable. Although the cost of one textbook for one course might seem insignificant in the grand scheme of higher education costs, a student taking a full course load may need to budget well over $1,000 for all of the required textbooks, and this unexpected financial obligation could be the breaking point for a student or family that is already struggle to afford a college education (Senack 2014). Librarians can share with faculty the study by Student PIRGs, which found that 65 percent of students decided against buying a required textbook because it was too expensive, and that nearly all of the students that did so admitted being concerned that not having the required textbook would affect their grades. Even at institutions where students are less likely to be struggling financially or where they are not mandated by the state to consider lower-priced course reading options, there will always be a number of students who would benefit from courses with free or low-priced course reading. Additionally, it is important to educate faculty that although students at their particular institution can afford the cost of textbooks, the OER movement goes beyond their classroom and their students.

A highly effective method for communicating to faculty the reality of students' textbook behaviors is to interview actual students about their experiences. If possible, librarians and OER advocates can record videos of students describing how they obtain textbooks, what influences them to purchase a textbook or not, how often they use a

textbook when they do or do not purchase it, and what creative means they use to avoid paying for a textbook they consider overpriced. Hearing directly from students can deliver a powerful message that might surprise some faculty into thinking twice about how OER might be an attractive option for their course.

"What about all the supplemental materials my current publisher provides?"

Fortunately as the OER movement gains momentum and faculty teaching high enrollment courses recognize the benefit to students of providing free and open course materials, this issue can be less of a concern for faculty in certain disciplines. When a faculty member relies on publisher materials that accompany a textbook, the answer may be to recommend looking for existing open textbooks and related platforms, many of which now have available instructor slides, quizzes, test banks, and other supplemental materials. For example, math faculty may consider switching to MyOpenMath (https://www.myopenmath.com/), an alternative to Pearson's MyLab Math (https://www.pearsonmylabandmastering.com/). Additionally, other platforms built on open resources, such as Libretexts (https://libretexts.org/) and WebWork (http://webwork.maa.org/index.html), also contain helpful supplemental materials.

Faculty may also be concerned about cheating when materials are so "openly available"; in these situations, librarian advocates may need to help faculty face the harsh reality that every

answer to every problem and test bank provided by their commercial publisher is available somewhere online for the enterprising cheater to find. Cheng and Crumbley (2018) find that close to half of the students in a course had used a publisher test bank to memorize question-specific cues and the correct answers, and those students performed significantly better on exams. Perhaps the answer, "they're doing it anyway" is not the best to give, but concerns about increased cheating due to the openness of course materials can be alleviated through educating faculty on the reality of students' cheating behaviors.

If a funding source has been identified and librarians are advocating for course conversion projects, they can ask faculty how many others teaching the same course would be willing to work on OER adoption and try to put together a team who can create the materials that will no longer be available from publishers. Successful OER projects and initiatives are team efforts, including individuals other than teaching faculty who may also be able to contribute to the creation of supplemental materials. Librarians themselves can assist faculty in locating multimedia content—open or licensed—that can be embedded in course management systems. Instructional designers can be instrumental in assisting with the creation and accessibility requirements of materials beyond the textbook. Teams of faculty can divide up the work of creating test bank questions, instructor slides, review packets, and whatever else is needed. Course leads or coordinators may have come to rely on pub-

lisher ancillaries to ensure that adjunct/contingent faculty are prepared with the necessary materials to teach a class even on short notice; a team of faculty who takes the time to develop those ancillaries for an OER course can then roll out that course package to any other faculty member in much the same way publisher materials would be provided. Librarians can also play an important role in helping faculty store and share those materials for wider use and should consider offering those services as they are having this conversation with a faculty member.

"Budgets are tight. Why should I allocate money to faculty stipends for OER?"

If selecting course materials is considered part of a faculty member's professional responsibility, administrators may not understand why they are being asked to fund faculty stipends for OER adoption and creation. Librarians who are advocating for funding to support OER should be prepared to explain how an incentive (either in the form of stipend, time, or professional recognition) is important in moving an OER initiative forward. Oftentimes, it is easier for faculty to choose a popular textbook because looking for other resources takes time. Varying degrees of monetary stipends can compensate faculty for the significant amount of time that is typically required to replace course materials with OER, sometimes up to as much as forty hours of work. OER advocates recognize that "instructors feel pressed for time" and "colleges need to show they understand that before ask-

ing them to embrace a shift away from textbooks" (Jaschik 2017); stipends are such a demonstration. Before librarians discuss funding with administration, it is crucial to have the library director or dean on board and helpful to have a few faculty members who already embrace OER.

Particularly when asking for monetary stipends from potential funding sources outside of the institution, librarians can demonstrate the significant return on investment (ROI) afforded by OER adoptions. Consider a $3,000 stipend awarded to a faculty member who is currently using a $150 textbook. If there are forty students in each section and the faculty member teaches three sections in one semester, the student savings for that semester will be $18,000. (Yes, it is unlikely that all of those students would have purchased a new textbook for the course, but let's go for the big win on this one.) Identify likely adopters and calculate the potential ROI to share with possible funding sources. Get really creative and pitch OER stipends to donors as a scholarship that is awarded not just to one student, but to hundreds of students, semester after semester. Valentino (2015) notes that donors like to support programs that have a cascading effect, that make a significant impact on an important issue, and that others have supported. If campus administration is reluctant to commit institutional funding, librarians can ask for assistance from donors seeking to fund a student success or completion initiative.

"Our strategic plan is focused on enrollment and retention. What does OER have to do with those issues?"

If librarians find themselves in the position to advocate for OER support at the administrative level, connecting the goals and benefits of OER to institutional strategic planning can move those conversations forward. What does OER have to do with enrollment and retention, the two items that are likely high on any institutions' list of strategic priorities? Research shows that OER may help with both. Fischer et al. (2015) find that students who took an OER course enrolled in a significantly higher number of credits the following semester. Although they acknowledge the difficulty in establishing causality between OER and enrollment intensity, the conclusions of this large scale study across fifteen different undergraduate courses at ten institutions suggests "enhanced probability" of a relationship. Colvard, Watson, and Park's (2018) findings that Pell eligible students had dramatically reduced DFW rates in courses using OpenStax textbooks suggest that OER could be one among many high-impact practices that improve retention among more vulnerable populations. The body of research around OER is growing quickly; librarians advocating for OER can turn to resources like the Open Education Group (https://openedgroup.org/) for published research on OER impact that can be shared with administration and faculty.

"What about these inclusive access packages offered by the publishers? Aren't they a sufficient way to save students money?"

The concept of inclusive access is appealing to many bookstores and universities across the nation. However, there are a few considerations beyond cost savings. The impingement on academic freedom is particularly troublesome because in order for students to really save money, faculty would have to agree to use textbooks from one particular publisher or vendor. If faculty truly have academic freedom to select the most appropriate course materials, then there is no guarantee that a student who pays for an inclusive access package will have access to all of their textbooks under that package. Additionally, e-textbooks through inclusive deals are really rentals because publishers typically only offer access for one semester or academic year for the quoted price. Bookstore rental plans currently in place have similarly restricted students' ability to "own" the education they are paying for, but at least students often still had the choice to purchase used or older editions if they wanted a text they could write in or keep. With inclusive access plans, which are also moving in the direction of digital-first or digital-only (i.e., no print textbook included), student autonomy is further eroded by publishers. While OER are also digital-first, print options are typically more readily available and are far cheaper, while the digital versions are downloadable, are available in more accessible formats, and include permission to modify the content as needed to

fit a student's learning style. As Nicole Allen, Director of Open Education for SPARC, states, inclusive access is "the opposite of inclusive, because it is premised on publishers controlling when, where and for how long students have access to their materials, and denying access unless they pay for it" (McKenzie 2017). There is really no guarantee that anything offered on a publisher platform—notes or the text itself—will be available for future use by the student. The platform itself may cause technical difficulties for students and is likely designed in a way to lock down the content for only those uses prescribed by the vendor.

In addition, as we as a society grow more and more concerned about online privacy, the selling and bartering of personal data, and the lack of transparency around what corporate entities are doing with our personal data, librarians in particular should be raising concerns with faculty and administration about students' online privacy when an institution signs on for inclusive access. Although institutional contracts with publishers may state that data covered under FERPA is not collected, students are required to accept publisher terms of use and end-user license agreements that have been found to include language giving permission to collect, use, and share personal information (Meinke 2018). Librarians may be uniquely positioned on campus to raise these concerns with administration and educate on data collection and sharing practices that do not have students' best interests at heart.

"Won't the bookstore have a problem with this?"

With the rising use of online retailers, Amazon for example, bookstores have understood that their main revenue is from university apparel and other merchandising. Steven Bell (2018) explains that "libraries and bookstores are not adversaries but share a common goal. Both want students to succeed academically." He encourages librarians taking on OER initiatives on their campus to schedule a meeting with bookstore management and get an idea of their workflow in regards to cost savings for students. It is also pertinent that librarians educate the bookstore on the importance of OER, if they are not familiar with the concepts, and discuss with them strategies to facilitate the implementation of OER among various departments on campus. Creating a textbook affordability taskforce that includes representation from the bookstore will allow several constituents on campus space to discuss various steps or initiatives that can be taken to help students save money on textbooks. One way the bookstore can participate is to offer print copies of creative commons licensed OER or open textbooks for students and faculty who still prefer print. The key to this relationship is communication with the bookstore throughout an OER initiative.

"I'm just a librarian. Why would I talk to faculty about what textbook they use?"

