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Making Higher Education More Affordable, One Course Reading at a Time: Academic Libraries as Key Advocates for Open Access Textbooks and Educational Resources

Karen Okamoto

Open access textbooks (OATs) and educational resources (OERs) are being lauded as a viable alternative to costly print textbooks. Some academic libraries are joining the OER movement by creating guides to open repositories. Others are promoting OATs and OERs, reviewing them, and even helping to create them. This article analyzes how academic libraries are currently engaged in open access textbook and OER initiatives. By drawing on examples of library initiatives across the United States, the author illustrates how libraries are facilitating the adoption and implementation of these affordable resources.

Introduction

Open access textbooks (OATs) and open educational resources (OERs) are being lauded as affordable alternatives to costly print textbooks. OERs are born digital content made available for free or for a nominal fee in a range of formats, including textbooks, games, media, and instructional readings (Adamich, 2011, p. 10). OATs are freely available online (Christopher, 2008, p.13) and can be used in learning management systems (LMS) and accessed multiple times across various devices by an unlimited number of simultaneous users (Morris-Babb & Henderson, 2012, p. 151). OATs can be shared and its content mixed and repurposed by authors and users (Orange Grove, n.d.). Authors of OER materials maintain the rights to their work and use Creative Commons licensing terms or a similar type of agreement to share them.

OERs are gathering steam as textbook prices have been increasing exponentially over the past two decades, placing a heavy financial burden on students. According to the Student Public Interest Research Groups (PIRGs), students pay on average $1,168 on textbooks and other course materials per year (Student PIRGs, n.d.a). Textbook prices have been increasing more than four times the rate of inflation (Student PIRGs, n.d.b). For community college students, textbooks can constitute up to 75% of the total cost of their education, and books are typically not covered by financial aid (Peek, 2012, p. 26). Open and free educational resources are considered to be a possible solution to the textbook affordability crisis.

The textbook affordability crisis developed over a period of time. Before the crisis, bookstores and financial aid offices worked together to help students to purchase course texts before student loans were received (Acker, 2011). Bookstores served to support students; they “had characteristics of a cost center (like a library or advising unit), rather than […] a profit center that contributed to the coffers of the university” (Acker, 2011, p. 42). During this time, textbooks were being updated every three to four years and price increases were moderate (Acker, 2011, p. 42). By the mid-1980s, however, all this changed. Independent bookstores became affiliates of large national chains such as Barnes & Noble. With this shift, writes Acker (2011), campus bookstores sought to profit from students rather than serve their academic needs. Used books then became more attractive to students, sparking the used textbook craze (Acker, 2011). The used textbook industry profited heavily from this as they incur no production costs and have no authors to pay (Hull & Lennie, 2010). Hull and Lennie (2010) point out that the savings gained from purchasing used textbooks is ultimately deceptive; textbook publishers in turn create newer, more expensive editions to cover their losses. Textbook publishers have also shortened the revision cycle to undermine the used textbook market (Acker, 2011, p. 43) and have
targeted professors by providing them with free textbooks or incentives for adopting their titles (Belliston, 2009, p. 284). As well, publishers are “bundling” additional CDs and workbooks to increase prices (Christopher, 2008, p. 11).

Colleges are partially responsible for this crisis. Many colleges have been standardizing courses and learning outcomes to facilitate student transfer between schools, a shift that lends itself to textbook teaching and learning (Acker, 2011). Colleges have also been hiring adjuncts and graduate students to replace more expensive full-time tenure-track faculty, requiring them to teach larger classes, which are easily taught using textbooks (Acker, 2011). Increases in class size have also raised the stakes for publishers, prompting them to ramp up their marketing costs and efforts (Acker, 2011).

With textbook costs rising, students are finding other means to procure course texts. They are sharing or pirating textbooks or not purchasing them at all (Raschke & Shanks, 2011, p. 53). Some are acquiring cheaper international editions through Amazon or eBay (Parry, 2013). Others are using Facebook or craigslist to find used editions (Parry, 2013). Students are using a growing number of textbook rental programs offered by their campus bookstore or vendors such as Chegg, BookRenter, CampusBookRentals, and Amazon (Parry, 2013). Students are also delaying their textbook purchases to determine the extent to which a title is used in class (Reynolds, 2011, pp. 180-181).

