Developing an Open Educational Resources (OER) Course: Benefits and Barriers

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Textbook prices have soared over the past two decades, placing a heavy financial burden on students and impacting some students academically. Legislation at both the federal and state levels has been passed in an attempt to intervene the textbook affordability crisis. Open Educational Resources (OER) is lauded as an affordable alternative to costly print textbooks, a possible solution to this crisis. This paper describes a university faculty's experience of integrating OER materials in an online graduate reading pedagogy course and reflects on the benefits and barriers of teaching with OER. The OER project is described, the course redesign for integrating OER is detailed, the benefits and barriers of teaching with OER from a faculty's perspective are discussed, and recommendations for future OER implementation are presented.

INTRODUCTION

In the fall semester of 2014, I participated in an Open Educational Resources (OER) project sponsored and funded by a university grant. With a cohort composed of 10 faculty members from different departments and colleges, I started with being exposed to the term and the concept of OER for the first time to integrating OER in one of my online graduate courses, and finally publishing my work onto the university's OER website.

Orr & Damme (2015) see OER as an approach making contribution to addressing six key educational challenges. They believe that OER (1) fosters the use of new forms of learning for the 21st century, including learners working as a community, developing their own learning materials and supporting each other, (2) fosters teachers' professional development and engagement by allowing teachers to revise and tailor the educational resources to fit their own instructional environments, (3) contains costs of education through developing, sharing and updating high-quality resources cost effectively, (4) continually improves the quality of educational resources with its ability to adapt to keep educational resources at pace with the dynamics of knowledge, (5) widens the distribution of high-quality educational resources by breaking down boundaries to ensure a more even distribution, and (6) reduces barriers to high-quality learning opportunities by long distance delivery with digital resources.

As a faculty teaching at a state university, my interest in OER largely focused on the two possibilities OER promises: reduction of educational cost and easy and wide distribution of high-quality digital resources. The purposes of this paper are to share my experience with integration of OER materials in my online course and my reflection on this experience.

REVIEW OF LITERATURE

The term Open Educational Resources (OER) first came to use in 2002 at the conference hosted by the United Nations Educational Scientific and Cultural Organization (UNESCO) (Khanna and Basak, 2013). OER is commonly defined as "teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others (Atkins, Brown, & Hammond, 2007, p.4).

As a special type of innovation in education, OER offers a range of benefits, from promoting collaboration among communities of teachers to continuously improving educational contents, from enhancing teacher knowledge sharing and exposure to supporting teacher professional development (Petrides & Middle-Detzner, 2010). This paper, however, will focus on two benefits that OER is commonly recognized to offer.

Reduction of Educational Cost

Textbook prices have soared over the years, having been "increasing exponentially over the past two decades" (Okamoto, 2013, p. 268), more than four times the rate of inflation (Student PIRGs, n.d.b.), placing a heavy finanacial burden on students and imapct students academically, some unable to to complete college due to cost of textbooks and related fees (Raschke & Shanks, 2011), some not registrering for a course or a section due to the cost of textbook (cited in Okamoto, 2013).

To intervene the textbook affordability crisis, the Federal Higher Education Opportunity Act (HEOA) of 2008 included three textbook privisions (Student PIRGs, n.d.b.) to ensure textbook cost transparency to students. About 40 states have passed similar textbook legislation (Okamoto, 2013).

OER is lauded as an affordable alternative to costly print textbooks, a possible solution to the textbook affordability crisis. In the past several years, an exponential increase in the creation and use of OER has been observed (Prasad & Usagawa, 2014). Academic libraries use their skills and strenths to support, promote and facilitate discovering and accessing OER materials (Okamoto, 2013) to help reduce educational costs for students.

Wide and Easy Distribution of Educational Resources

The OER movement leads to a radical thinking as to how course material and educational resources are to be produced, shared and reused (Khanna & Basak, 2013). It proposes extensive free access to web-based digital resources for teaching, learning and research. OER are placed in the public domain for free use or repurpose by others, ranging from full courses to individual modules (Knox, 2013).

OER materializes its promise of sharing and collaboration under free and open licenses in its "four Rs" (Hilton, 2010; Wiley, Bliss, & McEwen, 2014):

1. Reuse – to use the work verbatim.
2. Revise – to alter or transform the work.
3. Remix – to combine the work (verbatim or altered) with other works.
4. Redistribute – to share the verbatim work, the reworked work or the remixed work with others.

In education and academia settings, access to resources for revision, remixing and redistributing is extremely limited due to intellectual property rights. OER approaches intellectual property rights with much more flexibility by using Creative Commons, which uses "transparent licenses to communicate the potential for revision, remixing or redistributing work and regulate in what contexts it is possible" (Orr & Damme, 2015, p.19). Thus, OER is able to provide "learning opportuities to those who would not otherwise be able to obtain them" (cited in Knox, 2013, p.822).

THE OER PROJECT

The course I signed up for the project was a graduate reading pedagogy online course. I taught reading pedagogy courses for several years. Over the years, I have found and incorporated many digital resources in the course, such as journal articles, videos, PowerPoint presentations, websites, etc., but I know that there's a wealth of quality resources out there waiting to be identified and made use for my instruction. I hoped that participation in the OER project would enhance my knowledge and sharpen my skills so I could reach and obtain much more high-quality digital resources with much more efficiency. With the open access materials, my student wouldn't need to buy a textbook and any other course-related supplemental reading materials when they enrolled in this course, so their educational expense could be reduced.

