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Open Educational Resources

Creating the instruction commons

Open Educational Resources (OER) were the topic of the ACRL-SPARC Forum at the ALA Midwinter Meeting in January. David Wiley (associate professor of instructional psychology and technology at Brigham Young University and chief openness of cer of Flat World Knowledge[1]) opened the panel portion of the forum.

Wiley was followed by Richard Baraniuk (founder of Connexions[2] and professor of electrical and computer engineering at Rice University). Nicole Allen (The Student PIRGs [Public Interest Research Groups] Make Textbooks Affordable project[3]), then gave the student perspective. Mark Nelson (digital content strategist for the National Association of College Stores [NACS][4]) concluded the panel presentations before questions were taken from the audience.

A significant barrier to students

All four panelists spoke to the cost of textbooks the basic classroom educational resource. According to research by the Advisory Committee on Student Financial Assistance, textbook costs are a signi cant barrier that keep some enrolled students from being able to continue their studies and some potential students from enrolling in the rst place.[5] The average college student spends around $900 per year on textbooks.[6] From 1994 to 2003, the rate of textbook price in ation averaged more than four times the rate of general price in ation.[7]

Textbook publishers employ a variety of strategies that compound the problem of high cost by ensuring that the market for used texts is as small as possible. These strategies include regularly releasing new editions; bundling frequently unneeded consumables and other ancillary items with the text; customizing textbooks to particular campuses or even sections of courses; and charging higher prices in the United States than abroad.[8] Most current commercial digital textbooks include expirations, which means that students have absolutely no use for the material after the expiration date.[9] This effectively means that students who purchase such a text actually only rent it.

Publishers have gotten away with high prices and restrictive practices like those described above because they enjoy an arti cial market. Most manufacturers market their products to the end user who makes the decision to buy or not. Textbook publishers do not market to, nor are they accountable to, the student consumer. Publishers market to and are accountable to the professor who decides which text the students must use. Professors routinely receive complimentary copies (and perhaps other incentives to select a particular textbook). This only reinforces the arti ciality of the market. Professors simply do not have to pay the price their students pay.

OERs are one means of addressing the high costs for students of this arti cial market. Preston McAfee received SPARC s newest Innovator recognition because he was the rst to publish a complete textbook, *Introduction to Economic Analysis,* and make it openly available online. McAfee s book . . . currently used on campuses from Harvard to New York University . . . is welcome relief for strapped college students who are paying $100 and more for textbooks. [10] For

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$15.20 students can purchase McAfee s book through the print-on-demand site lulu.com.

Three reasons students prefer print

Why would students print out a text that they can read online for free? Mark Nelson shared three reasons, according to NACS survey data. The rst reason many students select a particular format is because their professors use that format. Most professors use a printed text. Second, the current student cohort was raised on print texts. Student PIRGs data show that 60 percent of students with access to a digital text would also like a printed copy, if it was affordable. These preferences might change over time if digital textbooks become more widely used in K 12 education.[11]

Technological factors are the third reason underlying the continued desire for printed textbooks. Some digital textbooks are available only when a student has network access to the publisher s site.[12] While the possibility of such access is increasing on most campuses, it is still not universal. Digital textbooks have yet to be formatted for the cell phone, the portable device students are most fond of. Even dedicated e-book readers such as the Amazon Kindle and Sony s e-Reader are not completely hospitable to digital textbooks. With the present feature sets of these readers, students cannot highlight or annotate a digital textbook like they can a printed textbook. Even the way to search a digital text arguably its greatest advantage over a printed text is not obvious to students.

When speaking about OERs, open means more than just being able to read a textbook online for free. Just as it does with the broader open access movement, open also implies the availability to create derivative works. OERs provide an incredible opportunity not previously offered to professors. Because of the reuse and customization capabilities of OERs, professors can pick and choose from what is available, make needed modi cations, and add content of their own to come up with something that more closely meets the need of a speci c course or even a speci c section of a course. And a printed copy of the result can be produced at a reasonable price for students. Therefore, such OER customization differs materially from the commercial efforts to restrict the used textbook market previously mentioned. OER reuse and customization suggests the possibility that use of a commercial textbook supplemented by course packs may become a thing of the past.

OER opportunities for librarians

The panelists suggested speci c ways in which libraries and librarians can play a bene cial role where OERs are concerned. Taken together, these suggestions mean that we have the power to in uence the creation, the ongoing availability, the perception of credibility, and the adoption and use of OERs. Some of what librarians can do will feel very comfortable. Other possibilities are likely to stretch us.