The increasing cost of textbooks is impacting students academically as well. According to Raschke and Shanks (2011, p. 53), many students are unable to complete college because of the cost of textbooks and related fees. Textbook prices are also influencing in which classes students choose to enroll (Parry, 2013). A 2010 study conducted by the Florida Distance Learning Consortium (FDLC) involving 14,221 students across universities and colleges in Florida found that more than 23% of respondents occasionally did not register for a course or a section because of the cost of the course textbook (Morris-Babb & Henderson, 2012, p. 150). The study also revealed that 10.6% of respondents withdrew from a course and 7.2% “frequently or occasionally” failed a course because they could not afford the course text (Morris-Babb & Henderson, 2012, p. 150).

Governments are responding to the crisis by drafting and enacting textbook laws. The federal Higher Education Opportunity Act (HEOA) of 2008 includes three textbook provisions (Student PIRGS, n.d.b):

1. Publishers are required to disclose the textbook price and list revisions to faculty.
2. Publishers must separate/unbundle supplemental materials.
3. Colleges are asked to give students the name of assigned course textbooks at the time of registration.

HEOA went into effect on July 1, 2010. Another proposed federal law (H.R. 1464, 2009) ambitiously required specific federal agencies to help develop open source textbooks. This law was never passed. Thirty-nine states have passed similar textbook legislation (Morris-Babb & Henderson, 2012, p. 148). Some statutes require teaching faculty to select their texts early and to post ISBNs at least 30 days before classes begin, which gives students the time to comparison shop (Morris-Babb & Henderson, 2012, p. 148). The Florida State textbook legislation requires instructors or departments to confirm that the assigned readings will actually be used in class, ensure that they have a policy to address the needs of students who cannot afford required texts, and confirm the degree to which the newer edition of a text differs from the older edition (Morris-Babb & Henderson, 2012, p. 149). In 2009 the Florida state government
also instructed the Florida Distance Learning Consortium (FDLC) to “work with university and college systems to promote and increase the use of open-access textbooks” (Morris-Babb & Henderson, 2012, p. 149). Recently, California Governor Jerry Brown signed two bills into law: one to create the California Digital Open Source Library to host open source electronic textbooks and the second to create the California Open Education Resources Council, comprising faculty members who will help develop open source textbooks (McGreevy, 2012; Azevedo, 2013). The Washington State government has funded the Open Course Library, which provides college materials online for $30 or less per class (Reynolds, 2011, p. 182). The initiative was introduced not only to reduce the cost of education, but to also increase college completion rates (Reynolds, 2011, p. 182). While these textbook laws and initiatives are a breakthrough, Scola reminds us that with HEOA, in particular, there is “no real enforcement provisions” (Scola, 2013). Without enforcement, these textbook provisions and requirements are lofty ideals that may not come to fruition. Academic libraries recognize this and have intervened in the textbook affordability crisis.

Library Initiatives and Intervention
Historically an advocate for access to information and a key campus player in student learning, academic libraries are a natural partner in OER initiatives and a potentially powerful voice for more affordable learning resources. Libraries have long been providing access to learning materials through reserve collections and services (Massis, 2013). Miriam Deutch, a library faculty member at Brooklyn College, describes librarians as “eager allies” in the textbook affordability struggle as their involvement “reflects libraries’ enduring roles as crafters of academic collections” and preservers of resources (Scola, 2013). Metz-Wiseman (2012) affirms the crucial role that librarians play in providing access to textbooks by citing their knowledge of licensing issues, authentication methods, copyright provisions, evaluating sources, and student preferences. Peek (2012) points out that in many ways the textbook affordability crisis mirrors the journal crisis—a crisis that is all too familiar among librarians. Librarians responded to the journal crisis in a number of ways with some becoming involved with the open access movement. It is with this same concern with affordability and access to knowledge that librarians have become involved with OER initiatives.

Academic libraries are using their skills and strengths to support, promote, and even cultivate and create OERs. This section describes, based on a review of the literature, how academic libraries across the United States are involved in OER initiatives. These initiatives can be broadly categorized into the following areas: advocacy, promotion, and discovery; evaluation, collection, preservation, and access; curation and facilitation; and funding. This is by no means an exhaustive description and analysis of current initiatives. This paper instead consolidates existing reports of library activities and brings them together to shed light on how libraries can address the textbook affordability crisis by becoming involved with OER initiatives.

