Avoiding the "Axe": Advancing Affordable and Open Education Resources at a Midsize University

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INTRODUCTION To address the soaring cost of textbooks, higher education institutions have launched a number of strategies to promote the adoption of affordable and open educational resources (AOER). Although a few models for promoting and sustaining alternative and open educational resources (AOER) at higher education institutions can be found in the professional literature, additional examples are needed to assist the wide of range of universities and colleges in meeting this critical need. **DESCRIPTION OF PROGRAM** In this article, the authors describe Miami University's ongoing efforts to reduce college textbook costs for students. These initiatives were instigated in some ways by the state legislature, but were also fueled by factual evidence regarding the impact textbook costs have on the student learning experience. The authors (university librarians and associate provost) provide a description of the institutional context and the challenges they faced in implementing AOER initiatives and chronicle the steps that their university has taken to address the challenge of rising costs of course materials. **NEXT STEPS** Next steps for growing the programs and recommendations for other institutions looking to develop similar initiatives are also explored.

In 2015, Ohio's governor unveiled a higher-education budget with a goal of making public universities and colleges in the state more affordable. In addition to imposing tuition caps, the bill called for the appointment of a task force to lower student costs, with particular emphasis on diminishing the exorbitant cost of textbooks, which has soared by more than 1000% in the past four decades (Popken, 2015).

After discussing the bill with the presidents of two- and four-year state-funded colleges and universities in his cabinet room, the governor reportedly commented to the press that "he would give high education leaders 'a chance to do this [lower students' cost of a college education] before we take an axe to them'" (Edwards, 2015). Persistent cuts to state subsidies, along with frequent messages about the high costs of higher education (Higher Education Compact, 2016; Clark, 2016), had librarians, faculty and administrators alike understandably concerned. Were our jobs on the line? we mused only half-jokingly.

Since that time, our university, guided by a committee chaired by three of the authors (two librarians, Jennifer Bazeley and Carla Myers, and the associate provost, Carolyn Haynes), has taken concerted steps to reduce college textbook costs for our students. The goals these three leaders identified for the committee are

- to create and implement programs and other incentives for affordable and open educational resource use;
- to provide support to faculty and students to enhance the effectiveness of open and affordable educational resources; and
- to assess the effectiveness of the use of free and low cost educational resources in the classroom.

Our work may have been instigated by the state legislature, but it continues to be fueled by factual evidence. The College Board Trade Group (2017) estimates that students spend $1250 annually on books and supplies for their courses. Costs for math and science-intensive books are even more extravagant.

In this article, we first provide a description of the institutional context and the challenges we faced. Then, we chronicle the steps that we have taken to address the challenge of rising costs of course materials, including creating

- a task force and white paper to define the issue and lay out an initial plan;
- a university-wide committee to guide the plan;
- communication strategies to educate faculty;

- multiple support structures and programs to promote affordable and open educational resources (AOER);
- assessment measures to gauge the effectiveness of these resources; and
- recognition for outstanding faculty achievement.

LITERATURE REVIEW

According to the Bureau of Labor Statistics (2016), the cost of textbooks has increased by over 88% in the past decade. To address this challenge, some universities have done as we did and launched one or more strategies to advance the use of affordable and open educational resources. Andrade et al. (2011) articulated five barriers that institutions must overcome to achieve success: (1) lack of institutional support, (2) lack of technological tools for sharing and adapting resources, (3) lack of skills and time of users, (4) lack of quality of OER, and (5) personal issues such as lack of trust and time (p. 159). In addition to these impediments, McKerlich, Ives, and McGreal (2013) have found that faculty sometimes have difficulty identifying high-quality alternatives to traditional, commercial texts; and Mishra (2017) asserts that even more important than identifying high-quality AOER is understanding and addressing the attitudes, motivations, and perceptions of faculty. Although a few models for promoting and sustaining open and alternative resources at the postsecondary level are available (Downes, 2007; Friesen, 2009; Lashley et al., 2017; Wiley, Williams, Demarte, and Hilton, 2016), additional models and practical guidance will be needed as universities and colleges of all shapes and sizes continue to move in this direction. This article describes the way that we have attempted to address the barriers that have been raised in the professional literature.