Stop by the reserves desk during the first week of classes at any academic library that offers textbooks on reserve

and it will be evident how many students do not own (or even rent) their course materials on the first or second day of class. At some academic libraries, the textbook reserve collection may be the most highly circulated collection. Librarians regularly hear from students how they struggle not just with the cost of their textbooks, but with the process of obtaining and using access codes for homework managers or with bookstores that do not have the correct edition in stock. As accessible student service providers, librarians often have firsthand knowledge and observation of students' challenges with course materials and find themselves helping students troubleshoot or find workarounds. Librarians also are aware of and maybe even witness the illegal downloading and printing of pirated textbooks on library computers in ways that faculty may be completely unaware of. Who is in a better position to bring these issues to faculty members' attention? Liaison librarians in particular have likely already built relationships with departments and faculty that they can tap into for starting conversations about the reality of how students (fail to) access course materials.

Librarians also have unique skills that are essential to finding and evaluating OER. Some OER repositories may be manageable for faculty to negotiate, like the Open Textbook Library, which is intentionally designed to replicate the interface of textbook publisher websites. However, for subject areas where faculty may need to do more curation of resources than straight adoption of an open textbook, librarians' ability to search, filter, refine, and evaluate results is unmatched. Beyond this, West (2016) notes that the work librarians already do in the areas of instruction, outreach to faculty, service to the institution, and especially collection building is a natural fit for including OER. She states quite eloquently, "The all-encompassing work of supporting a useful, organized, relevant, timely, and healthy collection of materials that both stimulates scholarly inquiry and meets student information needs is an ongoing challenge for all libraries. That very challenge has made us uniquely talented at helping our colleagues make decisions about educational materials" (1439). If that is too much, the simple answer is: this is the kind of work that librarians do all the time, in preparing course reserves, selecting materials for collection development, teaching information literacy skills, and more.

"Are you expecting the librarians to do *all* of this?"

Simple answer: of course not. This answer might cause the conversation to circle back to the previous question, but the bottom line is that whether librarians are voluntarily taking on OER advocacy for student success and social justice reasons or they have been tasked with organizing an initiative because they have a track record of productive collaboration, a successful OER project or initiative will require participation from several individuals focusing on what they each do best. Working alongside librarians and faculty may be instructional designers, accessibility experts, technology services, and

even students. Team approaches to OER selection, implementation, and assessment have proven to be not only the most efficient and successful, but also to be the most robust, innovative ,and sustainable. What lone advocate librarians may need to communicate to their colleagues is that while librarians should not be expected to do this work in a vacuum, all librarians at the institution—not just the "OER librarian," scholarly communications librarian, or equivalent—could potentially contribute something valuable to a campus OER initiative. When advocating to fellow librarians, it is worthwhile to first seriously consider what those colleagues can bring to the table and then emphasize the unique value they will each add to the project when asking for their participation.

Conclusion

The process of creating an OER program, working with administration, educating and persuading faculty, and implementing OER in the classroom is no easy task. However, many institutions have found methods for creating successful initiatives to save students money and improve student outcomes. These initiatives do not happen overnight and require consistency and patience. Liaison librarians can assist faculty in locating great OER repositories, but it is ultimately the faculty member who is the subject expert. Stakeholders across campus who are resistant to change will have several reasons for not implementing or considering OER but that should not de-

ter librarians from using the responses above to gain some traction with hesitant faculty members or administrators. The key is to stay abreast of the latest OER news, updates, and events; update administration on student savings, both on campus and across the nation; stay relevant with faculty by sending them interesting OER related to their field of work; and seek funding to offer stipends that will provide faculty with an incentive to try it out. As one Open Textbook Network trainer put it, "remember that you are playing the long game." Change will not happen overnight, but continued advocacy for students and access to resources is well aligned with librarians' mission.

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Emotional Labor in Open Access Advocacy: A Librarian's Perspective

Elizabeth Beaver Batte

Nicholls State University
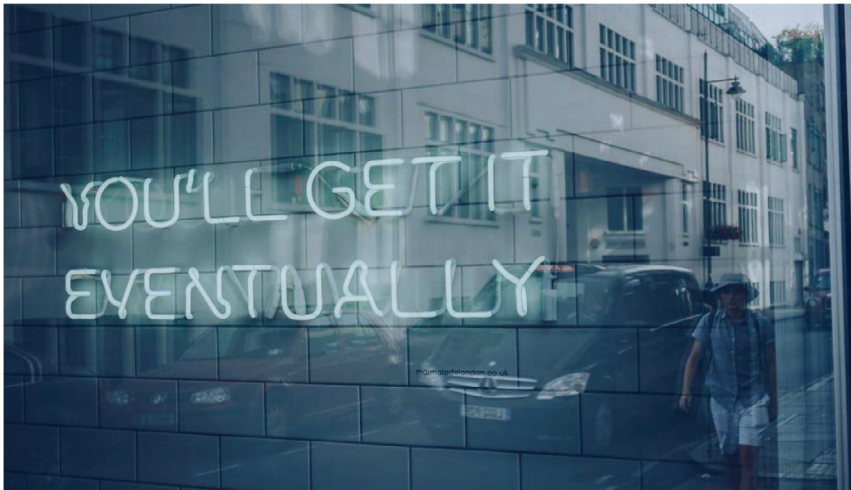
Abstract

Emotional labor has become a hot topic among academics and with good reason. Emotional labor can be invisible to supervisors but often leads to preventable burnout, depression, or anxiety. This article aims to identify what emotional labor looks like for OER advocates with a focus on librarians, the consequences of extensive emotional exertion, and solutions for the advocate and their supervisor on how to manage emotional labor productively.

Keywords: emotional labor, open access advocacy, working mom, work-life balance

Trabajo emocional en la defensa del acceso abierto: la perspectiva de una bibliotecaria

Resumen

El trabajo emocional se ha convertido en un tema candente entre los académicos y con buenas razones. El trabajo emocional puede ser invisible para los supervisores, pero a menudo conduce al ago-

tamiento evitable, la depresión o la ansiedad. Este artículo tiene como objetivo identificar cómo es el trabajo emocional para los defensores de REA con un enfoque en los bibliotecarios, las consecuencias del esfuerzo emocional extenso y una búsqueda de soluciones para el defensor y su supervisor sobre cómo manejar el trabajo emocional de manera productiva.

Palabras clave: trabajo emocional, defensa de acceso abierto, madre trabajadora, equilibrio trabajo-vida

开放存取倡导中的情绪劳动：一名图书馆员的看法

摘要

情绪劳动以充分的理由成为学术界的一个热门话题。情绪劳动可能被上司忽略，但却时常导致本可以预防的过度劳累、抑郁或焦虑。本文旨在通过对图书馆员的关注、大量情绪使用导致的后果、以及为倡导者及其上司就如何有效管理情绪劳动研究相关解决措施，以期识别情绪劳动对开放教育资源（OER）倡导者而言是什么。

关键词：情绪劳动，开放存取倡导，在职母亲，工作-生活平衡

Emotional Labor in Open Access Advocacy: A Librarian's Perspective

Before writing this paper, I knew that emotional labor was a part of the role of an open access advocate. However, I had not thought of how it affected me or of the impacts it can have on advocacy. Being an advocate means supporting a cause publicly. That support is tied to, at some level, an emotion, and therefore any labor done within that advocacy will have emotions woven in. My role as an open ac-

cess advocate began when I was hired as the open educational resources (OER) coordinator for a medium-sized regional university. My experience on a community-focused campus is that being student-oriented means emotional labor is part of the job. The amount of emotional labor can be overwhelming.

Like many of you reading this, I juggle more than OER initiatives on my campus. It is one of my two primary roles on campus as the electronic resources librarian and OER coordinator. These two roles, in my experience, work smoothly alongside one another. The

skillset of multitasking, research, and technology literacy needed for working with electronic resources is ideal for the job duties of working with openly licensed materials. Electronic resources can be a very time-consuming operation, and their problems always seem to pop up at the most inopportune times. Yet, it does not have the emotional toll that being a librarian in open access does. The thought processes behind open access advocacy stem from the need for textbook affordability for students and a culture of openly sharing information with everyone. Both sides have a lot of emotions tied to them.

Student loan debt can be crippling, and as someone who is still experiencing the weight of that debt, it is also draining. Librarians have taken up the fight for textbook affordability because it is the one thing they can attempt to actually change. Librarians do not dictate curriculum or textbook adoption, but they work closely with faculty who make those decisions. There is also the advantage of being set apart from the classroom; librarians will push for innovative ideas and shake up the usual routine. Fostering relationships with faculty allows for honest conversations about alternatives to traditional textbooks. What is not often discussed is the emotional labor involved in these conversations. Faculty with an understandable motivation can feel emotionally attached to a specific text, albeit occasionally a very expensive textbook. The reasons behind loyalty to traditional textbooks are not always clear, but establishing relationships with faculty can bring us a step closer to finding out.

Anyone who has worked with students of any age can easily give an anecdote of emotional labor. For faculty, librarians, staff, and administrators, the emotional tie to students is a part of the job. Not every student comes to a research consultation ill prepared the day before the deadline, but it is not a rare occurrence for academic librarians. It is emotional labor to remain calm, work them through their roadblocks, and manage their stress into productivity.

Students approach OER librarians with a similar level of stress regarding textbook costs. For some first-generation students who come from homes where the college experience is foreign, they come to campus with unrealistic expectations of textbook prices. The weight of this financial burden leads students to the library to seek textbooks or alternatives, such as older editions or other textbooks on the same topic. The library I work at had a long-standing policy against buying textbooks. Textbooks in the catalog were donated by faculty or students at the end of the semester. Now it is part of my role as OER coordinator to use library funds to purchase the digital versions of textbooks with unlimited user access so that it is "free" to students. We also now have a Reserves Shelf behind the Access Services and Circulation Desk, where students can check out a textbook, in-house, for a few hours. Without the push for OERs and affordable textbooks, these initiatives would not be present in the library today. This part of my job involves positive emotional labor. There is no feeling like being able to email a professor to let them know

the library has bought their adopted textbook so that current and future students will be able to access it for free. I always mention future students in my emails to faculty, hoping to encourage the longer adoption of a purchased title.