Advocacy, Promotion, and Discovery
Several academic libraries are advocating for, promoting, and facilitating the discovery of OER materials. Scola (2013) writes that because librarians are consistently in contact with students and are aware of service issues and needs, such as long lines at reserve desks, it is not surprising that librarians have been addressing the textbook affordability crisis by advocating for more affordable learning materials and OERs. As well, the library’s “advocacy role has largely been determined by the historic role of the library in the scholarly communication cycle—one of collecting, preserving, and brokering access to large quantities of scholarly information on behalf of an academic community” (Raschke & Shanks, 2011, p. 52). North Carolina State University Libraries adopted this traditional role as advocates and information providers by promoting new textbook models as part of their curricular resource strategy (Raschke & Shanks,
They created a website about the rising cost of textbooks (no longer available) and promoted open access textbooks and scholarship. Other libraries such as the University of Massachusetts (UMass) at Amherst Libraries and Wayne State University Libraries are also creating guides to OERs and OATs, providing links to repositories and providers. The UMass at Amherst Libraries guide describes their unique Open Education Initiative which encourages teaching faculty to adopt open textbooks. Gerry McKiernan, a librarian at Iowa State University Library, maintains an extensive OATs guide and frequently speaks about open access issues at conferences.

Libraries are also banding together to advance the OER cause. The Community College Consortium for Open Educational Resources (CCCOER), composed of 150 member colleges including technical and community colleges, promotes OER adoption to enhance teaching and learning. They offer faculty development webinars and other educational and awareness building tools. In February 2013, they organized a webinar that demonstrated the key role that librarians play in OER adoption. The webinar featured Angela Secrest, a librarian at Houston Community College (HCC) Libraries. Secrest illustrated how librarians can help faculty find high quality OERs, a task which is often challenging and time consuming. At HCC, Secrest created a guide to OERs with a custom search widget for OER repositories and free ebooks (Secrest, 2013). The guide also lists open courses and media. Secrest seeks to increase access to and discovery of OATs through a work-in-progress OER portal. She has also been organizing workshops to promote OATs adoption. CCCOER provides further details on their upcoming webinars and training sessions on its website oerconsortium.org.

Evaluation, Collection, Preservation and Access
Skilled in evaluating, collecting, preserving, and maintaining access to resources, academic libraries extend these skills and services to OER initiatives. Shireen Deboo, a district librarian at Seattle Community Colleges, worked with faculty to locate, develop, and curate open content for the Washington State Community and Technical College’s Open Course Library (Deboo, 2013). The Open Course Library (OCL) is a state-wide project that aims to create 81 online college courses using open access materials (Deboo, 2013). Five librarians have been involved with the project. They have been tasked with finding open access textbooks and materials and determining the copyright status of non-open access content found on the web (Deboo, 2013). Librarians at the University of South Florida (USF) Libraries have been supporting USF’s institutional repository, which includes open access textbooks. In her newly created position as associate university librarian for publishing at the University of Michigan Library, Maria Bonn and the University of Michigan Library have been making faculty publications—for which faculty possess the copyright to—available in print and digitally (Bonn, 2011). Bonn and the library also support the university’s open access repository known as Open.Michigan (http://open.umich.edu). Academic libraries are extending their skills in evaluating, collecting, preserving, and maintaining materials to OER collections.

Curate, Create and Facilitate
Libraries are also involved in facilitating the curation and creation of OERs and OATs. Robert Montoya, operations manager of the University of California Los Angeles (UCLA) Charles E. Young Research Library’s Department of Special Collections, worked with a first-year course to use Special Collections materials and to develop OERs (Miller & Montoya, 2013). At Paradise Valley Community College in Arizona, librarians Sheila Afnan-Manns and Kande Mickelson (2013) worked closely with an international business class to curate OERs and create blended course packs that combined OER materials with content from library databases. In the process of searching for and evaluating OER content, Afnan-Manns and Mickelson (2013) taught students information literacy skills to help them find relevant and credible OER materials. The
University of California Berkeley Libraries have also been teaching faculty members how to develop “clickable syllabi” using library resources and other materials (Metz-Wiseman, 2012). Through information literacy instruction and collaborative relationships with teaching faculty, academic librarians are involved in facilitating the creation and curation of OERs.

