Teachers Can Use Free, Open, Online Content

Free online educational content can help schools save money and help teachers create better courses, says Richard Culatta, a specialist in educational innovation.

"Most people are surprised to find out how much good content is available for free," said Culatta, the U.S. Department of Education's deputy director for educational technology. "It's always worth taking the time to see what's available so you're not recreating content that someone else has already made."

"Effective teachers are not only good at creating content, they also know how to find excellent materials for their students," Culatta said. Many websites offer lessons, images, videos and other resources teachers can use to

Top: A kindergarten student, right, points to an item on a laptop computer screen as a fourth grader helps her with an assignment at Gertrude Walker Elementary School in Garden City, Kansas. © *AP Images*

supplement their own materials, build a new course, or provide to students to use outside of class.

Finding Free Educational Resources

Open educational resources (OER) are digital materials in the public domain or licensed under Creative Commons, meaning the creator permits free use with certain restrictions (for example, requiring that the materials be attributed to the original author). The Creative Commons website allows people to license their own materials, as well as search for Creative Commons–licensed works. The Creative Commons site is not limited to educational materials, but many other websites focus only on education, such as Merlot, Connexions and OER Commons.

All U.S. federal government materials are in the public domain. The U.S. Department of Education provides a guide to free materials

at its Federal Resources for Educational Excellence website.

Another resource for teachers is open courseware (OCW) — course materials created by colleges and universities around the world and shared freely online. One of the first to offer open courseware was the Massachusetts Institute of Technology in 2001. Open courseware can include course syllabi, reading lists, PowerPoint presentations, problem sets, lecture notes, exams and videotaped

Mirei Hosono, age 10, uses an iPad in his "English as a second language" class at Center Grove Elementary School in Greenwood, Indiana. © *AP Images*

lectures. There is now a world-wide consortium of more than 250 organizations and institutions of higher education committed to open courseware.

Culatta, a former teacher of Spanish, created a Wikipedia page called Recursos educativos abiertos that lists sites offering free educational materials in Spanish. Among these are Universia and MIT en español.

Classroom-aid.com lists recommended digital resources for the classroom (K–12), including resources in Chinese. MIT's Translated Courses webpage links to materials in Chinese, Spanish,

Portuguese, Thai, Persian and Turkish. Connexions allows people to browse for materials in numerous languages.

The U.S. Department of Education's National Clearinghouse for English Language Acquisition and Doing What Works websites have resources for English-language teachers. There are resources at the U.S. State Department's Materials for Teaching and Learning English and American English Online websites, and the Voice of America offers special broadcasts and materials for learners of English.

A new initiative called the Learning Registry is working to make free educational resources easier to find. The registry facilitates the sharing and searching of educational content located on federal agency and commercial publisher websites, as well as reviews and ratings of that content. It was launched by the U.S. departments of Education and Defense, and the private sector and any other interested parties can participate, Culatta said.

Saving Schools Money

Open educational resources and courseware can save money, Culatta said, because schools typically spend a lot on printed materials. "They can use the money they save by using open resources to get computers into the hands of the kids," he said.

Schools may get help from experts in finding open content, Culatta said, or they may take teachers out of the classroom for a few months

and task them with finding open textbooks and other materials for their courses. "Combining good open content with commercial digital learning tools can still be cheaper than paying for textbooks," he said.

There are many sources of open textbooks, Culatta said, such as the organization Open Text Book and Merlot's open textbook initiative.

If teachers are creating courses using open content, it is helpful to have some training in instructional design, Culatta said. Many institutions offer training; for instance, Indiana University has an online certificate program. An online search on "how to build a course using open educational resources" pulls up thousands of links.

Open educational content is available from many companies and organizations, such as the Kahn Academy; Global SchoolNet; Apple's iTunes U; Google in Education; Intel's Education; and Wikiversity.

Google and Intel were among the corporate sponsors of Digital Learning Day, which was held February 1 to promote innovative teaching and learning through digital media and technology. Among the 2 million students and 18,600 teachers who took part, there were participants from Brazil, Canada, India, Mexico, the Netherlands, Pakistan, Saudi Arabia, Singapore and the United Kingdom. The Digital Learning Day website offers a wealth of material, including a "Toolkits" tab that leads to lessons, project-based learning ideas and other open content for teachers.