Defining Emotional Labor

To go beyond personal experience, I researched how others defined emotional labor. In the article "Toiling in the Field of Emotion," Fraad (2008), former President of the International Psychohistorical Association, defines it as "the expenditure of time, effort and energy utilizing brain and muscle to understand and fulfill emotional needs." As stated previously, emotional labor is invisible; Fraad (2008) broadens this by saying that often, the person performing the labor in unconscious of it. Fraad introduces a term coined by American psychohistorian deMause, "psychogenic pump," which describes why mothers are most prone to emotional labor. A psychogenic pump gives love and attention exceeding what traditionally the mother received or achieved. This applies to open access when advocates want students to have a better experience than they did. We want to improve lives for students so they do not have to experience hardships that we as advocates have experienced or have seen in other students who were weighed down by the financial burden of expensive textbooks.

Fraad also claims that emotional labor is hard to define because people refuse to acknowledge it. She compares emotional labor to a woman's domestic duties, which, as she points out, was ignored as real labor until the women's movement shined a spotlight on it. "Women's emotional labor in these jobs, like our work at home, is expected without being named" (Fraad 2008, 273). This is because emotional labor and physical labor are not separately validated and discussed, but most often lumped together as labor necessary for a specific line of work. Emotional labor has not only a bearing on women, but men are less likely to value or recognize the emotional labor they exert domestically or in the workplace. Fraad focuses the rest of her article primarily on the role that emotional labor plays in childhood and adolescent development. This emotional labor is important to those who work in higher education because "emotional labor needs also to be as systematically addressed as do other aspects of modern society if we are to prime the psychogenic pump and create independent-minded, compassionate, creative people" (Fraad 2008, 283).

Emotional labor has since become its own field of study in sociology. Wharton (2009), sociologist and Director of the College of Arts and Sciences at Washington State University Vancouver, discusses how Hochschild's *The Managed Heart*, published in 1983, sparked a renewed interest in emotional labor because it could provide a new vantage point when discussing emotions in the workplace. Hochschild notes that emotional labor is increasingly seen in service jobs because the worker is more often expected to manage their emotions. Therefore, this emo-

tional task is seen as an occupational requirement. She defines emotional labor as managing one's emotions to align with organizational policies (Wharton, 2009). Librarians provided these specifications in the *Guidelines for Behavioral Performance of Reference and Information Service Providers*. The Reference and User Services Association (RUSA) of ALA first published *Guidelines for Behavioral Performance* in 1996. Since then, the guidelines have been updated, and they have continued to set a standard for professionals providing research and information services. The guide is broken into five sections: visibility/approachability, interest, listening/inquiring, searching, and follow up (RUSA, 2013). As librarians who champion creating, adapting, or adopting openly licensed materials, these interpersonal skills are needed. Behavioral responses during reference interviews with students and faculty when discussing OER are crucial to moving towards their adoption.

When discussing the criteria for what type of job requires emotional management, Hochschild listed the following three: contact with the public (verbal or in person), work that involves creating emotional circumstances with a customer, and when the employer has the potential to control emotions shown by the employee(s) (Wharton, 2019). These easily apply to librarians who serve as OER advocates. Student debt is a public issue, and textbook affordability is a part of that conversation. When librarians become involved with the student debt conversation, it can easily be with someone outside of the class-

room who still has the power to make an impact on campus, such as alumni, legislators, and prospective students. Back on campus, the OER librarian's typical interactions are with faculty. We tie emotions to the personal attachment to curriculum, opinions of what "open" and "free" mean in the context of quality, and how this will affect the instructor's pedagogy and curriculum. The daily activities of a librarian are rarely the same and are often dictated by others' needs. This is no different for those working in OER. These interactions are full of emotional states that may be out of the librarian's control, but still within their responsibility to manage. A skill of successful librarianship is how a librarian treats their users. It may not be specifically listed in the library policy to go above and beyond in customer service, but we assume it. Librarian job postings ask for professionals with great interpersonal skills or client service experience. The institutional culture sets the general standard for departmental customer service, so experiences vary.

OER Advocacy on Campus

Diversity in culture also relates to how administration and faculty perceive OER. I am at a public, regional university that offers Bachelor's and Master's degree programs. At this university, there is no mandate for OER adoption. I attribute part of this to the faculty's academic freedom. The administration trusts faculty to adopt the best textbook for their curriculum. Textbook affordability and OER were a conversation on campus before I arrived in the fall of 2018, but there are still several fac-

ulty members who do not understand the vast selection available to them with openly licensed textbooks and ancillary materials. The tactic that university administration took was to create a Textbook Affordability Taskforce. I am chair of this taskforce, which comprises department heads and general education faculty. We were set with creating a three-year financial plan for textbook affordability that would be reported to the state. Working with the faculty members on the taskforce, we created a plan that set our campus goal to have each department's textbook prices decrease by 20%. Faculty set this goal and so now every department has a representative on this task force to champion their department to decrease costs by 20%. This cost-saving goal sparked an interest in OER with several faculty members. This is when I began to realize the emotional labor that would be involved in working with faculty while advocating for students' opportunities for fewer financial burdens.

Working with other OER supporters outside my university, there have been several conversations about the emotional labor involved. Being a part of OER initiatives outside my campus has led me to state-funded programs through our academic library consortium LOUIS where four groups over ten months created a Louisiana-focused OER repository. The OER in the repository were chosen because they aligned to the learning objectives of the core curriculum at most Louisiana universities or Louisiana Community and Technical Colleges System (LCTCS) career clusters.

More locally, I collaborate with another OER specialist who works in the library of a nearby community college. Their institutional culture is founded on financially incentivizing faculty to adopt openly licensed materials. The instructors' monetary payout is based on whether the OER being used in their course is an adaption/adoption or if it is an original creation. Obviously, original works are more highly rewarded financially. Community colleges were founded on being an affordable option to education, so I see larger impacts on their campuses. This is because the campus culture of affordability is already well developed. In the 2017 *Southern Regional Education Board (SREB) College Affordability: Promising State Policies and Practices* report, state-funded initiatives for community college enrollment was one of the main programs evaluated. Tennessee, Oregon, and Minnesota have created tuition-free programs for community college attendance. During the 2015-2016 state legislation sessions, there were at least ten other states being tracked for free community college legislation (Harvey and SREB, 2017).

Oregon has been doing a lot with its OER initiative with Open Oregon. In their 2019 Open Textbook Workshop Report, they boasted an estimated savings of $2,383,200 in student textbook costs since 2015. This workshop was only offered to Oregon's seventeen community colleges until 2017 when it was extended to their seven universities. For the OER Review Workshops held at fourteen Oregon institutions from 2017-2019, 240 faculty members attended. As part of the workshop, the

faculty had to write a review of an openly licensed book. These recent workshops led to $65,200 in student savings after forty-five new adoptions of open access textbooks (openoregon, 2019). Affordability is not a new conversation on community college campuses.

Soon, I expect more universities will take more notice of what community colleges are doing to advocate OER. Universities that have pushed initiatives for textbook affordability or open publishing curriculum content often choose these new roles to be spearheaded by librarians.

Librarianship Evolution and Emotional Labor

In recent years, added stress has caused everyday work to become emotional labor for librarians. One part of this stress is the rising requirement for technology-related skills. Librarians have always filled multiple roles in their jobs, but now with technology's role in education, institutions are looking for librarians who know course management software, the basics of coding and web layout, and instructional design (Lowe and Reno, 2018). Open access is one of these technology-focused additions. To be a successful OER coordinator for my campus, I have to understand CC licensing, at least a basic knowledge of how to work various open textbook repository sites, how to implement open courseware into our course management system, and how to format their created OER for easy use by their students. For faculty members, overhauling their pedagogy or curriculum from traditional to open can be overwhelm-

ing and stressful. As facilitators of open access, it is our role to help manage that stress for them and ease their transition into open education. Emotional labor is not always negative, but even when it is positive, it can be heavy. Again, building relationships with faculty can ease the weightiness of emotional labor.

Shuler and Morgan (2013) did a case study on academic librarians focused on their regular interactions with students and faculty to assess the emotional labor involved. As noted in their study, the librarians did not recognize the term "emotional labor," but once described, all of them agreed that it was a daily part of their job. The part of their study that stuck out to me was the described joy at feeling appreciated. When discussing emotional labor, it is important to note that the emotional states felt that labor can be joyous and exhausting. Their case study found that even at the end of a tiring reference interview, given the recognition of a job well done in assisting a student or faculty member lifted the emotional labor for librarians to a more positive spin (Shuler and Morgan, 2013).

Recognition for work done by a librarian, even in OER advocacy, does not mean they are seen as equals to traditional teaching faculty. For academic librarians, fluctuating decisions towards faculty or non-faculty status have become a stressor. ALA Past President Maureen Sullivan felt that the status of faculty was unnecessary for librarians. Those who disagreed with her felt it was vital to their job security. As noted by Lowe and Reno (2018), many librarians

already feel the pressure to constantly defend their status and to prove their value professionally. On my campus, I have interacted with several faculty members who did not know that my role as a librarian was classified as faculty, despite my service on the faculty senate and other faculty committees. Working with faculty on OER adoption or creation has opened the door for me to show faculty what librarians really do. Even in the academic arena, there are still several misconceptions about what librarians spend their days doing.