DESCRIPTION

Context and Guiding Principles

Miami University (Ohio) is a public university with a primary focus on undergraduate education that enrolls approximately 24,000 students each year. It has a main residential campus that serves traditionally aged undergraduate students and two additional commuter campuses, both within 60 miles of the main campus.

Academic Affairs encompasses six academic divisions, spanning arts and science, engineering, business, education, and creative arts. The university's curriculum is robust, with 12 associate degree programs, over 120 bachelor's degree programs, 60 master's programs, and 14 doctoral programs, which are taught by over 1,500 faculty members. The university libraries have a physical presence on all three campuses and employ 42 librarians and 47 support staff.

Given the size and complexity of the university, the prospect of transforming the culture of course materials was formidable. To guide our work, we as the leaders of the effort developed and abided by the following principles:

- Ensure that there is clear commitment to lowering or eliminating textbook costs from leadership, including the president, vice presidents, provost, and deans.

- View faculty and librarians on the committee as equal partners in creating and implementing strategies and plans.

- Take time to understand the challenges facing students and faculty in selecting and using course texts, and, when possible, eliminate paperwork and bureaucratic processes for students and faculty.

- Use data and the end goals to guide decision-making and to assess success and progress.

- Build on the existing academic and student support resources on campus, and incorporate the promotion of OER and affordable texts into existing structures when possible.

- Innovate and be willing to make mistakes.

- Motivate change via incentives and rewards, rather than directives or mandates.

- Communicate on initiatives and progress to faculty as often as possible.

These principles were initially shaped by the experiences of and collaborations among those of us overseeing the effort, and then honed over time by the oversight committee via additional experience and research into the professional literature.

Infrastructure

As noted earlier, transforming the culture of course materials at a university can be a daunting process. Through experimentation with different outreach methods over the past decade, we discovered that facilitating Faculty Learning Communities (FLCs) on topics such as information literacy and scholarly communication is an effective way to create faculty awareness of these integral issues across disciplines (Bazeley, Waller, & Resnis 2014).

At Miami, we define an FLC as "a cross-disciplinary faculty and staff group of six to fifteen members (eight to twelve members is the recommended size) who engage in an active, collaborative, yearlong program with a curriculum about enhancing teaching and learning and with frequent seminars and activities that provide learning, development, the scholarship of teaching, and community building" (Cox, 2004, p. 8). FLCs at Miami are an ingrained part

of the faculty culture. Each year, faculty or staff may propose to lead an FLC on a particular topic through Miami's Center for Teaching Excellence (the university's faculty development center). The center director selects approximately a dozen topics to support each year and provides funding for refreshments and supplies; faculty apply to participate in an FLC on a topic that interests them, and those selected for each FLC receive a modest amount of professional development funds for successful completion of the FLC.

In each of the two FLCs on scholarly communication (2012–13 and 2013–14), librarian facilitators who proposed and led the FLC included a unit on OER. This unit yielded keen interest among both cohorts of FLC participants, leading the librarian facilitators to launch a yearlong FLC dedicated solely to OER in 2014–15. In the first semester, participants discussed scholarly communication issues such as open access, copyright, licensing, and the Creative Commons. That semester culminated with an introduction to OER, while the second semester built on that work through discussion of OER models and an exploration of OER projects and efforts already underway across the country. For the group's final project, the FLC participants chose to author a white paper that included the following sections:

- OER definitions, best practices, and benefits;
- OER as a strategy to meet specific goals within Miami University's strategic plan;
- Implementing open culture at Miami University; and
- Preliminary plan for implementing OER at Miami University

The final white paper (Waller et al., 2015) was disseminated to the dean of university libraries and the provost, and its findings were presented at a variety of venues across campus, including a dean's retreat, a University Senate meeting, and a staff meeting for all librarians. Though it may sound like a cliché, the white paper was produced in the right place at the right time. State-level discussions as well as the national climate relating to cost in higher education had already put OER on the radar of the central administration and library staff. Moreover, because it included faculty as coauthors, its position was viewed as more credible among the faculty.

