Power Up!

Open Educational Resources: On the Web and Free

Last year, our state, Minnesota, issued new social studies standards. One of the consequences of this change was that our school district could find no suitable textbooks that covered the new topics that were now required. At the same time, two initiatives were at work at the district level. First, our teaching and learning department began an effort to move teachers away from textbook-based curriculum content and toward standards-based instruction and assessment instead. And second, we began to pilot a 1:1 tablet program at the middle school level.

This perfect storm of change made it the right time to begin increasing our use of technology to design curriculum and to access instructional resources. We're therefore moving away from our traditional reliance on the textbook and toward providing more online teaching and learning materials through our content management system, Moodle.

In Search of Resources
Moodle (http://moodle.org) is a free application that educators can use to create online learning sites. Because our teachers had gained familiarity with Moodle in some of their staff development activities, they easily learned the mechanics of setting up courses, organizing units, adding learning activities, and creating assessments. What was more complicated—and remains an ongoing challenge—was finding instructional resources to populate the courses. Although both our district and our state provide high-quality commercial materials (including e-books, full-text magazine indices, and educational videos), these were insufficient to meet teachers' course needs.

Happily, our teachers, librarians, and teaching and learning specialists have found a wealth of excellent materials through open educational resources, also known as OER (Marcinek, 2013). The William and Flora Hewlett Foundation (n.d.), which has been working to spread the creation and use of open educational resources for more than 10 years, defines OER 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 repurposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge.

Where can teachers start learning about and finding open educational resources? Any Google search will turn up countless links, but here are a handful of places our teachers have found particularly helpful.

- OpenEd (www.opened.io) describes itself as “the world's largest educational resource catalog,” currently with more than 250,000 videos, games, and other resources aligned to standards. A teacher designing a course on ancient civilizations, for example, could find videos from the “Crash Course World History” series, such as “Indus Valley Civilization” (www.opened.io/#/resources/337165) and “The Roman Empire, Or Republic, Or... Which Was It?” (www.opened.io/#/resources/370461).

- The Digital Public Library of America (http://dp.la) and the Library of Congress
(www.loc.gov) are fantastic sources of primary materials—including manuscripts, artworks, maps, and sound recordings. For example, at the Library of Congress website, a teacher could find 68 early motion picture clips from the Spanish-American War.

- Gooru (www.goorulearning.org) is "an open and collaborative online community" currently used by more than 400,000 teachers in 140 countries and all 50 U.S. states. This site contains customized collections of "standards-aligned, interactive learning materials that have been curated by fellow teachers." For example, a modern world history course created by teacher "Ms. Brown" has pulled together materials that cover such topics as industrialism, nationalism, imperialism, World War I, World War II, and the Cold War.

- Creative Commons Search (http://search.creativecommons.org) is an especially effective tool for finding copyright-free media. Creators can license their materials on Creative Commons with one of four permission levels; many of the materials can be freely remixed, tweaked, and built upon by anyone, as long as the creator is given credit. Teachers can participate both as content seekers and as content creators.

- CK-12 (www.ck12.org) specializes in "high-quality curated STEM content," with links to more than 15,000 resources.

In addition, a November 2013 article on the Edutopia website, "Open Educational Resources (OER): Resource Roundup" (www.edutopia.org/open-educational-resources-guide) includes an informative introductory video, "Why Open Education Matters"; a discussion of some challenges; a list of blogs about open educational resources; and links to open lesson plans and activities.

**Teachers as Curators**

The term curation has become a popular way to describe the process of selecting, maintaining, and making accessible repositories of useful materials. Effective curation requires the ability to locate materials, to evaluate them for quality and appropriateness, and to consider what reading levels and information formats a collection of materials should include to facilitate effective differentiated instruction (Achieve, 2013). In our district, school librarians are the experts in finding and evaluating open educational resources—and helping teachers learn to do so as well.

If all this sounds like a lot of work—it is. That's why school leaders need to structure the development of online textbooks and online courseware as a collaborative effort. At a basic level, schools can help by creating core sets of materials for specific courses or grade levels, which individual teachers can then customize and use. We’ve found that one effective strategy is to pull together small teams of teachers and assign them to develop such sets of materials for specific units of instruction.

Good digital curriculum materials can and should be much more than just regular textbooks available in PDF format. The growing wealth of open educational resources and the ability to organize them through content management systems makes the standard textbook look positively obsolete.

**Making It Happen**

**What School and District Leaders Can Do**

- Consider replacing textbooks with more flexible and standards-specific digital resources, including course management systems such as Moodle.
- Check to see whether there are statewide initiatives for developing open-source courses or digital textbooks tailored to your local standards.
- Understand the philosophy of open educational resources and promote their use.
- Create intellectual property policies that encourage in-house development of teaching resources. Good board policies will protect the rights of the school district by giving it ownership rights that will remain even should the creator leave the district. Such policies will also give ownership rights to the creators (teachers) for non-district uses (for example, in future teaching positions, in publications, or sharing with colleagues).
- Expect your school librarian to have and share expertise in locating and evaluating open educational resources.

**References**