The Process

The project consisted of one informational meeting, two one-on-one participant & OER Committee Librarian meetings during the summer, six cohort meetings during the fall semester, and teaching the course with OER and publishing of the course onto the university OER website in the spring semester.

At the informational meeting, a brief introduction of OER was provided, including an overview of OER and a university libguide website designated for OER. The participants were introduced to Creative Commons and the Find OER page by the Open Professionals Education Network. They were also informed of the two outcomes required of them for receiving the $1000 incentive at the end of the project: (1) provision of links to their OER units. This was to publish their work and any of their personal activities, rubrics, etc. that they wanted to be OER onto the university OER website, (2) provision of a brief written report about the effectiveness of two of the OER units or resources they used in teaching the course. At the meeting, the participants were asked to refer to the OER website for self-learning of OER and locating OER materials for their courses.

At the first of the two one-on-one with the OER Committee Librarian, the participant was asked to bring with him/her the current course syllabus with units, modules, textbook chapters listed, present a wish list of the materials he/she would ideally need to meet the course and unit objectives, and share at least one resource he/she found through the university OER libguide or elsewhere that meets the definition of OER. At the second one-on-one meeting, the participant was asked to bring a complete wish list and list of tentative modules found and present at least one module or unit ready for trial in a fall course.

The six cohort meetings were spread out throughout the fall semester. The first four meetings focused on topics relating to general information on instructional design, assessment and copyright. The last two meetings were for participants to share their works in progress.

At the final stage of the project, the participants executed their courses OER and published the course on the university OER website.

Throughout the project, the faculty participant was on his/her own searching for OER.

Course Redesign for OER Integration

The major change I made to the course was that I removed the requirement of purchasing a textbook for taking this course. I sent the notice of textbook cancellation to the university bookstore and post a message on the course website, informing students that they didn't need to purchase a textbook for taking this class because the course would use OER.

The second major change to the course delivery was that I replaced all the learning materials with OER.

I reorganized the course around eight topical units. All units use the same format: Unit Overview, Unit Objectives, Required Reading, Further Reading, and Assignments.

I went to the university's OER libguide site to search for OER for my course as asked by the project facilitators, such as Merlot, OER Commons and Openstax College, etc. I started with looking for a textbook for the course, but found nothing. Then I searched for reading and multimedia resources aligned

with the objectives I developed for each unit. After many hours of search, I wasn't able to find much new resources beyond those I already knew and utilized in my teaching. Though there's an overwhelming numbers of resources stored in those sites, I was not able to find a textbook for reading pedagogy nor any new resources beyond what I already knew and had.

DISCUSSION

Reflecting on my participation of the OER project, I feel the experience both beneficial and challenging.

Benefits

The 21st century calls for a new form of professional collaboration that emphasizes community. My participation in the OER project provided me an opportunity to collaborate with other members in the educational community. In this community, I was a consumer and a contributor as well.

The adaptability of OER allowed me to revise and tailor its resources to better fit my instructional needs. OER's openness and lack of restrictive copyright made free reuse and repurposing of the resources I chose to incorporate in my course easy and efficient. It's convenient and efficient for me when incorporating digital resources in my online course as I didn't need to worry about copyright as I used to and there's no need to spend time contacting authors and/or organizations for their permissions to use their works.

With no need to purchase a textbook for the course, I was able to reduce the course cost for my students, a feature warmly welcomed by my students.

Barriers
Imbalanced Availability of Variety of Resources

Though there's a wealth of resources on the OER websites, such as Creative Commons, OER Commons, Merlot, etc., there's an apparent imbalance in the content availability: while some subjects/disciplines have an overwhelming amount of resources, the inventories for some areas/domains are limited, or very little, or even none. I wasn't able to find a textbook for reading pedagogy after many hours' search.

Ineffective Organization of OER Websites

I found it hard to locate the resources I need on those OER websites. There's a lot of waste of time and effort when I tried to search for information and resources that fit my needs because the resources there are not effectively organized. In the end, I had to resort to checking the resources I had already known and/or incorporated in the course against those websites, keeping the resource as OER if it's found there, and letting it go if it's not found there. My findings in OER websites as brand new course materials were virtually close to zero.

Insufficient Training in Using OER

Throughout the project, we were not trained or taught the necessary skills and information needed for using the OER websites. We were introduced to those OER websites and asked to explore them in our own time by ourselves. That was all. I would partially, if not largely, attribute my failure to locate any new resources on the OER websites in my search to this lack of necessary search skills and knowledge.

Inconsistency in the Level of Quality of OER

During my search on those OER websites, I found there's an inconsistency in resource quality. While there are many quality resources, some resources are weak, unpolished and even sloppy.

RECOMMENDATIONS

Based on the experience I had with this OER project, I would make the following recommendations for OER implementation on university campuses:

- Provide proper training for faculty choosing to use OER. Faculty can benefit from training specific to OER, such as navigating, licensing, software compatibility, etc.
- Provide a more effective and organized system/mechanism so that the relevant resources can be identified, located and traced more easily.
- Provide more technical support for faculty using OER. For example, a librarian can be paired with the faculty, helping with finding the needed resources and determining the copyright status of the resources.
- Rate the quality of OER with a coding system, so faculty can direct his/her time and effort more efficiently during the search.
- Provide incentives for faculty members utilizing OER, e.g., time release, credit for academic promotion, etc. Using OER for teaching requires a lot of time and effort commitment. Without necessary incentives, faculty will not be motivated to join in the club, teaching OER.

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