As a result of the paper and the outreach and response surrounding it, the provost and the dean of libraries decided to join forces to advance affordable and open educational resources that would leverage the expertise of both units. The libraries could provide knowledge in scholarly communication and OER, while the Provost's office could promote faculty buy-in and understanding.

The first three steps in OER implementation included (1) creating an Affordable and Open Educational Resources Committee (AOERC); (2) joining the Open Textbook Network;

and (3) revising the library's scholarly communication librarian position to focus more pointedly on open educational resources.[1]

At the request of the dean of the libraries and provost, the first iteration of the AOERC was initially chaired by the two librarians who facilitated the OER FLC. For membership, the provost and dean selected two faculty members who had been part of the OER FLC as well as a representative from the university bookstore and a student representative. The inclusion of a bookstore representative was made purposefully to ensure that the bookstore leadership fully understood the critical need for OER adoption in the higher education landscape and would serve as an advocate for our efforts in the future. The charge of this group was twofold:

1. Develop a strategy to implement AOER in appropriate courses with high enrollments;
2. Work with bookstore staff to determine ways to lower the cost of traditional textbooks and supplies until a greater shift toward open educational resources was enacted.

To fulfill the first goal of the committee's charge, the group deliberated regularly throughout the academic year on critical AOER-related issues such as: the needed investment of faculty time; the potential role of the library/librarians; the necessary resources for AOER adoption including maintenance and update of materials; realistic target outcomes; a timetable for implementation of AOER in a single course; and possible assessment methods. The group ultimately concluded that in order to develop strategies to address these issues as well as to partner with other campus stakeholders (e.g., information technology, e-learning, and accessibility services), a larger committee with broader representation from across academic divisions was required.

To meet the second goal, committee members actively participated in a request for proposals (RFP) initiative that had already been initiated by the university's Division of Business and Finance Services to transition from a traditional brick-and-mortar bookstore approach toward a digital approach. Committee members participated in open meetings with potential vendors, with the goal of ensuring that textbook affordability (including the use of AOER by faculty) was prioritized in the selection process. The committee ultimately issued a recommendation to the vice president of finance and business services of a preferred e-bookstore vendor, which was fortunately the same vendor selected.

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[1] For more information on the Open Textbook Network, see https://research.cehd.umn.edu/otn/.

The second implementation step was for the Libraries to join the Open Textbook Network (OTN), an international organization designed to promote the growth and benefits of OER. Membership in the OTN allowed our library staff to gain access to a network of pooled knowledge and best practices and thus deepen our librarians' expertise.

The third implementation step was to revise the duties of an unfilled librarian position so that the person hired would oversee all aspects of scholarly communication, with a new emphasis on AOER initiatives. The person would also be responsible for training and collaborating with all subject librarians across all campuses of our university so that they could also assist in promoting AOER to their constituents. The hiring of the new coordinator of scholarly communication in January 2017 coincided with the creation of a broader University Committee for AOER (as recommended by the original smaller committee and commissioned by the provost and dean of university libraries), as well as a directive by our state's department of higher education to include OER adoption as part of the university's state-level efficiency reporting.