In discussing what librarians do all day, let us also talk about role overload. As mentioned previously, being the OER coordinator is not my only responsibility on campus. However, I will admit that I have seen a few universities and community colleges advertise for librarian positions that focus solely on open access and textbook affordability initiatives. Not my reality, but an option for other academic librarians. Lowe and Reno (2018) bring up role overload when discussing burnout in academic librarianship. Mastel and Innes (2013) define role overload as the continuous redefining of models and professional responsibilities of librarianship. Taking on campus OER initiatives is definitely part of redefining professional roles for an academic librarian. Librarians have to find a balance in the role overload, and supervisors have to be mindful of what role transformations they apply to their librarians. "All of the literature focused on burnout in academic librarians agrees that the nature of the job engenders burnout" (Lowe and Reno 2018, 75). However, Lowe and Reno also noted that literature on specific aspects of burnout among academic librarians was lacking. I advocate research in this area for a better understanding of emotional labor, stress triggers of librarianship, and prevention of burnout rather than dealing with the aftermath of it (Lowe and Reno 2018).

Managing Emotional Labor can Help Prevent Burnout

One strategy for coping with difficult emotional labor comes from training advice often given to flight attendants. Reframe the behavior, do not take it personally, and imagine the outside reasons this interaction could go poorly (Shuler and Morgan, 2013). Maybe that person just had a fight with someone close to them before this meeting or they are a parent with a child who does not sleep well through the night so they are working on little sleep and more coffee. The stress of getting a course sorted out in time before the semester begins is a big stressor for faculty, especially those who are new to campus. This empathetic method helps alleviate the situation and can help create the foundation for a successful collaboration with faculty in OER advocacy. Empathy is a commonality in several open access conversations I have been involved with or heard about in the OER community. Part of the reason faculty choose to transition to an open resource is being empathetic towards the burdens felt by their students.

Another tactic brought up by Matteson and Miller (2014) is for supervisors to train their employees to recognize emotional labor and em-

power them to regulate it. Part of this training involves helping faculty and staff members understand communication skills, including how to professionally communicate their feelings, and emotional intelligence, which involves understanding and managing personal emotions and others' emotional responses. Lastly, Matteson and Miller suggest managers go outside the traditional memo email and create a training that is interactive and more meaningful to the trainees. This could include re-enacting scenarios and using small discussion groups to problem-solve tough situations that require emotional labor (Matteson and Miller, 2014).

Emotion-regulation ability (ERA) is a term introduced by organizational psychologists who look at what causes exhaustion and fatigue at work. ERA is a part of emotional intelligence and, according to Zhao, Li, and Shields (2019), it plays a major role in preventing professional burnout. They found that professionals who tested high for ERA were less likely to experience job burnout and that ERA helps maintain a more positive attitude at work. Zhao, Li, and Shields conclude that supervisors should develop programs and targeted training to help their employees improve their ERA. Enhancing one's strategies and techniques for regulating emotions leads to fewer cases of burnout (Zhao, Li, and Shields, 2019).

Conclusion

Getting involved with open access allows me to be a part of a community that deals with the same emotional labor, job struggles, and work triumphs. The power of that community, outside your individual workplace, is a positive reinforcement for a job that constantly evolves. To librarians that work with OER, I would recommend being a part of the community through listservs or other online forums. It is great to have support from other librarians in the open access field, but it also gives you perspective from the faculty viewpoint. These forums can give great insight into why some faculty members may be hesitant to go open or concerns they have about using a CC license on their personal materials. Community support for OER advocacy is important, especially when you go through a rough patch and have experienced several "no" responses to adopting an open textbook from faculty. I have a sign on my door that has a quote from Ruth Bader Ginsburg that says, "Fight for the things that you care about, but do it in a way that will lead others to join you" (Vagianos, 2015). It is my constant reminder that I care about open access and that it is going to cause my daily routine to involve emotional labor, but also at the end of the day, that one faculty member who becomes an open access advocate because of my work with them will be worth it all.

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Bad (Feminist) Librarians: Theories and Strategies for OER Librarianship

Jessica Y. Dai, *West Virginia University*

Lindsay Inge Carpenter, *University of Maryland*
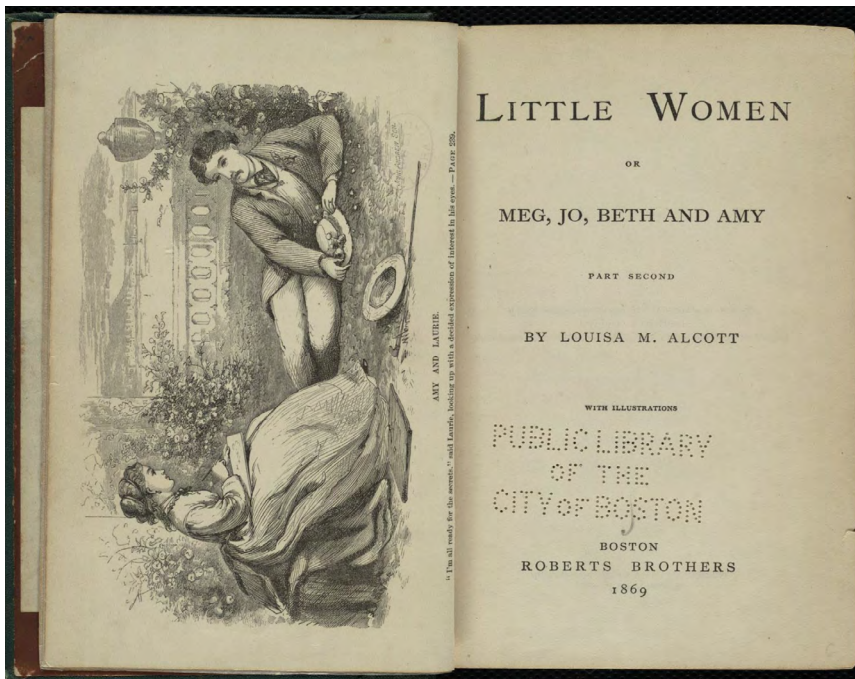
Abstract

As more academic libraries recognize the potential of open educational resources (OER) initiatives to impact students' ability to save money and transform pedagogical models to support student learning outcomes, these institutions may develop pilot programs to test the viability of open educational practices. However, if these institutions use a neoliberal mindset in which libraries are encouraged to "do more with less" or when large projects fall under "other duties as assigned," questions about the additional labor these librarians undertake remain unaddressed. For example, are position descriptions renegotiated when additional duties are assigned? How is OER work quantified and recognized? Like instructional librarians, OER librarians invest significant time and effort in work that is relational in practice. Relational labor is work that is contingent on building relationships with others and may be under-

valued, as the output is often intangible. As such, how is this neo-liberal climate reproducing feminized expectations for labor? To truly operate within open education, librarians need to practice the same transparency, accessibility, and agency as OER practitioners as we advocate for our resources. This article examines OER labor practices by exploring pedagogical models and using a critical and intersectional feminist lens to provide concrete ways for librarians doing OER work to advocate for themselves.

Keywords: open educational resources, critical theory, feminist theory, intersectional feminism, OER labor

Bibliotecarias y bibliotecarios malos (feministas): teorías y estrategias para la biblioteconomía de REA

Resumen

A medida que más bibliotecas académicas reconocen el potencial de las iniciativas REA para impactar la capacidad de los estudiantes de ahorrar dinero y transformar modelos pedagógicos para apoyar los resultados de aprendizaje de los estudiantes, estas instituciones pueden desarrollar programas piloto para evaluar la viabilidad de las prácticas educativas abiertas. Sin embargo, si estas instituciones utilizan una mentalidad neoliberal en la que se alienta a las bibliotecas a "hacer más con menos" o cuando los grandes proyectos se enmarcan en "otras tareas asignadas", las preguntas sobre el trabajo adicional que realizan estos bibliotecarios quedan sin respuesta. Por ejemplo, ¿se renegocian las descripciones de los puestos cuando se asignan deberes adicionales? ¿Cómo se cuantifica y reconoce el trabajo de REA? Al igual que los bibliotecarios de instrucción, los bibliotecarios de REA invierten un tiempo y un esfuerzo significativos en el trabajo que es relacional en la práctica. El trabajo relacional es un trabajo que depende de la construcción de relaciones con los demás y puede estar infravalorado ya que la producción a menudo es intangible. Como tal, ¿cómo está reproduciendo este clima neoliberal las expectativas feminizadas para el trabajo? Para operar verdaderamente dentro de la educación abierta, los trabajadores de la biblioteca necesitan practicar la misma transparencia, accesibilidad y agencia para los profesionales de REA cuando abogamos por nuestros recursos. Este artículo examinará las prácticas laborales de REA mediante la exploración de modelos pedagógicos y el uso de una lente feminista crítica e interseccional para propor-

cionar formas concretas para que los trabajadores de la biblioteca que realizan el trabajo de REA aboguen por ellos mismos.

Palabras clave: REA, teoría crítica, teoría feminista, feminismo interseccional, trabajo REA

不合格的（女性主义）图书馆员：OER 图书馆学的理论与策略

摘要

鉴于越来越多的学术图书馆认可OER倡议在影响学生节省资金和变革教学模式以支持学生学习成果方面的潜力，这些机构可能开发一系列试点计划，测试开放教育实践的可行性。然而，如果这些机构使用一种新自由主义式的思维模式，鼓励图书馆"用较少资源创造更多"或者当大型项目处于"其他指派的任务"条款之下时，那么有关图书馆员承担的额外劳动的疑问则依然未被解决。例如，当指派额外任务时是否重新协商过职位描述？OER工作如何进行量化，如何被认可？与教学图书馆员一样的是，OER图书馆员在工作中投入大量时间和精力，这在实践中是有关系的。关系劳动是一种取决于与他人建立关系的工作，其可能因为时常无形的劳动输出而被低估价值。因此，这种新自由主义式思想如何再次创造女性主义化的劳动期望？为在开放教育内完全开展工作，图书馆工作人员需像我们倡导各自的资源一样，为OER从业人员创造相同的透明度、可获取性和能力。本文将通过探究教学模式和透过一个批判性和交叉性女性主义视角检验OER劳动实践，以期为从事OER工作的图书馆员提供倡导自身的具体方法。

关键词：OER，批判理论，女权主义理论，交叉性女权主义，OER劳动

Like any emerging trends within a profession, librarians who support or lead open educational resources (OER) programs may find the path forward to be amorphous and dependent on unquantifiable variables, such as faculty interest or administrative support. Of particular importance are the relationships that librarians develop and cultivate with faculty and other stakeholders. OER librarianship does not exist in a vacuum and repli-

cates many of the service components of academic librarianship at large, including feminized labor that may be underacknowledged, underappreciated, and undercompensated. This paper analyzes librarians' OER labor by examining power structures using the frameworks of critical models and an intersectional lens in order to propose solutions to make OER labor more transparent, accountable, sustainable, and just.