**Funding**

Although OERs and OATs are free for students and others to use, libraries are aware of the costs associated with producing and maintaining open access materials. As a result, some libraries are involved in funding OER projects. Morris-Babb and Henderson (2012, p. 152) remind us that funding and incentives, such as release time, are required to create OERs. Other sources of funding have included the State of Ohio, which offered grants of $50,000 to authors (Morris-Babb & Henderson, 2012, p. 152), the Bill and Melinda Gates Foundation (Azevedo, 2013), and the Saylor Foundation (Hane, 2011). Taking on an active role in publishing open access materials, libraries are also providing funding and other incentives. North Carolina State University Libraries collaborated with the physics department to host faculty-written textbooks and provided funding (Raschke & Shanks, 2011, p. 54). At Temple University, Associate University Librarian Steven Bell piloted an alternative textbook project which provided grants to faculty to create digital learning materials (Jelesiewicz, 2012). The State University of New York launched its Open SUNY Textbook Program in 2013 (opensuny.org/omp/index.php/SUNYOpenTextbooks). With library funding and support, SUNY’s program will produce 15 free online textbooks in 2013 (C. Oberlander, email list communication, January 15, 2013). Committed to providing access to open learning materials, some libraries have taken on the task of securing and distributing writing grants and other incentives to make OERs more readily available.

**Discussion**

These examples of library involvement in OER initiatives in the United States reflect initiatives on a more global scale. A survey of institutions around the world conducted by Bueno-de-la-Fuente, Robertson, and Boon (2012) revealed that library involvement in OER initiatives was largely concerned with the description, classification, management, preservation, dissemination, and promotion of OER materials. Most of the survey respondents (81.3%) represented institutions in higher education, and most OER projects (75%) relied on the institution’s library (Bueno-de-la-Fuente, Robertson, & Boon, 2012). Similar to Bueno-de-la-Fuente et al.’s results, this study found a number of libraries promoting OERs through LibGuides, webinars, and dedicated web pages detailing the textbook affordability crisis and open access options. As well, libraries in the United States are creating repositories for OER materials. Differing from the international survey’s findings, however, American libraries are also involved in funding OER projects and even curating and creating them. This might be a result of the gravity of the textbook affordability problem in the United States and the ways in which resources have been allocated to colleges and universities in the aftermath of the economic crisis of 2008.

Library involvement in funding, curation, and creation of OER materials in the United States may be part of a new and growing trend of what some are calling “library publishing” (Howard, 2013). Amherst College librarian Bryn Geffert is initiating a library-driven publishing venture committed to open access (Howard, 2013). There is already an organization known as the Library Publishing Coalition, currently composed of 54 academic libraries, that is involved in publishing (Howard, 2013). These library-based publishing initiatives include activities such as “digitizing conference papers or scholarly reports, adding metadata” and publishing them online (Howard, 2013). Library involvement in OER initiatives can be understood within this larger growing movement of libraries involved in publishing as a means to address the rising costs of serials, textbooks and other publications.
Although OERs seem to be the perfect solution to high cost textbooks, some have cautioned libraries to be critical of and careful about pushing a singularly OER solution. Ovadia (2011, p. 55) warns libraries to be aware of the literature on student preferences for electronic versus print books: “... the technology and concepts are still very new and require teaching, training, and conversations on campuses before the idea can be considered fully ready to push out across colleges and universities.” Ovadia (2011) also advises librarians to test the usability of open access electronic textbooks, ensuring that they are usable on different browsers and readers. Various studies have examined student preferences and academic performance comparing print versus electronic textbooks. These studies have shown that students prefer print over electronic textbooks (Belliston, 2009; Chen, 2012; “Over a third ...,” 2012; Woody, Daniel, & Baker, 2010). However, Parry (2013), reporting on a Book Industry Study Group survey, notes that the number of surveyed students who prefer print textbooks has decreased from 75% in fall 2011 to 59% in fall 2012. Studies examining student academic performance using print versus electronic textbooks have generally found that student performance is the same for both mediums (Rockinson-Szapkiw, Courduff, Carter, & Bennett, 2013; Shepperd, Grace, & Koch, 2008; Weisberg, 2011). Hilton III and Laman (2012), however, found that students performed better with etextbooks. Despite these differing learning results, students have clearly articulated what features they want from electronic textbooks: they want the ability to print, annotate, highlight, share, and bookmark pages (Morris-Babb & Henderson, 2012; Oliveira, 2012). They also want the ability to search text, download electronic textbooks onto readers, and have unlimited access to texts for different devices (Morris-Babb & Henderson, 2012; Oliveira, 2012).