This committee is co-chaired by the associate provost, coordinator of scholarly communication (libraries), and coordinator of collection access and acquisitions (libraries). The group meets regularly throughout the academic year to support the affordability and OER programs and services described later in this article. The group's cross-disciplinary representation allows for a balanced discussion of initiatives (including an honest appraisal of the benefits and challenges of OER adoption) and a fair review of faculty applications to those initiatives. Committee members were nominated by their academic deans. The faculty representation on the committee from each of Miami's academic divisions enables more efficient communication, outreach, and collaboration to academic departments. Each academic year begins with the members reviewing and enhancing the committee's charge, guiding principles, and annual goals. An annual budget is prepared by the committee cochairs and presented to the provost and dean of libraries for approval.

Communication Strategies

Throughout the implementation process, the provost's office, libraries, and committee members have relied on a variety of communication strategies to strengthen awareness and involvement across all Miami campuses. As a starting point, two websites have been created: (1) an AOER LibGuide,[2] which is housed on the libraries' website and used as a clearinghouse for general AOER information, contacts within the libraries, and discipline-specific AOER resources; and (2) a summary of AOER initiatives that resides on the provost's website.[3] These websites are reviewed and updated each academic semester or term.

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[2] The LibGuide can be found at http://libguides.lib.miamioh.edu/OER.

[3] The Provost's web page can be accessed at https://miamioh.edu/academic-affairs/teaching/open-educ-res/index.html.

Public presentations at a wide variety of forums such as University Senate meetings, provosts' and deans' retreats, academic administrators' breakfasts, and faculty and student library advisory group meetings have been immensely helpful, especially in the initial stages of planning. The annual celebration of Open Access Week sponsored by the libraries has also been an excellent means of OER outreach. In 2017, OA Week activities included a panel discussion by several of the faculty who applied for and received awards to implement AOER in some form in their classrooms. The resulting discussion was not only inspiring, but provided the beginning stages of feedback on best practices in using AOER in the classroom.

With the creation of the larger AOERC has come a proactive and targeted effort to reach faculty. The Associate Provost contacts each department chair annually to request a short (5–10 minute) slot at a department meeting during the academic year. One or two committee representatives attend the faculty meeting, review a short list of talking points created by the AOERC, and disseminate a one-page informational handout. Knowing that faculty often have concerns about the availability of quality OER in their field, which can impede adoption (Allen and Seaman, 2014; Belikov and Bodily, 2016), the libraries have also acquired and cataloged print copies of all of the OpenStax textbooks[4] currently available, and committee representatives often share an example of an OER in the department's discipline at these faculty meetings. Seeing an OER in tangible form seems to assure even the most skeptical faculty that OER can provide quality textbooks and course materials for their discipline. Additionally, because the associate provost reviews all curricular proposals, she reaches out to faculty proposers, inviting them to consider AOER as they are designing a new program or course.

Support Programs and Services

With the full support of the provost and dean of libraries, the AOERC has developed and implemented the following programs and services related to AOER.
OER Initiatives

OER Explore. Based on a model developed by the Open Textbook Network, the OER Explore workshop is intended to help faculty better understand textbook affordability issues and possible solutions for addressing them. During this two-hour workshop, faculty learn about how the cost of textbooks can negatively impact student learning, are introduced to the concept of OER, and participate in hands-on activities using OER textbooks. The workshop concludes with an overview of Miami University's OER and Affordable Learning

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[4] For more information on OpenStax, see https://openstax.org/subjects.

grant programs. After faculty write and publish a review of an OER textbook in their field, they receive a modest stipend.

OER Adopt. This selective grant program supports faculty in replacing their commercial textbook with an OER. Faculty submit an application; those selected must complete a three-phase program and receive professional development funds when each phase is successfully completed.

Phase one

- The faculty member teaches the course using a commercial textbook and required learning materials.
- Assessment is performed to gauge the impact of the traditional textbooks and other required materials on student learning and course outcomes.
- In collaboration with their subject librarian and the coordinator of scholarly communication, the faculty member selects and prepares OER materials to be used in teaching future sections of the course.