We critique the ways that power dynamics inform library work by all types of library workers. We recognize the complicated debate regarding the Master of Library and Information Science (MLIS) degree or its equivalents as the requirement to be considered a credentialed librarian (Farkas 2018; Robertson 2018) or a library leader (Michalak, Rysavy, and Dawes 2019). Throughout this article, we use the term "librarian" to describe any library worker, regardless of their credentials. Relatedly, using an intersectional feminist lens centers the individuals doing the work rather than the degrees or institutions they represent. In that spirit, we intentionally use personal pronouns throughout this article and affirm our stance that librarianship cannot be neutral. We operate from the belief that neutrality supports existing systems of oppression (Ferretti 2018).

We acknowledge our power, privilege, and positionality, which enable us to attend rewarding professional development opportunities, which our institutions pay for on our behalf. Working at R1 institutions means that we are supported by tangible benefits, such as yearly professional development allotments, work flexibility, and access to expensive resources and services. One of us works at an R1 institution with a Library and Information Science (LIS) program, which provides the benefit of graduate student labor to support OER work; this labor is essential to the success of the institution and raises additional questions of power and privilege.

We met while participating in the inaugural Open Textbook Network's (OTN) Certificate for Librarianship program, an intensive certificate program with an online and in person component. OER librarianship is relatively new and LIS programs have not incorporated OER into their curriculums (Bolick, Bonn, and Cross, n.d.). Many OER librarians seek professional development opportunities outside of formal coursework by participating in listservs, webinars, and other free and openly accessible opportunities. A privileged few can participate in conferences, certificate programs, and other professional development opportunities. These opportunities are cost-prohibitive, particularly for those working in underfunded institutions; by excluding our colleagues, these opportunities reinforce the existing hierarchical system that is prevalent in higher education. Given this system, the conversation about open education may prioritize—and in turn be shaped by—the voices and values of those who work at institutions with more financial resources and the motivation to invest in open education.

During the in-person session of the OTN program, about thirty participants from across the United States met to develop action plans for their respective institutions. Many librarians in the room talked about how they were responsible for reference, instruction, collection development, cataloging, and more on top of their OER duties. This reality might be especially prevalent at smaller institutions where the adage of wearing "many hats" is normalized. For some librarians, OER is the focus of their assignment documents and they are evaluated accordingly. For other librarians, OER is something added to their existing job duties without much room for negotiation. This second scenario is emblematic of the ubiquity of "doing more with less" in the neoliberal college or university. In the neoliberal context, public colleges and universities operate using private business models (Slaughter and Rhodes 2000) where educational decision-making is influenced by factors of profits and costs. Fister (2015) posits that effects of this neoliberal mindset include the reality that students face rising tuition costs and faculty find that tenure track lines are increasingly adjunctified. For academic librarians, the response may involve major decreases in materials and operating budgets remedied by big deal cancelations (SPARC n.d.) or hiring freezes or cuts (Guarria 2011). This piece continues the informal conversations that we began during the OTN program, asking questions and raising concerns about whether academic libraries are adequately recognizing and compensating OER librarians' labor.

Foundations of Open Educational Resources and Open Education

To better understand how and why librarians support and run OER programs, we need to examine the larger background and context of open education. The OER movement began in the 1990s with the creation of open repositories and the development of concepts and language to describe the openness of learning materials, with various converging open movements in the software and educational sectors (Bliss and Smith 2017; Wiley 2006). Since OER describe learning objects that can be collected, described, organized, and disseminated, librarians' training to collect and promote collections of books, periodicals, media, and other materials for the use of learning makes them particularly well suited to work with OER. The American Library Association's (2019) core values of access, democracy, education and lifelong learning, and social responsibility align with the intent of the open movement to leverage open licenses to remove barriers to access and promote use for the public good. Since most librarians do not have direct control over textbook adoptions, they often position themselves as a resource to connect faculty to concepts and resources related to open education.

Education is a universal human right, affirmed by Article 26 of the United Nations' Declaration of Human Rights and Articles 13 and 14 of the International Covenant on Economic,

Social, and Cultural Rights. Education as a universal human right in practice is complex and idealistic, as systemic issues of social and financial inequality are significant barriers for students. Access to higher education in the US is shaped by the fact that the national student debt in 2019 totals $1.5 trillion dollars (Friedman 2019), state-sponsored funding of higher education continues to decline (Chronicle of Higher Education 2014), and the neoliberalism of higher education prioritizes departments that are profitable over those that are not (Slaughter and Rhoades 2000). Some educators find promise in open education's potential as a mechanism to reform the ways that students access education (Jhangiani and Biswa-Diener 2017), with the tacit understanding that an overhaul of higher education would be necessary to make real systemic change and that open education and OER are not quick fixes.

Deconstructing Power: Theory and Praxis

We see significant parallels between the work of OER librarians and instructional librarians. Arellano Douglas and Gadsby's (2017) exploratory research found that the work of instructional coordinators is relational in practice and centers student success. Similarly, OER projects require librarians to build relationships with faculty, administrators, student government, bookstore managers, registrars, public relations departments, and university presses due to the collaborative nature of OER work (Goodsett, Loomis, and Miles 2016). Relationship-building through outreach campaigns may include emailing, networking at campus events, meeting with stakeholders, conducting workshops, running programs, and more. These similarities suggest that OER librarians can benefit from the literature by instructional librarians and their pedagogical practices in order to deconstruct power in OER spaces. Specifically, this section reviews the potential of critical, feminist, and open pedagogies and critical librarianship to guide OER practices.

Critical pedagogy, theorized by Paulo Freire in the 1970s, has influenced generations of critical educators and theorists. Critical pedagogy positions the praxis of teaching as a mechanism to break down systems of oppression, giving agency to those whose voices are not traditionally valued in the academy. Working against the long-established concept of banking whereby students are meant to store—or bank—and regurgitate concepts, educators who practice critical pedagogy believe that students can co-create knowledge by reflecting and contributing their lived experiences and perspectives. For example, in the LIS curriculum, critical educators might push back against the idea that libraries are neutral spaces, encouraging students to examine the ways that institutions may uphold whiteness through its history of segregation and assimilation (Collins 2018; de jesus 2014; Schlesselman-Tarango 2016).

One of the hallmarks of critical pedagogy is the challenge it presents to

traditional ideas of authority. Academic librarians use the frame "Authority is Constructed and Contextual," developed by the Association of College and Research Libraries (2016) in the *Framework for Information Literacy for Higher Education*, to teach students how to evaluate information. As many librarians have moved away from bibliographic instruction toward information literacy instruction, the adoption of critical theory into library instruction reflects a shift whereby librarians reimagine instruction to be dynamic, reflective, and engaging rather than methods-based (Elmborg 2016; Tewell 2015). Instruction librarians have long used self-reflection, metacognition, and inquiry—skills we teach our students—to reimagine ways we can leverage our power and positions to become effective change agents (Elmborg 2006) who center social justice in the classroom (Eisenhower and Smith 2009). For example, instead of demonstrating how to use a library database by focusing on the use of limiters, subject headings, and truncation as strategies, critical librarians might facilitate a conversation about the cost of databases to encourage students to think about whose voices are highlighted and whose voices are left out in the peer review process. Recently, the ACRL Immersion Program overhauled its curriculum to incorporate critical reflective practice, noting that the program "builds upon critical theory and praxis in education, libraries, and society in order to challenge inequities and promote social justice" (Association of College and Research Libraries 2019).

Critical librarianship—popularly known as #critlib because of the prominence of the use of the hashtag #critlib during chats on Twitter—has adopted elements of critical theory to incorporate social justice into the general practice of librarianship (critlib n.d.). #critlib offers people of varying experiences and practice the opportunity to learn about and contribute to the conversation. Past #critlib chats have focused on medical librarianship, subject heading appraisals, organizational culture, bias in web searching, vendor relations, and patron privacy, indicating the breadth of areas into which librarians can incorporate critical practice.

Feminist and open pedagogies build on Freire's work to address the changing nature and needs of education and to further engage students in the learning process. Feminist pedagogy posits that the learning environment can be a democratic and liberatory space (Accardi 2013; Shrewsbery 1987). Feminist educators, like critical educators, deconstruct traditional ideas of authority. For example, feminist educators might invite students to call them by their first name, rather than use titles such as Ms. or Dr., which carry a sense of perceived power based on traditional values. This mode of thinking shifts from how one might declare their authority to how one might first build trust in order to demonstrate their knowledge. Feminist educators are more likely to move away from lectures and lecture-style seating arrangements, favoring discussion-based and participatory models. At the core of feminist pedagogy is the idea that everyone in

the classroom is equal and welcome to share knowledge.

As an emerging pedagogical model, Jhangiani and DeRosa (n.d.) suggest that open pedagogy resists definition, proposing that one should first ideate what open pedagogy could be before agreeing upon a definition. This metacognitive process highlights open pedagogy's potential. Ultimately, Jhangiani and DeRosa (n.d.) define open pedagogy as "a site of praxis, a place where theories about learning, teaching, technology, and social justice enter into a conversation with each other and inform the development of educational practices and structure." Jhangiani and DeRosa (2017) also define open pedagogy as "a participatory model, conceptualized as an interaction between a learner and their learning materials."

