

DIGITAL CONTENT: MAKING LEARNING RELEVANT

I have been a principal for eight years, and student engagement—making learning relevant for kids—has always been a primary goal for me. We are using technology to make learning relevant.”

Those words sum up the feelings of Dan Funston, who has been the principal of Lincoln Junior High School in the Plymouth (IN) Community School Corporation (school districts are called school corporations in Indiana) for the past four years. Funston’s commitment to using technology to make learning relevant has led the school’s transformation from a place with computers in a few rooms to one where every student has an Apple MacBook to use in class and to take home. A significant factor in moving to a full one-to-one environment was a change in Indiana state policy that redefined *textbook* to mean not only books but also digital content and the computer software and equipment—computers, netbooks, and the like—to run that digital content. “The change in that rule gave us the confidence and momentum to go forward to one-to-one,” said Funston.

The Indiana policy change started in October 2008, when the state board of education issued its Statement and Action Regarding Social Studies Textbooks, which noted, in part, that the social studies textbooks did not “provide content that is interesting, engaging, and supportive of effective student learning.” On February 6, 2009, the state board, with the state superintendent’s support, sent a letter to school corporations that stated, “You should feel no obligation to utilize the standard form of social studies textbooks.” The board then went on to broaden the state’s definition to allow school corporations to use digital resources, including computers, to deliver curriculum.

The Indiana legislature passed House Bill No. 1429 to codify the definition change in 2011. That same bill also changed the vetting and approval process to give school corporations even more flexibility. In the future, instead of providing a list of approved books, the state will review books and digital content and make those reviews public. The state will not create winners and losers, but instead leave it up to the school corporations to make informed choices about their content.

Indiana isn’t the only state that is changing its policies to give school districts more flexibility in acquiring content. Approximately 15 states have changed laws or policies or have bills pending in state legislatures to redefine *textbooks*. Most of those changes are similar to the approach Indiana took in its new law: a “textbook” is not only a book but also “computers and other data devices, instructional software, Internet resources, interactive, magnetic media, and other systematically organized material.”

Digital content often contains more-current and relevant information than can be found in traditional textbooks.

Resources can be reallocated to support technology when content delivery is flexible.

Open educational resources are changing the teaching culture and the relationship between learning and technology in many schools.



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Big Shifts in Big States

The two states that drive the traditional textbook market—California and Texas—have taken significant strides to provide alternatives to textbooks. In California, then-Governor Schwarzenegger, with the support of the state board of education, implemented the Digital Textbook Initiative in 2009. Brian Bridges, director of the California Learning Resources Network (CLRN), an intermediate agency that reviews software and digital content for its alignment to California’s content standards, explained that a key advantage of digital content is its flexibility to revise and update content to meet standards and accommodate new information. For example, Bridges said that “approximately 20 texts were submitted in the first phase [of acquiring content], but only 4 met 100% of the standards.” In the second phase, 17 were submitted, and, according to Bridges, “What is impressive is that four that had failed to meet the standards the first time were rewritten—3 of them met 100% of the standards and the other was close.” Although it is not clear whether this initiative will continue under Governor Brown, the model has been established in this highly influential state and free, standards-based digital resources have been made available for grades 9–12.

Bridges identified three different directions for digital content in California:

- Free, open educational resources (OER) that are linear and not highly interactive
- Online, web-based interactive content from such sources as Discovery Education Science and the CK-12 Foundation
- Self-contained, interactive content and courses on the iPad.

OER instructional materials are licensed with Creative Commons (CC) licenses that allow users to use the content, modify it, mix it with other content, and republish it according to the type of license. They are usually free. The most common CC license in education is CC-BY, under which the user only has to attribute the original content to the author. The CK-12 Foundation; Curriki, the K–12 open-curriculum community; and one or two other sources provided free and open materials

in science in response to the Digital Textbook Initiative.

Two years ago, the Texas legislature created three alternative paths to the traditional—and arduous—textbook-adoption process established by the state board of education. One pathway allows the state commissioner of education to create a list of approved digital content and approved equipment to run that content. A second path is for the commissioner to call for OER, and the third allows the commissioner to contract for content in a specific subject area and for the state to own the license. The overall intent of the legislation was to provide increased flexibility for school districts and to ensure that materials were more current than textbooks typically are. Legislation passed in the 2011 special session will allow school districts to use textbook money for books, digital content, and computers and other equipment, as well as for professional development and technical support.