Teaching faculty preferences and needs are also part of the OER adoption equation. Harley, Lawrence, Acord, and Dixson (2010) asked teaching faculty questions about their perceptions of textbook affordability and open access textbooks. Their study found that faculty members want a diverse range of textbook choices and would like to easily find information on open textbooks. Teaching faculty believe that the selection of open access textbooks is limited in their fields and may not be a viable, balanced, high quality, and trustworthy alternative to print textbooks (Harley et al., 2010). Faculty suggested incentives for writing open access textbooks such as paid leave, recognition through promotion, sabbaticals, and credit for creating OATs. Teaching faculty are not receptive to a top-down, one size fits all approach to the textbook affordability problem; they want to easily locate high-quality course materials that meet “their and their students’ pedagogical needs in an affordable discipline-appropriate manner” (Harley et al., 2010, p. 4). Library efforts to organize, review, and make OERs more findable can address some of these concerns raised by faculty. Collaborative initiatives among librarians and teaching faculty, such as the initiative at Paradise Valley Community College by librarians Sheila Afnan-Manns and Kande Mickelson, may be one effective way to address the needs and concerns of teaching faculty.

In addition to student and faculty concerns, there are other challenges to promoting and supporting OER initiatives. Deboo’s (2013) work with the Open Course Library initiative and Afnan-Manns and Mickelson’s (2013) involvement with an international business class demonstrate the additional time required of librarians to curate and create OERs. Departmental support for and faculty willingness to collaborate on OER projects are also potential hurdles. These issues, however, are not new to libraries engaged in other innovative and culturally disruptive services and technologies. If library involvement in the larger open access movement and serials crisis is any indication of the library’s crucial and effective role in changing the way publishing is imagined, then librarians can work through these obstacles to further OER initiatives.
Several questions remain about the future direction of OER initiatives. For example, should these initiatives be coordinated on a national or even international basis? Certainly, proposed federal legislation on open source textbooks demonstrates a national interest in OER. As well, the work of the Community College Consortium for Open Educational Resources is also building bridges and a national movement. However, state-wide initiatives might be more effective in meeting regional needs and funding formulas as illustrated earlier with initiatives in Florida, California, and Washington State. Assessment of the impact and value of OERs have focused on course-by-course performance and student preferences for print versus electronic course texts. Larger and longitudinal studies of the impact of OERs on student learning outcomes are needed. The future of OERs remains wide open and full of possibilities.

Conclusion
Academic libraries have a crucial and strategic role to play in the OER movement. They are using their skills and strengths to support, promote and even cultivate and create OERs. The diversity of library initiatives examined in this article illustrates how libraries can address the textbook affordability crisis by supporting no-cost or low-cost textbook alternatives. However, OERs may not be the only answer to the textbook affordability crisis. Student preferences for either print or digital learning materials are an important factor in OER adoption. Teaching faculty also need support in finding appropriate low-cost course materials. There is also a learning curve for faculty who adopt online learning texts and tools. Academic libraries are already skilled at and steeped in advocacy work for fair and open access. They promote, evaluate, preserve, curate, and maintain access to collections. They are immersed in budget and funding issues and concerns. These are skills and experiences that make academic librarians crucial advocates of OERs as they try to make course texts—and above all education—more affordable and accessible.

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Student PIRGs. (n.d.a). Make textbooks affordable campaign. Retrieved from ww.studentpirgs.org/textbooks/about


**Appendix: Selected Open Source Sites**

**Affordable Learning Solutions**

http://als.csuprojects.org

Affordable Learning Solutions (ALS) is a campaign by California State University to help faculty find high quality, affordable educational content. The ALS site, launched in 2010, links to the MERLOT OER library. The site also features a database of free course materials, which is searchable by ISBN or a topic. It lists universities that provide free access to their courses and sites with free electronic textbooks. It also includes a tab devoted to library resources and a tab which explains how authors can customize content.

**Bookboon**
http://bookboon.com/en
Created by a Danish publishing company in 2005, Bookboon provides over 800 open access textbooks and other titles. Up to 15% of the content of their books contain advertisements.

Boundless
www.boundless.com
Boundless creates textbooks from existing free content found online. The textbooks are vetted and curated by their team of subject experts.

College Open Textbooks
www.collegeopentextbooks.org
College Open Textbooks has more than 100 peer-reviewed open textbooks for community college courses. The site was created by the Community College Open Textbooks Collaborative which is funded by the William and Flora Hewlett Foundation. The collaborative comprises “sixteen educational nonprofit and for-profit organizations, affiliated with more than 200 colleges.”