Critical, feminist, and open pedagogies are distinct pedagogical frameworks, yet their intersections offer tools and strategies for recognizing, understanding, and deconstructing power in academic librarianship. Just as these frameworks have been used by instruction librarians to examine power and authority in the classroom setting and within the profession, OER librarians can employ the tenets of critical, feminist, and open pedagogies to interrogate how power operates not just in scholarly publication models, but in the labor of OER as well. These frameworks remind us that equity is not inherent in our work or in our profession; OER librarians must be intentional about building equity, individual agency, and social justice into our work.

Feminized, but not Feminist: Feminized Labor and Intersectional Feminism in LIS

This section is inspired by Arellano Douglas's (2019) statement: "As a feminized profession, we don't embody ... feminist practices." Feminized professions are those that are dominated, in terms of numbers, by women. This numerical majority does not guarantee that women are proportionately represented in leadership and other prestigious positions within the profession. Welde and Stepnick (2014) note how data from Integrated Postsecondary Education Data System (IPEDS) show that faculty who are "women are outnumbered by men at *all* ranks at *all* four-year institution types ... yet women outnumber men at *all* two-year institution type .... That is, male faculty members outnumber women except at the least prestigious institutions, with the fewest resources and lowest salaries" (7). Unsurprisingly, academic libraries mirror this dynamic, as women make up the majority of the profession, yet men disproportionately comprise the ranks of library leadership (Beck 1991; O'Brien 1983), despite representing only 19% of the profession (Rosa and Henke 2017).

Feminized labor is work that is coded as traditionally feminine, namely, labor that is affective, emotional, and relational. Feminized labor is frequently invisible and undervalued in the workplace, particularly when it is performed by women (Arellano Douglas and Gadsby 2017). LIS scholars have

analyzed how feminized labor and its devaluation is manifested in the academic library. Sloniowski (2016) uses the Marxist construct of immaterial labor to distinguish between the ways that institutions categorize and value affective (emotional) labor as productive and unproductive. Emmelhainz, Pappas, and Seale (2017) analyze the Reference and User Services Association's *Guidelines for Behavioral Performance of Reference and Information Service Providers* to critique the ways that reference librarians are encouraged to do emotional labor in order to manage how patrons *feel* (emphasis added) rather than on the outcomes of the reference transaction, e.g., whether or not the patron learned how to find relevant library resources. Arellano Douglas and Gadsby (2019) use relational-cultural theory, which was developed by feminist psychologists Jean Baker Miller, Judith V. Jordan, Janet Surrey, and Irene Stiver, to analyze the unique power dynamics that instructional coordinators face as those who coordinate, but do not necessarily supervise instruction librarians. As with other forms of feminized labor, this type of relational work is undervalued and not always accompanied by real authority to enforce policies.

This paper employs an intersectional feminist framework to analyze OER labor. Intersectionality is a concept in legal theory developed by Kimberlé Crenshaw (1989) to describe the ways overlapping aspects of one's identity—such as race, class, gender, or ability—impact one's lived experiences. For example, Crenshaw's theory details examples of how Black women, in cases

of rape and intimate partner violence, face both racism and sexism in reporting whereas Black men and white women are viewed only through the lens of their race and gender, respectively. Intersectionality has entered the mainstream discourse through popular feminism (Coaston 2019; Coleman 2019).

While first- and second-wave feminism historically centered the gender disparity between white men and white women through the mainstream discourse of suffrage and women's equality, intersectional feminism is intentionally inclusive of how one's gender works in tandem with one's class, race, ethnic background, ability, national origin, or creed, for example. In recent years, LIS scholars have used the frameworks of feminism (Accardi 2013, 2017) and intersectionality (Ettarh 2014; Hathcock 2018; Lew and Yousefi 2017; Pho and Chou 2018; Thomas, Trucks, and Kouns 2019) to identify, critique, and counter the ways that librarianship has historically been feminized and exclusionary to those who are not white, cisgender, male, or able-bodied. These intersectional critiques demonstrate how the profession espouses values of diversity and inclusion and yet does not reflect these values in practice. In order to address the gap between stated values and actual practice, Espinal (2001), DiAngelo (2018), and Galvan (2015) suggest that individuals need to acknowledge the centering of whiteness in librarianship. Collins (2016) uses critical discourse analysis to illustrate the ways that "The LIS field does not have a diversity problem—it has a white supremacy problem, a heteropatriachy

problem, an ableism problem, an anti-Semitism and Islamophobia problem, a Western-centrism problem, a classism problem. LIS has an oppression problem" (44). Librarianship has historically employed white women, traced to the rapid growth of the profession between 1876 and 1905, a time when women's labor was inexpensive and positions in the library were plentiful (Garrison 1972). The *2017 ALA Demographic Survey* (Rosa and Henke 2017) shows that the American Library Association's (ALA) members are 81% women and 86.7% white. Schlesselman-Tarango (2016) uses the archetype of "Lady Bountiful" to critique the ways that the "patriarchy, white supremacy, and notions of ideal femininity have worked to craft a subject fit to perform the work of colonialism in its variegated and feminized forms" (667). Ettarh's (2018) concept of vocational awe describes the ways that library rhetoric conceives of the library as a sacred space and librarianship as a higher calling. Ettarh argues that this mindset leads to job creep and burnout, as it encourages librarians to do more with less, overwork themselves for an imagined greater good, and excuse problematic policies and behaviors that perpetuate the violence of white supremacy. While the scholars cited here and other like-minded practitioners endeavor to bring an intersectional feminist lens to librarianship, it is clear that this approach is not ubiquitous in the profession and that the field continues to perpetuate patriarchal white supremacist systems. Therefore, we argue that although librarianship is feminized, it is not feminist.

Why does this matter? Because OER librarianship, like instruction librarianship, is heavily predicated on relational work; relationship building and fostering community are essential to OER work. Yet this type of affective, relational labor is coded as feminine and is therefore undervalued. When labor is undervalued, there is a high potential for it to be undercompensated and under-supported. Additionally, knowing that librarianship is not inherently feminist and instead upholds systems of inequity and oppression, we can assume that OER librarians with minoritized identities will face additional challenges in receiving adequate compensation and administrative support. While we recognize that major changes are required to undo these unjust systems, we find hope and encouragement in the liberatory promise of critical and intersectional feminist theory. In the next section, we examine how OER librarians can apply this theory to our practice to create a more just working environment.

In Context

This section seeks to apply the critical and intersectional feminist frameworks outlined above to the context of day-to-day work for OER librarians. Although the philosophy of open education aligns with critical and intersectional feminist values, these values are not always reflected in the open community, nor are they easy to incorporate into practice. Currently, peer-reviewed studies that analyze job descriptions or contractual statuses

of OER librarian positions are absent from the literature. Informal conversations among practitioners suggest that aspects of OER labor—particularly those aspects that are relational or feminized—may go undervalued, unrecognized, or undercompensated. We interpret this absence of research into OER labor practices as a reflection of the relative newness of OER librarian positions. More research is needed in this area. At the OTN Certificate program, our colleagues expressed concerns about managing added OER responsibilities, ensuring the sustainability of OER initiatives when they are funded and staffed through soft money rather than permanent funding sources, and balancing the competing—and frequently changing—needs of various stakeholders. We are encouraged by the emergence of spaces for OER librarians to share concerns, collaborate, and create solutions. For instance, the Rebus Community and OTN's Office Hours recently hosted a two-part webinar series focusing on "The Invisible Labour of OER" and "Strategies for Dealing with Invisible Labour." This series formalized a space for frank conversations and featured the stories and perspectives of OER practitioners. We hope that this paper contributes to these ongoing discussions about the labor of OER by encouraging practitioners and library administrators to have these conversations and incorporate equitable and inclusive practices into our work.

Based on the literature, our personal work experiences, and conversations with our peers, we propose three strategies for self-advocacy and mutual support for OER librarians to counter the replication of oppressive practices in OER labor. These strategies include asking the right questions, documenting labor, and building community support. These strategies employ an intersectional feminist lens that centers individual agency, reflection, and cooperation to support OER practitioners by infusing critical theory into open educational practices. In proposing these strategies, we focus on actions that are within the control of individual practitioners rather than reliant on external stakeholders. We recognize that substantive change requires the active support of administrators to enact change at a systemic level rather than the individual level, but this is not always feasible. Therefore, we offer these strategies as small yet powerful tactics for individuals who are interested in improving their working conditions. These strategies may not be appropriate or possible for everyone but are suggestions for further exploration and discussion.

Asking the Right Questions

Whether beginning a job at a new institution or negotiating the addition of OER duties to a current position, it is important for practitioners to communicate frankly with supervisors about reciprocal expectations. By asking these questions early in the process, librarians can clarify their role and their institution's ability to support its stated expectations. Too often, librarians—especially those who are early career or first-generation academics—might not realize that they can and should advocate for themselves. This reluctance

may be due to a variety of factors such as imposter syndrome or the desire to fit into the existing organizational culture. Initiating these conversations with supervisors early on establishes a precedent for open and honest conversations. Some librarians might not have a healthy working relationship with their supervisor, which adds a layer of discomfort to this discussion. Those in this situation will find that it is even more important to have these conversations, even if the supervisee has to initiate or feels the need to request a mediator. During this meeting, it is imperative to take detailed notes and follow up with an email to summarize and confirm the mutually agreed upon action items. The email serves as a record in case there are future disagreements or confusion. While it is best to have these conversations at the start of a new position or project, it is never too late to schedule a meeting to revisit expectations. Consider initiating this conversation by stating: "Now that I've been working on OER for X amount of time, I want to revisit our expectations and goals to plan my work going forward." Below, we offer three questions to ask supervisors.