Phase two

- The faculty member teaches the course using the selected OER materials.
- Assessment is performed to gauge the impact of the OER textbook and other newly selected learning materials on student learning and course outcomes.

Phase three

- The faculty member makes necessary revisions to the OER text and learning materials based on previous assessment.
- The faculty member uploads any OER created or modified in the course to the OER Collection in Miami's institutional repository, the Scholarly Commons.
- The faculty member writes a report evaluating the impact of the OER on the course outcomes and student learning, and on student and faculty satisfaction as well as plans for future use.
- The final report is shared with the AOERC as well as colleagues within their department and peers in the profession.

OER Create. Launching in the fall of 2019, this grant program supports faculty who wish to write and publish their own OER textbook and learning materials. As an incentive to do so, Miami University provides faculty significant professional development funds (e.g., $2,000–$5000, depending on the level of need) as well guidance and support for publishing the OER (e.g., editorial services, layout, and electronic publishing). To accomplish this, the university agreed to be an inaugural partner (with nine other higher-education institutions) in the OTN Publishing Cooperative.[5] OER developed as part of this grant program will be published to the OER Collection in Miami's institutional repository and in the Open Textbook Library (OTL).

Affordable Text Resources

Realizing that OER are not a solution for every course (some fields lack high-quality OER, and at this point, some faculty are not comfortable with technology), the committee generated two other grant initiatives designed to address student costs in higher education.

Course Pack Consultation Service (CPCS). Similar to the one used at the University of Toronto (Cancilla, Glushko, Orfano, & Slaght, 2016), this service allows faculty to reduce or eliminate the costs associated with commercially produced course packs. To be eligible for this program, faculty must currently be using a readings-based course pack (e.g., one that contains articles and book chapters) that students are required to purchase and must agree to use the university's learning management system (LMS) to make readings accessible to students in subsequent semesters. Applications are considered on a rolling basis during the academic year, and processing priority is based on the number of students in the course, the cost of the course pack, and how frequently the course is taught.

In the consultation, the coordinator of scholarly communication reviews the list of materials included in the course pack to determine which readings can be made freely available to students through the library's purchased electronic collections (eBooks and electronic articles) or through other freely and legally accessible online outlets (e.g., linking to archival materials on state historical society websites). Links to these works are posted to a page in the instructor's LMS course site for students to access.

For those readings that are not available digitally, a fair use assessment is performed by the scholarly communication coordinator (as part of the service) to determine whether a copy of the work can be made available to students utilizing exceptions found in US copyright

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[5] For more information about the OTN Publishing Cooperative, see http://research.cehd.umn.edu/otn/open-textbook-network-launches-the-publishing-cooperative-to-support-open-education-expansion/.

law (e.g., the fair use exception, found in Section 107 of Title 17, United States Code). If it is determined that providing a copy of the reading falls within the scope of one of the exceptions, a copy of the work is posted to the instructor's LMS course site. For those readings that fall outside the scope of the exceptions, permission is sought from the rightsholder to reuse the work as part of course instruction, or the library liaison works with the faculty member to find a comparable resource in the library's electronic collections that can be used. Faculty participating in the CPCS are awarded modest professional development funds after the consultation.

Alternate Textbook Service. The Alternate Textbook Service, or ATS, involves a collaboration between the course instructor, subject library liaison, and the coordinator of scholarly communication to replace the instructor's commercial textbook with an "alternate" textbook composed of resources pulled from the library's electronic collections, online legal resources, and reading selections made available in compliance with US copyright law. Not only is this alternate textbook made freely available to students, but this collaboration between librarian and faculty also promotes the use of library resources and draws attention to the diversity of the libraries' collections. Faculty apply for this grant program with a simple online form, and those selected are provided with modest professional development funds. Table 1 summarizes the initiatives and implementation timeline:

Initiative	Description	Cost	Implementation
OER Explore	Two-hour introductory workshop for faculty followed by review of an OER in the faculty member's field	$200 upon completion of the review	Year 1
OER Adopt	A three-part grant program where a faculty uses and assesses a traditional, commercial text; identifies and adopts an OER and assesses it; and presents findings to colleagues on the OER adoption experience	$1,000 in professional development funds for completion of each part	Year 2
OER Create	Professional development funds, services, and support offered to a faculty to develop a new OER	$5,000 in professional development funds	Year 4
Course Pack Consultation Service	Service for faculty to identify options for making readings in a commercially produced course pack that is freely available via linking to resources the library has licensed or that are made freely and legally available online, by utilizing exceptions found in US copyright law, by seeking permission to use the work, or by finding a comparable licensed work in the library's online collections.	$200	Year 2
Alt Textbook	One-time amount for working with librarians to identify educational resources that students can be accessed for free (through the library) and can serve as a substitute for a textbook.	$500–750 in professional development funds; amount depends on the level of complexity of the text	Year 3

Table 1. Grant Program Implementation Timeline

One of the major benefits of featuring multiple AOER programs is that it offers opportunities for a wider range of faculty, who have varying needs and levels of experience and comfort with AOER. However, managing so many programs can also be daunting. With five separate initiatives being implemented over the course of two years, the AOERC worried about the difficulty of keeping track of the participants as well as other important data (OER usage, cost savings, number of faculty involved). To address this concern, the committee designed and developed a "project site" within our LMS.

As faculty are awarded grants or agree to participate in various programs, they are added to the project site. There they can find additional information and resources on OER, submit information about their use of traditional textbooks and OER or other affordable options, track their progress through various phases of the grants and programs, and submit final reports and reflections.

Assessment

To ensure that OER use is effective and to convince skeptical faculty of their value, the AOERC decided to require recipients of the OER Adopt program to assess whether the OER impacts student learning and their experience in the course, either positively or negatively. For this assessment requirement, faculty are encouraged to compare student performance on the same test or assignment when they teach the course using a traditional text and when using the adopted OER. Additionally, they are required to complete a Small Group Instructional Diagnosis (SGID) when they teach the course using the traditional text and again when teaching it with the OER and to include a reflection on their experience teaching with the OER in their final report.

The Small Group Instructional Diagnosis (SGID) is a common student perception assessment tool developed by Clark and Redmond (1982). SGIDs are utilized often in higher education to help faculty understand student learning perceptions and preferences so they can enact immediate change based upon the results.

The SGID was chosen to assess OER quality because, similar to a focus group, it allows for follow-up questions so that the facilitator better understands the advantages and challenges of OER utilized in the classroom. The 'return rate' is also considerably higher than other tools such as surveys, as the technique is usually completed in the classroom during class time. As a low-stakes method, faculty buy-in is high. Finally, since SGID is a commonly used technique on Miami's campus already, most faculty and students understand its value. To advance our goals, we modified the standard SGID protocol slightly to include a specific question related to course texts and materials (see question 3 in the discussion that follows).

After being accepted into the OER Adopt program, the faculty member arranges for the SGID to be conducted in the course where a traditional textbook is utilized. In a later semester or term when the OER is first adopted by the faculty member teaching the same course, another SGID is conducted. The SGID occurs around the midterm of the semester so that students have had enough time to develop informed opinions on the quality of the course text and the quality of teaching in the classroom. Before the SGID occurs, the facilitator meets with the instructor to discuss the method and the prompts to be asked during the session.

For in-person courses, 25 minutes of the class is typically allotted for the SGID. The instructor is not present during the SGID. Students are divided into groups of two to three, and presented with a worksheet of prompts that focus on the quality of teaching and the quality of the course text:

1. What does your group see as the two or three most important concepts for you to learn in this course?
2. Please list any strengths/suggestions for improvement regarding the professor's teaching style or course design that have helped you effectively learn. Consider these elements of the class:
    - Course Content
    - Course Materials/Readings
    - Organization of the Course
    - Methods of Instruction
    - Evaluation of Student Learning
    - Style of Instruction
3. Please list the ways in which the textbook has or has not been helpful to your learning: you may wish to consider content, organization, clarity, ease of use, quality, availability, and cost.
4. What are *you* doing or what could you be doing to improve your learning in this course? List two or three items.