Content Influences Culture

The change in content delivery also contributed to a change in culture in Funston’s school with regard to spending, instruction, and curriculum. The first year, Lincoln staff members took advantage of the flexibility offered by the new policy and decided not to adopt new social studies books. Instead, they bought laptops and acquired the necessary content from a variety of places. Although budgets for computers and other equipment had been cut by half over four years, Lincoln staff members found the money for this shift partially by using textbook funds and partially by closely scrutinizing how the school was spending its money. “If you take a close look at how you spend money, you can see how a laptop can replace a number of things,” Funston said. “For example, we had student response systems—clickers—in many classrooms. If every student has a laptop, you don’t need those. We took that rethinking process through our entire budget.”

Rethinking the budget process is a common element among school corporations embracing digital content in Indiana. In the Danville (IN) Community School

Corporation, Brad Fischer, the director of technology, said that Danville is tapping into multiple sources of funding for a project to put iPads into the hands of every high school student. They received some grant funds from the Indiana State Department of Education, but those were primarily for training, and some money from a bond project. “However,” Fischer said, “the conversation quickly shifted to how we were going to sustain the technology-intensive environment, and textbook money jumped to the top.” Danville chose not to purchase new books and to put the money into technology. They also hope to use less and less paper and aggregate other savings because of their increased technology capacity. Finally, they are investigating options for OER and looking at what California did with its Digital Textbook Initiative.

Instruction also changed at Lincoln once the social studies teachers got their laptops. The other teachers saw the things that were happening in the social studies classes—and heard about those activities from students. Teachers from other subject areas began to ask for professional development so that they also could learn how to use technology to change their teaching.

Out of those efforts, an interest in examining the curriculum grew. Funston said, “A lot of secondary school teachers are textbook driven, and now they didn’t have a textbook. That forced all of us to look at all aspects of the curriculum and not just the book.” The second year was focused on math adoption, and the math teachers jumped in, with the science teachers following. “We have grown a ton as a staff,” Funston said. “A lot of teachers will be podcasting lectures and making those available to kids to listen to at any time, while class time will be more focused on project-based learning.”

Other states are making forays into using digital content as well. Virginia was one of the first to create, in conjunction with the CK-12 Foundation, a supplemental text for physics that provided materials on quantum physics and other topics that are undergoing constant change. Maine issued grants under Title IID

(the Enhancing Education Through Technology Act of 2001) and the American Recovery and Reinvestment Act to support teachers in the search for OER across all content areas. A second round of grants in Maine focused on professional development for how to use OER, and the final set of grants will seek to fund the creation of and training in the use of open textbooks. Fischer is very interested in how the efforts in Maine can help his teachers.

At the Federal Level

The federal government is not far behind the leading states. One might expect the National Educational Technology Plan to address digital content and OER, and it does throughout, especially to promote innovation and to save money. But the National Broadband Plan, another major plan put together by the Federal Communications Commission, also has an entire chapter on education that focuses on online learning, data, and educational infrastructure. The chapter offers suggestions regarding digital content in general and OER in particular. For example, one recommendation calls for the federal government to increase the supply of digital educational content.

Policy Is the Catalyst

It is clear that the school corporations in Indiana and school districts across the country are looking for a very different approach to content. Dan Tyree, superintendent of Plymouth Community School Corporation, is clear about what he wants. “A lot of digital curriculum was just a print textbook online. That isn’t what we need. We need something that will change immediately and something low cost. The purpose is to help differentiate lessons, assignments, and assessments,” he said.

Tyree noted the importance of leadership from the top: “Without the change in the definition of a textbook from the state board of education, we could not have thought about the flexibility that kids and teachers crave.” In Indiana, the change in policy has been a catalyst for change in many districts, and according to John Keller, director of learning technologies at the Indiana Department of Education, the



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number of districts making significant changes is growing.

In other states, the change is much slower to come. In Texas, no content has been ordered from the commissioner's list because of the timing and because districts are watching to see whether others are going to use the list. In California, Bridges said the CLRN does not track the use of the content and who is ordering the materials that they review, but adoption has been slow. "At the beginning of a revolution, you typically don't get whole-scale adoption. Some districts are eating around the edges, adopting pilots and trying things out," he said.

Educators across the country have long bemoaned the extent to which Texas and California drive the national textbook market from the content perspective. The policy changes afoot in those states—providing not only more flexibility but also a different business mod-

el—could change that perception from negative to positive. But it may take a while: the speed and extent to which the policy changes will be embraced is not clear for the districts in those states or for other states. Indiana isn't waiting, and for the teachers and students in those schools, the classroom will never be the same. **PL**

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Douglas A. Levin (dlevin@setda.org) is the executive director of the State Educational Technology Directors Association in Washington, DC.