Community College Consortium for Open Educational Resources (CCCOER)
http://oerconsortium.org/
The mission of CCCOER is to increase access to education “by promoting awareness and adoption of Open Educational Resources (OER).” It is composed of more than 100 colleges and provides resources and webinars to support OER adoption.

Connexions (Rice University)
http://cnx.org/
A nonprofit entity established in 1999 by Rice University, Connexions includes a repository of open educational materials and a content management system which delivers educational texts. The content is modular, allowing users to mix, copy, combine and create content. It contains more than 17,000 modules or “learning objects” and has over 100 textbooks, journal articles and more. Users can save their own modules. Its peer-review system is based on ratings by teachers or organizations.

Digital Textbook Initiative (California Learning Resource Network)
www.clrn.org/fdti/
Provides a list of open educational resources.

Flatworld Knowledge
http://catalog.flatworldknowledge.com/
This site offers more than 100 customizable textbooks across a range of disciplines. More than 2,500 universities around the world use these textbooks. The texts are peer-reviewed and written by notable professors. Textbooks include social learning features such as chat and note-sharing capabilities. For the last five years, Flat World Knowledge’s business model was based on offering free online access to textbooks, charging students for print copies of a text. Since January 2013, however, Flat World introduced an online access fee of about $20 (Azevedo, 2013).

Global Textbook Project
http://globaltext.terry.uga.edu/
Based at the University of Georgia, this site provides free textbooks in formats that are not device-specific or software dependent. Intended for use around the world.
Hewlett Foundation
www.hewlett.org/oer
Since 2006, the Hewlett Foundation has been funding OER projects that “improve education globally by making high-quality academic materials openly available on the Internet.”

MERLOT (Multimedia Educational Resource for Learning and Online Teaching)
www.merlot.org
MERLOT contains more than 40,000 peer reviewed texts. It is “a free and open online community of resources designed primarily for faculty, staff and students of higher education from around the world to share their learning materials and pedagogy.” MERLOT was created in 1997 and is based at the California State University. In addition to textbooks, it offers learning tutorials, quizzes, case studies and more.

OER Commons
www.oercommons.org
Provides training, support services, and OER materials.

Open College Textbooks
www.opencollegetextbooks.org
A repository of open access textbooks that can be downloaded for free or printed for a fee.

Open Course Ware
http://ocw.mit.edu
Open Course Ware “is a web-based publication of virtually all MIT course content.” It includes lectures, tutorials and assignments.

OpenCourseWare Consortium
www.ocwconsortium.org
The consortium is comprised of hundreds of higher education institutions around the world. OpenCourseWare (OCW) is defined as “a free and open digital publication of high quality educational materials for colleges and universities.” These materials are organized into courses and include course planning materials, evaluation tools and thematic content.

Open Knowledge Foundation
http://okfn.org/
Based in the United Kingdom, this nonprofit organization was established in 2004. It is “dedicated to promoting open data and open content in all their forms—including government data, publicly funded research and public domain cultural content.”

OpenStax: Has OER authoring tools
http://openstaxcollege.org/
This site provides free peer-reviewed texts and a low-fee printing service.

OpenTextBookStore
www.opentextbookstore.com
Created by educators who wanted easy-to-find open textbooks for their classes. Contributors provide a short list of books that can be readily used in a college course.

Orange Grove
http://florida.theorangegrove.org/og/access/home.do
Orange Grove “is Florida’s digital repository for instructional resources.” Educators can search for teaching resources and remix, share and contribute content. These materials can also be used within a learning management system such as Blackboard.

**Saylor Foundation**  
[www.saylor.org](http://www.saylor.org)  
A nonprofit based in Washington, D.C., devoted to making education free. It provides free courses currently at the undergraduate level and OERs for these courses.

**Twenty Million Minds Foundation**  
[http://20mm.org/](http://20mm.org/)  
Provides a tool that allows faculty to mix content and make their own custom texts. They are working with OpenStax, which uses the Connexions platform, to make open access textbooks available.

**WAC Clearinghouse**  
[http://wac.colostate.edu/index.cfm](http://wac.colostate.edu/index.cfm)  
The Writing Across the Curriculum (WAC) Clearinghouse “publishes journals, books, and other resources for teachers who use writing in their courses.” For the last 15 years, WAC has been publishing open access learning materials.