Groups discuss each prompt for approximately three to four minutes, and then report to the facilitator. The facilitator asks clarification and follow-up questions, if necessary. The facilitator also attempts to determine priorities (i.e., what is the greatest strength of the OER) and (if possible) the consensus view of the group. Each prompt is discussed individually, and the facilitator ensures that the feedback of the group is recorded appropriately. Work-

sheets (one per group) are also collected to confirm the findings of the conversation, and to determine whether any trends are evident that were not discussed in person.

The SGID for an online course is divided into two sections, each occurring asynchronous of class. For step one, students are individually presented with all four prompts, and provided a week to enter feedback. After the week is complete, the facilitator examines the data for overall trends. Major trends are formed into statements, and students are provided a Likert scale to indicate their agreement with each trend statement. Students are provided a week to complete this second step of the SGID.

For both types of SGIDs, the facilitator drafts a report that provides a summary of the conversation and the overall trends of the conversation. To protect anonymity of the students, individual results are not shared with the instructor. After the report is drafted, the facilitator and course instructor discuss the results and any next steps that might be needed to address report suggestions. Results for each academic year are compiled and shared with the AOERC. In this report, suggestions are included on how they can improve OER program structure and/or training to address SGID results throughout the year.

Other Efforts to Advance Affordable and Open Educational Resources

The members of the AOERC have expressed the concern that the committee should not be viewed as the sole promoter of OER and affordable resources. To address this issue, committee members have partnered with other Miami leaders to embed the promotion of AOER into existing university programs and initiatives. Examples of engagements with other leaders include the following:

- Working with the Center for Teaching Excellence to incorporate information on AOER support programs at new faculty orientation and other on-campus teaching-related conferences and symposiums;

- Encouraging the instructional design team in our e-learning office to facilitate discussions on these issues as part of Miami's e-Learning faculty workshops;

- Partnering with Miami's IT services department to promote the use of student technology fee funds to help support the creation of unconventional OER (e.g., a module-based learning tool) and supplementary materials that enhance the way in which students learn and engage with OER;

- Working with Miami's student disability services to help ensure that the AOER being used on campus are fully accessible for students who have visual or hearing impairments or other disabilities;

- Reaching out to the university registrar's office to include a question relating to affordable course texts and materials in all curricular proposal forms.

Recognition

Researchers have noted that motivating faculty to adopt AOER can be a significant challenge (Taylor & Taylor, 2018; Allen and Seaman, 2016). To address this challenge and advance our committee's guiding principle of preferring incentives over directives, we have also worked to institute a number of inducements and forms of recognition to promote affordability in course texts.

For example, the university's textbook policy was revised to include a paragraph that explicitly encourages faculty to consider textbook affordability when selecting a textbook:

> The selection and adoption of textbooks and/or course materials are an academic departmental responsibility. Academic departments are encouraged to adopt the most appropriate and highest quality textbook for presenting course content and accomplishing course objectives. However, to maintain our goal of higher education access and affordability for our students and to comply with the Ohio Department of Higher Education statutory requirements, academic departments are also encouraged to take into consideration the cost and expense of the textbook and other materials for the student taking the course when making adoption decisions.

Additionally, the university's policy that requires multiple levels of approval for faculty wishing to teach courses that use a textbook they have authored was altered to eliminate any approvals for faculty teaching an OER which they authored.

Second, to ensure that department chairs, deans, and personnel committees recognize the efforts of faculty to incorporate affordable texts into their courses, the AOERC created a proposal for revising the annual report and dossier format to include a specific mention of open and affordable educational resources under the category relating to innovative teaching materials. The language was revised to include adoption or creation of OER as evidence of teaching effectiveness.