Librarians, whose ranks are lled with specialists and experts in a variety of elds, can be contributors to the open educational commons by creating OERs themselves. A librarian need not write an entire textbook to contribute in this way. Librarians routinely teach information literacy sessions and may have developed materials for such teaching. As OERs, these materials have the potential to be invaluable to professors and students far beyond a creator s own institution. They may well provide the side bene t of helping us make progress on the road to true course-integrated instruction.

We should be aware that professorial faculty at our institutions may author OERs, as well. They might do so on their own or with the assistance of a specialized center (e.g., BYU s Center for Teaching and Learning) charged with assisting faculty with their teaching responsibilities, including helping them create appropriate instructional materials. Librarians can take the lead in educating the instructional designers who work in these centers about the existence and creation of OERs.

As with other faculty publications, OERs created by individual faculty, or with the assistance of a teaching and learning center, will undoubtedly be of ongoing interest to our institutions. Accordingly, librarians should work to archive faculty-authored OERs in our institutional repositories and, if appropriate, in our physical libraries when print equivalents exist.

Both Wiley and Allen suggested that librarian expertise directed to indexing OERs both those created by our own faculty and by others is a valuable activity. *C&RL News* and other library publications routinely carry lists of excellent Web-accessible resources. OERs could be highlighted in such publications. Just as some librarians do with new book and database noti cations, we can also proactively make our faculty aware of new OERs of potential interest. Academic library Web sites typically have a variety of subject resource pages created by subject librarians. OERs can be included on such pages and/or highlighted on pages devoted strictly to this type of resource.

As a traditional collection development function, indexing OERs in the manner described speaks to issues of quality. The same red herrings that have been raised about open access in general (i.e., the lack of peer review and editorial control) have also been raised with respect to OERs. By its very nature, collection development entails evaluation resulting in the selection of quality materials relevant to the needs of a library s patrons. Evaluation for selection of quality OERs will show that not everything purporting to be a quality OER actually is a quality OER. However, just because an OER is openly available on the Web does not mean that it is of poor quality or that it has not been subjected to any quality checks. Baraniuk suggested that librarians should be as comfortable applying their collection development skills to evaluating OERs as they are with other Web-accessible resources.

Librarians who teach can make quality OERs a part of their instruction. Many librarians teach as part of information literacy instruction programs; some teach full courses; others do both. Some librarians teach on their own; others are part of a teaching team either with other librarians or with professorial faculty. Regardless of circumstance, teaching librarians can adopt, or suggest the adoption of, an OER textbook for their courses. If no suitable text exists (because of either subject treatment or excessive price), they can, as already suggested, write or mix their own textbook. Or if the decision is made to use a commercially published textbook, teaching librarians can suggest the use of relevant OER modules or lessons where these would be appropriate.

Research articles are frequently selected for inclusion in course packs. Open access articles whether published in an open access journal or available in an open access institutional or disciplinary repository become OERs when used as teaching and learning materials.

OER adoption and use can be in uenced by policy. The open educational commons could bene t greatly if every campus teaching and learning center operated under a policy that all of its products would be released under an appropriate Creative Commons license.[13] Under such a policy, these products would themselves become OERs. Wiley suggested that rather than appearing *ex nihilo,* such policies will only be adopted if librarians and others become actively involved in campus discussions about intellectual property.

Even if such policies covering teaching center products are adopted, some faculty will create useful OERs of high quality on their own. These OERs enjoy the same copyright protection as the books or scholarly articles that faculty members author. In order to make their personally created OERs accessible to anyone, faculty members must make this accessibility explicit. Wiley suggested that individual faculty use the Creative Commons Attribution license,[14] though he recognized there are times when organizations may prefer the Creative Commons Attribution Non-commercial Share Alike license[15] used on all materials at Flat World Knowledge.

Baraniuk mentioned two roadblocks creating problems in the OER arena. The rst is the lack of an agreed upon intellectual property standard. Not all OER creators or sites use the same license. As mentioned, Flat World Knowledge materials use the Attribution Non-commercial Share Alike license. OERs at MIT s OpenCourseware site[16] use the same license. Those at Connexions use the Attribution Creative Commons license.[17] If all OER creators use a similar license, then mashups (i.e., new OERs created from more than one existing OER) will not run into problems since all of the constitu-

ent OERs permit the same uses. The lack of technical standards is the second roadblock. It is dif cult to remix existing OERs when one is a PowerPoint le and another is a PDF of a PowerPoint.