How does OER align with institutional priorities?

Aligning OER work with institutional priorities helps practitioners and supervisors negotiate and manage expectations. Use institution- and library-wide strategic plans, mission and vision statements, and conversations with stakeholders to identify priorities and key collaborators in order to develop an action plan or roadmap. As your OER program develops, you might find that institutional priorities shift with changes in leadership, goals, budgets, and personnel. Scheduling regular check-ins with stakeholders and collaborators allows you to keep abreast of such changes and adjust your work accordingly. This in turn enables you to take a proactive, rather than reactive, approach to planning and programming.

What percentage of my time will be spent on OER?

Frankly, there are only so many hours per week that we are compensated for our work. It is essential to make the commitment to not work beyond those hours without additional compensation. Of course, this is easier said than done, especially when there are pressures to meet a deadline or prioritize projects that have similar timelines. Clarifying the percentage of time you are expected to dedicate to OER work helps build in accountability for your workload and advocate for additional compensation, work flexibility (such as flex schedules or remote work), or fewer responsibilities. For librarians with OER as their sole area of focus, the delineation of time may be straightforward. For librarians adding OER duties to a list of other responsibilities, such as serving as a subject specialist or instruction librarian, clarify which responsibilities should take precedence with your supervisor. Establishing firm boundaries not only ensures that you are fairly compensated and working a sustainable schedule, but it also provides a model for your colleagues, empowering them to say no to uncompensated work. It is

especially important for supervisors to model these boundaries and expectations for those they supervise.

What resources will I have available to support me in this work?

In spite of calls to do more with less in the face of seemingly endless funding crises, the fact remains that adequate resources are required to achieve institutional goals. Solutions such as working additional hours without compensation may be normalized or unofficially expected but are not healthy, fair, or reasonable. By presenting administrators with documentation that directly links the institutions' desired outcomes with the necessary resources to support those outcomes, OER librarians can strengthen the case for adequate resources or revised institutional goals. Such documentation should address needs for funds, human resources, and time, which are three of the most significant resources to secure in order to develop a robust and sustainable OER program.

A program budget might include funds for grant programs, workshop incentives, or participation in open education networks such as SPARC or OTN. Budgets can also include a modest allocation of funds for supporting relationship building in the form of treating faculty and other campus stakeholders to coffee to discuss OER. While big budget expenditures like institutional memberships are clearly the responsibility of the institution, librarians sometimes face pressure to pay for smaller expenses out of pocket, especially if the need for such funds is not considered in the first place. This is not feasible for many OER librarians, nor should it be expected.

For OER librarians taking on additional responsibilities such as supervision, the budget should also include increasing your salary proportionately and making provisions to fund student worker or staff pay and professional development. OER is not yet a standard component of LIS curricula; therefore, librarians must engage in continuing education opportunities. Many professional development opportunities require substantial fees and all require significant time commitments that may extend beyond the typical workweek. If a particular professional development opportunity is necessary in order to meet the demands of a position, the institution should fund that experience and provide flexible work support. If funding for professional development is not a priority for administrators, be prepared to explain how abstaining from participation negatively impacts the growth of the OER program.

OER work is collaborative and cannot be the purview of a single individual. Coordinating work across departments can be difficult and requires supervisors' support to get buy-in from colleagues whose primary duties do not include OER. Colleagues can support OER initiatives in the form of disseminating notices of workshop opportunities and information on OER collections to academic departments, co-facilitating workshops, connecting OER librarians with interested faculty members, and providing technical

support for digital materials. Even in a collegial work environment, it is helpful to formalize these partnerships. This might take the form of a meeting with supervisors and the heads of other departments to codify how OER initiatives fit into the library's and respective departments' strategic goals. In these situations, it's important to emphasize how your work can support their strategic goals as well. Partnerships with units outside of the library can be managed through a memorandum of understanding and regular check-ins to revise or reaffirm the terms of the agreement.

OER programs take time to develop and the process can be measured in years rather than semesters, so it is important for supervisors and OER librarians to have reasonable expectations of what can be achieved in a given timeframe. This is especially true for OER librarians in contingent positions, as it is unrealistic for a supervisor to expect contingent employees to develop multi-year projects with long-term impact, especially if the terms of their employment are uncertain. It is not sustainable to rely on contingent labor. In the same vein, it is not reasonable to expect OER librarians to engage in immersive professional development or scholarship while maintaining normal working schedules. Supervisors should work with OER librarians to discuss options for accommodating professional development and scholarship opportunities, particularly for librarians whose position description includes a percentage of time dedicated to scholarship. Solutions may include flexible scheduling, telework days, and research

days. Request support for periods when you will be out of the office for travel or other professional obligations. Supervisors and colleagues can provide additional support by agreeing to take over certain duties, such as temporarily covering reference desk shifts, negotiating deadlines that accommodate your schedule, and respecting your out of office message. Being upfront about your workload and vigilant about protecting your time can help establish boundaries, avoid job creep, and resist vocational awe.

Documenting Labor

Annual reviews, assessment tools, and portfolios are some of the institutionally supported mechanisms for tracking, evaluating, and rewarding workplace performance. With a neoliberal mindset, these tools may place a higher value on outputs, while obscuring or omitting process-driven work. This is especially problematic for OER librarians, considering the relatively high proportion of relational practice that enables OER work. Sometimes, these procedures can feel like requirements to document for the sake of documenting, which take time from actually doing the work.

Annual reviews or assessments can be important and useful tools. Librarians should leverage and build on existing documentation requirements and procedures to reflect on our work, honor our labor, and increase transparency. In approaching documentation with a feminist lens, we hold ourselves mutually accountable to stakeholders and our community while supporting our professional growth. Reflective

documentation strategies can be used to align our time with our values and to illustrate discrepancies between expectations and realities, which in turn can be used to self-advocate for changes in workload. In keeping with the principles of OER, which emphasize transparency and shared resources, OER librarians should consider converting internal documentation to be openly available to the larger community. Not only would this allow scholars to engage in textual analysis of trends in OER position descriptions and workloads, but it would also offer concrete tools for our colleagues to leverage in their own work.

Position descriptions

OER librarians and supervisors should regularly update position descriptions to reflect actual responsibilities. Because OER librarian positions are relatively new, it is likely that your initial position description does not capture the nuances of OER work. Annual reviews are an excellent time to revisit position descriptions, particularly when there have been significant changes to your workload or to the scale of your OER program. Ensure that the position description accurately reflects the percentage of time you dedicate to OER, revising the official percentage of time dedicated to other responsibilities as necessary. In updating your position description, intentionally include forms of invisible labor, such as relationship building, that is essential to OER work, yet traditionally undervalued in annual reporting. By incorporating these duties into the position description, it is

easier to make the case that time dedicated to invisible labor is well spent.

Since OER librarianship is relatively new, most institutions will not have many internal examples to use for developing OER position descriptions. External examples are also difficult to find, as position descriptions are attached to job postings, which often disappear once the position is filled. While informal exchanges occur among OER librarians, this type of information sharing privileges those who have access to such a social network, neglecting those who do not possess the same social capital. We pose this question to our colleagues: how might OER librarians make our positions and our labor more transparent? Where can we share materials so that they are accessible to all of our colleagues? As we are unaware of such resources, we hope that more librarians prioritize openly sharing this type of information, so that the community is better equipped to assess OER librarianship labor practices.

Workplan

Workplans are a method of goal setting for the academic year, aligning job responsibilities with specific action items. They can also be used to reflect on the past year and reassess future objectives. While some workplans follow a formal template as required of annual review procedures, this practice can also be used for informal individual goal setting and reflection. To present one approach to workplans, we offer an example from one of the authors' own documents (Figure 1). At the top of the table is an item from our position

description. In the table, we list specific action items that we plan to take to fulfill that area of responsibility. At the beginning of the year, the first column of the table offers a space to set a projected timeline or completion date. At the end of the year or upon completion of the task, this column can be updated with the actual timeline or an indi-cation that the task is ongoing. This is particularly useful for OER initiatives in the early stages, as it can provide data on the actual amount of time required to perform a task and highlight factors that may alter the anticipated timeline. The final column is used to record the impact of the action item.

|Provides leadership in the area of Open Educational Resources

Date and Status (Complete, Incomplete, Ongoing)	Action item	Impact
Spring 2019--Fall 2019 *Complete*	Complete Open Textbook Network Certificate in OER Librarianship	Participated in 6-week online course and 3-day intensive in-person training program. Developed an OER Action Plan for the University Libraries, including a SWOT Analysis, Communications Plan, Budget Proposal, and SMART Goals and Assessment Plan [link to OER Action Plan]
Spring 2019--Fall 2019 *Ongoing*	Chair Libraries OER group	Coordinated beginning and end-of-semester check-in meetings [link to minutes] Presented OER Action Plan for committee feedback Incorporated feedback and presented to supervisor and associate dean
Spring 2019 *Complete*	Meet with student leaders to discuss views on textbook affordability	Met with SGA president on X date [link to minutes] Met with student advocates on Y date [link to minutes]
Fall 2019 *Complete*	Distribute Faculty OER Survey	Developed, distributed, and assessed survey on faculty use of OER [link to results] Partnered with teaching and learning center, learning commons, and subject specialists to distribute survey X% response rate Used survey data to determine action items for 2019-2020 OER programming

Figure 1. Sample Workplan

To record impact, use all types of evidence at your disposal, documenting both qualitative and quantitative data. Qualitative data might include links to materials you have developed and program descriptions, thank you notes from students and faculty, and narrative descriptions of partnerships. Quantitative data might include numbers of workshops offered, numbers of

workshop attendees, and time spent on preparing for workshops and events.