Third, Miami University's AOERC partnered with the leadership of our student government to develop an annual award (modeled after a similar award at Texas A&M University) to be given to a continuing faculty member on any campus who demonstrates compelling and significant impact in areas related to affordable and open educational resources. Winners of the award demonstrate one or more of the following practices:

- adopting or adapting free course texts;

- providing free electronic notes or textbook alternatives;

- using or incorporating free educational resources or materials in classes;

- creating open educational resources;

- publicly sharing research, works, projects, or other educational resources on Miami University's institutional repository, Scholarly Commons, or other scholarly repository; or

- championing the goal of making use of free and affordable educational resources beyond the faculty member's own classroom (e.g., through presentations, publications, or coordinating use of an OER across multiple courses or sections of courses).

Student government leaders recognize the winner at a major faculty awards banquet held in the spring semester. In spring 2018, Andrew Paluch, assistant professor of chemical, paper, and biomedical engineering, was named Miami's first Affordable Education Leader Award winner. Dr. Paluch created an open textbook for his course on chemical and bioengineering computation and statistics. In the SGID for the course, students expressed appreciation for the dynamic nature of the book, which could be revised by the instructor often during the semester based on students' questions and performance on tests. They noted that example problems actually applied to homework and projects, and they applauded the free cost, ease of access, consistent layout, and clear organization, as well as the ability to use the textbook as a future resource.

NEXT STEPS

Because most of these initiatives are less than two years old, significant assessment findings are not yet possible. However, preliminary data is promising. To date, 72 faculty have attended an OER Explore Workshop and completed a review of an OER in their field. Through the OER- Adopt Program, faculty are now testing OER in multiple courses including introduction to psychology, general chemistry, art history, Spanish language, Latin American studies, chemical engineering, social psychology, world History, English as a Second Language, and introductory science education. Although only a few have completed the SGID assessment when teaching the course with the OER, thus far, the students' perception of the OER has generally been positive. Not only do students appreciate the affordability of OER, they also appreciate the ease in availability. Similar to a traditional textbook, students have noted that OER work best when fully integrated with class content and activities. The other programs are still too new to have yielded any meaningful results.

When working with faculty, we have found the following benefits of OER and other afford-able text options. They can

- provide greater access to learning;
- be easily scaled (once developed) since they are of little or no cost;
- be altered and improved easily through direct editing by users or through solicitation and incorporation of user feedback;
- be less costly for students;
- be quickly circulated and thus have the potential to be more relevant and timely; and
- showcase the expertise of faculty when they create their own materials.

Although there are many important benefits, we have also experienced some challenges that must be recognized and addressed in the future, such as

- quality control issues, since not all OERs may be carefully reviewed and vetted;
- language or cultural barriers, particularly for non-native English language speakers;
- technology issues, particularly if students have slow or no internet connectivity, or the faculty member wants to create interactive open educational resources;
- changes in pedagogy, particularly if the faculty member adopting the OER typically does not allow computers and smart phones in the classroom; and
- intellectual property and copyright concerns.

Fortunately, we believe these challenges are surmountable with careful and purposeful plan-ning, trial and error, and creative problem-solving. Although we are fortunate to have se-cured funding from the dean of libraries and the provost to support our programs, most of our efforts need little to no funding. And many faculty are committed to this effort because of their belief in the value of affordable higher education.

Not only are college tuition rates continuing to climb, but students are also having to pay unjustifiably high amounts for college textbooks. By eliminating or reducing the cost of textbooks, we help individual students attain college degrees and, by doing so, we take a small but important step toward advancing the economic and social health of the country. As noted by Heller and Gaede (2006, p. 4), because they help to revitalize the public sphere of learning and advance greater access to higher education, open educational resource ma-terials serve a "vital public and social good."

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