OERs join the other opens Open Access, Open Source, Open Data, Open Science in creating a more robust and useful open commons. They hold the promise of making education at all levels, but especially higher education, more affordable. OERs are more in tune with the movement to greater accountability (i.e., providing a better return on investment), which is de nitely a trend in higher ed. Librarians can help by contributing their own OERs to the commons; screening for, indexing, and archiving quality OERs; using OERs in their own teaching; and participating in discussions leading toward responsible intellectual property policies and useful standards.

Notes

1. Flat World Knowledge, www.atworldknowledge.com.

2. Connexions, cnx.org.

3. Make Textbooks Affordable project, www.maketextbooksaffordable.org,

4. National Association of College Stores, www.nacs.org.

5. Advisory Committee on Student Financial Assistance, *Turn the Page: Making College Textbooks More Affordable* (Washington, D.C.: ACSFA, 2007), 9, www.ed.gov/about/bdscomm/list/acsfa/turnthepage.pdf.

6. State Public Interest Research Groups, *Ripoff 101: How The Publishing Industry's Practices Needlessly Drive Up Textbook Costs,* 2nd ed., (Washington, D.C.: State PIRGs, 2005), 4, www.maketextbooksaffordable.org/ripoff_2005.pdf.

7. Ibid., 7.

8. Ibid., 7 9.

9. Nicole Allen, *Course Correction: How Digital Textbooks Are Off Track, And How to Set Them Straight* (Chicago, IL: The Student PIRGs, 2008), 5, www.maketextbooksaffordable.org/course_correction.pdf.

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to the collection, with suf cient terminals in the CMC.

II. Indexes for uncataloged items The CMC shall have indexes, preferably electronic, to access noncataloged items (e.g., curriculum guides on micro che, etc.).

Assessment

The CMC should have a plan in place for evaluating the achievement of its mission and goals.

I. Plan The plan should focus on how well the CMC is meeting its goals and objectives relative to its collection, administration, facilities, and service.

II. Frequency The evaluation should take place on a periodic basis.

III. Methodology The method used could be accomplished through focus groups, surveys, questionnaires, or other evaluation strategies and should include participation by all user groups. (See Appendix I)

IV. Resources A variety of published materials related to the management of CMCs are available and should be consulted regularly. (See Appendix II)

V. Results The results of the evaluation should be recorded and used in reviewing the viability of the current goals and objectives with changes being made where appropriate.

Appendix I

Adequate and appropriate documentation is vitally important to evaluation of the CMC. Following are examples of types of documentation that may be gathered to show compliance with the guidelines.

I. Budget reports
II. Calendars
III. Collection development policy
IV. Floor plans
V. Inventories
VI. Policies and procedures
VII. Publication examples (handouts/ bibliographies/path nders)
VIII. Publicity materials
IX. Schedules
X. Statistics
  a. Reference statistics
  b. User statistics
  c. Usage statistics
XI. Web sites

Appendix II

Bibliography of resources that are recommended for consultation by CMC directors.

Carr, J. (Ed.). (2001). *A guide to the management of curriculum materials centers for the 21st century: The promise and the challenge.* Chicago: IL: Association of College and Research Libraries, American Library Association.

Curriculum Materials Committee of the Education and Behavioral Sciences Section. (2007). *A guide to writing CMC collection development policies.* Chicago, IL: Association of College and Research Libraries, American Library Association. Retrieved from www.ala.org/ala/mgrps/divs/acrl/acrlpubs/downloadables/guidetowritingcmc.pdf.

Lare, G. (2004). *Acquiring and organizing curriculum materials: A guide and directory of resources.* (2nd Ed.). Lanham, MD: Scarecrow Press.

Olive, F. (Ed.) (2001). *Directory of curriculum materials centers.* Association of College and Research Libraries, American Library Association. Retrieved fromacrl.telusys.com/cmc/index (New edition forthcoming.)

("OERs" continues from page 287)

10. Scholarly Publishing and Academic Resources Coalition, Preston McAfee named newest SPARC innovator, dianahacker.com/resdoc/p04_c10_s2.html#21.

11. Allen, 9 10.

12. Ibid., 5 and 10.

13. Creative Commons, creativecommons.org.

14. Creative Commons Attribution license, creativecommons.org/licenses/by /3.0/.

15. Creative Commons Attribution Non-commercial Share Alike license creativecommons.org/licenses/by-nc-sa/3.0/.

16. MIT s OpenCourseware site, ocw.mit.edu/OcwWeb/web/terms/terms/index.htm#cc.

17. Connexions use the Attribution, Creative Commons, licensecreativecommons.org/licenses/by/2.0.