Workplans should not just include the big programs or initiatives, but should highlight the day-to-day tasks required to maintain the program. Quotidian tasks, such as meeting with faculty members and students, providing one-on-one consultations to colleagues, responding to outside inquiries about the OER program, and corresponding with campus technology departments, are vital. To reflect the importance of these tasks and to honor your time and labor, record how much time you invest in these activities and their impact on the overall success of OER initiatives.

Journaling

Reflective journaling is a central practice of feminist teaching (Accardi 2013). This practice can also benefit OER librarians, especially as a way to develop and refine processes. OER librarians might journal after meeting with faculty, student, or other OER stakeholders to capture thoughts on the conversations. Journaling after a workshop or program can help you reflect on what went well and what you might change in the future. Journaling does not have to be tied to a specific event or interaction; it can also be used to record points when you are feeling particularly inspired or burned out. At the time, it may be hard to pinpoint what part of your work or life is contributing to these feelings. With consistent journaling, you can look back at previous entries to identify causes and patterns. Is your work tied to the rhythm of the

academic semester? In that case, you might look back and realize that your most stressful times correspond to midterms, finals, and other high traffic points of the semester. If your work is governed by external deadlines like grant application deadlines or production schedules, you may begin to recognize a pattern linked to those times of the year. This information can help you plan for stress points, but it can also remind you when you need to be more intentional about self-care. We do this work because it is important to us, but it does not need to consume us. Journaling can help us reflect on ways to better care for ourselves.

In addition to free-form journaling, time diaries offer another method for tracking and reflecting on how much time we spend on given tasks over the course of a day or week (O'Meara et al. 2017). Time diaries work best when used consistently to capture each activity during a set period. Recording activities for even a week can have surprising results; you might find that you spend far more time corresponding with faculty over email than you previously realized or that your "writing day" has turned into a "writing hour" due to competing priorities. After assessing the results of your time diary, review whether your stated priorities are reflected in your practice; if not, revisit what needs to change to ensure that your practice aligns with your goals and values. Time diaries can be used to inform the tasks and time allotted to them that you include in your workplan. This in turn can be used to argue for changes to your position description as neces-

sary or to advocate for assistance in the form of additional team members.

Building Community

As OER librarians are often the sole person or one of a small number of individuals working on OER initiatives at their institutions, it is essential to make connections with individuals outside the library to learn from other perspectives, experiences, and ideas. This section highlights different approaches to informally and formally build connections with other OER advocates. Participation in listservs, social media, and communities of practice offer low-stakes, informal opportunities to build community. Formal community building might include participation in official organizations or embarking on research and publication projects with colleagues.

Community building begins at our own institutions. Strong OER initiatives require the participation of units outside of the library. Other units might have better access to stakeholders, more power in decision-making at an institutional level, access to additional resources or funds, or simply different perspectives on furthering OER initiatives. These partners may include academic departments, student organizations, units that support faculty development, the Provost's office, the bookstore, or student affairs units. These relationships not only support the success of OER initiatives, but also provide allies with whom librarians can discuss theoretical and practical challenges of implementing open education.

Although most listservs are associated with established organizations, participation in listservs is often done informally as the format does not require much upfront commitment and allows members to jump in and out of conversations as appropriate. Fortunately, most listservs, such as the SPARC Lib-OER (https://sparcopen.org/our-work/sparc-library-oer-forum/) and the Community College Consortium for OER (https://www.cccoer.org/), are freely available to join and to share ideas and resources. Some listservs are supported through institutional membership subscriptions and are not open to everyone. OER librarians might consider joining OER-adjacent listservs as well, such as those that discuss scholarly communication, open access, and instruction, as conversations in those spaces can be relevant to the theory and practice of open education.

Social media, especially Twitter, can be a useful avenue to connect with others from outside your institution. Many people who work in the open community use Twitter to share resources, blog posts, news, and nascent thoughts. Whereas moderated listservs may require review of messages before posting, Twitter allows users to quickly and easily interact, offering a more convenient and real-time venue for conversation. Users do not need to create a Twitter account in order to view public Twitter accounts. By creating an account, users can follow individuals or hashtags such as #OER, #OpenTextbooks, #OpenEducation, and #OpenEducation. Creating an account also allows users to directly engage in con-

versations with other OER practitioners and scholars.

Communities of Practice (CoP) represent an intentional form of community building that requires the active participation and commitment of its members (Lave and Wenger 1991). CoP can be formal or informal, virtual or in-person. Wenger (2015) identifies three components of a CoP: a shared domain or area of interest; a community in which members "engage in joint activities and discussions, help each other, and share information" (p. 2); and a shared practice, defined as a "shared repertoire of resources: experiences, stories, tools, [and] ways of addressing recurring problems." Building a CoP can be as simple as identifying OER librarians with similar interests or positions and coordinating regular conversations to discuss this shared interest. With tools such as video chat software, CoP need not be bound by geographic location and can instead include members from across a wide range of regions and institutions.

Participation in formally recognized communities may occur at the individual or institutional level. Individual membership in state, regional, and national professional organizations provides the opportunity to build relationships beyond a single institution. Participation in state and regional organizations presents an opportunity to advocate for change at the local level. Although these professional organizations are not related solely to OER, smaller interest groups present an opportunity to connect with librarians

doing similar work. The workshops, webinars, and conferences hosted by these organizations offer valuable professional development. As noted above, librarians should not be expected to pay out of pocket and should instead advocate funding these memberships and professional development opportunities through administrative funds or as part of OER initiative budgets. The cost of institutional memberships should also be factored into budget requests. Membership in national organizations such as SPARC, OTN, and the Library Publishing Coalition, provide access to training, voting rights, advocacy materials, and a network of colleagues brainstorming solutions to shared challenges. State or regional consortia, such as Affordable Georgia and the Maryland Open Source Textbook Initiative, also offer excellent opportunities to connect with peers, contribute to multi-institution initiatives, and leverage shared resources.

In addition to collaborating as practitioners, OER librarians can build community through shared scholarship, a process we used in the conceptualization and writing of this article. From the conversations at the OTN program, we realized that we shared an intersectional feminist approach to our work and felt strongly that this theoretical framework should inform the practice of OER. We recognize the potential of scholarly articles as a venue to expand our initial conversations to a larger audience. In doing so, we hope to demonstrate the importance of applying critical and intersectional feminist values to our work, while contributing

to an emerging body of scholarship about the labor of OER and open education (Drabinski 2019). Transforming this project from a casual conversation to an actual article required camaraderie and more formal expectation setting. For OER librarians seeking to build community through scholarship, we recommend beginning the partnership by identifying and discussing shared values, expectations, goals, and timelines. It is also helpful to share details about other work and life commitments to help identify realistic timelines and division of responsibilities. Beyond partnering with your co-authors, consider reaching out to colleagues who are not directly involved in the project to request feedback. We benefited immensely from the time and insight generously shared by our colleagues. We hope to return the favor by supporting our colleagues in their scholarship as well. This project allowed us to put our ideas in writing, but it also allowed us to build relationships with each other and with our colleagues, which will continue beyond this single project.

Conclusion

Drawing on the literature of instructional librarianship and on critical and intersectional feminist frameworks, we argue that the affective labor of OER librarianship is feminized and therefore at risk of being undervalued and undercompensated. This is compounded by the LIS profession's replication of patriarchal and white supremacist systems, which present additional barriers for OER librar-

ians whose racial, ethnic, gender, and socioeconomic identities are marginalized in the profession. Despite librarianship and the open movement's stated goals of transparency, democracy, and equity, these values are not always reflected in our practice. To address the gap between stated values and practice, we suggest strategies for OER librarians' self-advocacy and community support. These strategies, grounded in intersectional feminist theory, present opportunities to honor the invisible labor that powers OER programs and to advocate for adequate compensation for such labor. We recognize that institutional contexts and personal identities impact librarians' abilities to effectively employ these strategies. Therefore, we hope that this article serves as a starting point for further conversations about how OER librarians can affect systemic change to apply the open values of transparency, accessibility, and reflection to our working conditions. In an invited talk at ACRL 2019, "Becoming a Proud 'Bad Librarian': Dismantling Vocational Awe in Librarianship"—the message of which inspired our own title here—Ettarh describes "bad librarians" as those who challenge vocational awe and critique injustices in the profession. Ettarh (2019) observes: "highlighting these injustices, speaking about them at work, etc. makes me bad. I personally think any librarian who speaks up about these deficits in our field, are truly upholding the ideals we espouse." We are inspired by Ettarh's work and message and agree that OER librarians should join her in becoming "bad librarians" who are unafraid to reject vocational awe and cri-

tique the profession in a desire to make it more just.

We urge all OER librarians to initiate conversations with their supervisors, peers, and partners to establish more equitable relationships that adequately value and compensate for OER labor. If you are a supervisor, administrator, or someone else who holds power through your position or access to resources, consider how you might support others in these efforts. We remain optimistic about the liberatory potential of OER informed by intersectional feminism.

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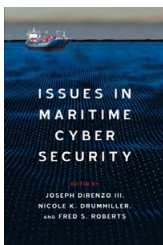
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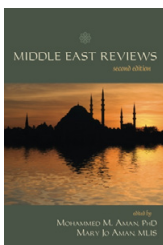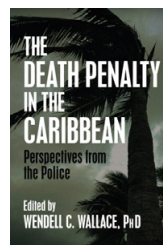
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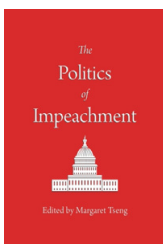
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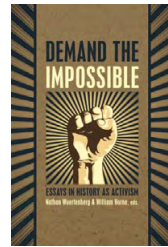
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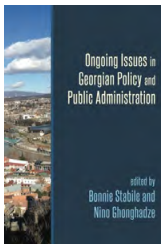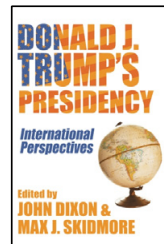
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