



Thursday, August 27, 2009

A Kindle for Every Student

A reform group wants to put an E-textbook in every student's hand. Not everyone is thrilled

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Posted August 25, 2009

According to a new report from the Democratic Leadership Council, digital reading devices such as Amazon's Kindle could be a useful tool for improving student learning.

In a proposal released last month, the group argues that a K-12 education system where each student has an E-book reader like Amazon's Kindle is "inevitable" and that we shouldn't wait "a decade or two" to achieve it.

Corrected on 8/27/09: *A previous version of this story suggested that the Democratic Leadership Council report asserts that the use of Kindles is more important than better standards, merit pay for teachers, or rebuilding the crumbling infrastructure of America's aging schools.*

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Thomas Z. Freedman, the primary author of the paper, writes that having a "Kindle in every backpack" (the title of the proposal) is not just an educational gimmick but could improve education quality and save money.

"For less money than is spent on conventional textbooks, E-textbooks, over time, could deliver a regularly updated, interactive, and 21st-century education to our children," effectively competing for their attention in the digital age, says Freedman.

The Kindle is a portable hardware device developed by Amazon.com that lets you wirelessly download and read digital books (and magazines and newspapers). Similar devices include the Sony Reader and the Hanlin eReader.

The authors of the paper cite research by Project Tomorrow, an education nonprofit group,

that found that 29 percent of students already use an E-textbook or online curriculum and have clear ideas about what a useful E-textbook would look like. Only 5 percent of parents dislike the concept of E-textbooks, according to the research.

The DLC paper proposes a yearlong pilot program that would furnish some 400,000 students—about half a percent of all K-12 students nationwide—with government-supplied E-reading devices. If judged a success, the program would be scaled up to include the entire student population within four years. Freedman writes that the plan would initially cost about \$9 billion more than the amount currently spent on print textbooks—about \$6 billion—but that savings of \$700 million would kick in during the fifth year of the rollout. He says that \$500 million would be saved annually in the years immediately following.

Not so fast, some education experts say. Jing Lei, assistant professor of instructional design, development, and evaluation at Syracuse University's school of education and author of the book *The Digital Pencil*, is doubtful that five years from now the Kindle (if such a device is still on the market) would offer the same advantages that it does today.

"Then what do you do?" she asks. "Do you keep updating all the hardware and software? There's a lot of long-term costs of implementing a program like this."

Corrine Gregory, president and founder of SocialSmarts, a program that teaches students social skills and values, says that the proposal is rife with flaws. She says it's an example of the Whac-A-Mole approach to education reform: "Whenever something new pops up, the immediate, knee-jerk reaction is, 'Oh, we should do *this* .' We never really step back and ask ourselves what problem exactly are we trying to solve.

"Kids' ability to stay on task and focused has nothing to do with type of vehicle by which they're consuming their education," Gregory says. "Bringing in another gadget will only exacerbate that problem. And how will the teacher control or monitor what the student is supposedly reading?"

At the Las Virgenes Unified School District in Southern California, educators are leveraging the capabilities of E-textbooks on PCs and in printouts rather than on portable, Kindle-like devices. Superintendent Donald Zimring admits there was an initial break-in period for the teachers but says that the learning benefits have been notable.

The district—99 percent of whose students already have computers at home—has been using digital books in fourth- and fifth-grade science classes and 11th-grade math classes since 2007. With the technology, students can view video demonstrations of lab experiments or perform digital heart dissections. Math lessons are taught on IBM ThinkPad laptops.

There is no evidence, however, that the E-texts improved math or reading scores, Zimring says.

While he says that there are educational advantages of E-textbooks, whatever their delivery method might be, he stresses that their success in the classroom will not come simply from repurposing textbook information to fit on a screen. He argues that digital books work best when they are used to bring together multimedia from a variety of sources to support a more comprehensive, interactive form of learning.

While such teaching methods are feasible if implemented using computers, they currently are impossible using dedicated E-readers like the Kindle or Sony Reader, which don't offer videos or interactive tools like quizzes. In a study conducted last year by Project Tomorrow, many students said that they wanted those features.

Experts also are baffled by the DLC's claims that switching over to Kindles and E-textbooks will save schools money when countless districts—especially in the troubled economy—can barely afford new print textbooks. The devices start at about \$250. The Kindle currently on the market sells for \$299, and the larger, textbook-optimized Kindle DX is priced at \$489. Sony's E-reader costs \$280, but this month the company introduced a pocket-size electronic book reader for \$199.

Gregory is concerned about what might happen if students lose or damage their Kindles. "Who will bear the cost of the replacement?" she asks. "The students and parents? The schools?"

Regardless of whether the DLC's 400,000-student pilot program is implemented and deemed a success, Freedman argues that the wealthiest school districts can bring Kindles into the classroom today.

"It would be a real tragedy if the poorer students—who already have trouble with access to

print textbooks and information—are the ones who suffer again from a new kind of school system digital divide," he says.

But digital textbooks might not be much cheaper than the print equivalent because publishers don't want to undercut themselves at bookstores as the technology develops, analysts say. Take *Human Reproductive Biology*, a textbook from Elsevier BV's Academic Press. The Kindle edition costs \$65, Sony's E-book store sells it for \$66, and a 180-day subscription from E-textbook seller CourseSmart.com is \$49. The print edition costs about \$72 from various retailers.

"You have to be cautious about how much you would expect the format of the content to produce a reduction in cost," says Don Knezek, CEO of the International Society for Technology in Education. "The cost of developing the content of textbooks is going to be significant, regardless of the medium."

Electronic availability of textbooks is also a concern. You won't find *Biology* from publisher Benjamin Cummings, one of the best-selling science titles in the country, in the Kindle store. It is not available in Sony's store, either. CourseSmart does offer a 360-day subscription for \$73. (The printed version goes for \$141.) Bob Rouse, a researcher at Washington University in St. Louis, agrees that one of the challenges of E-book readers is that not all books are available, so mixing printed books and digital books might be necessary.

Pearson PLC's education unit, one of America's largest textbook publishers, is slated to unveil Kindle DX-compatible textbooks in the coming weeks, but the company could not be reached for comment. Amazon declined to comment on the DLC's proposal.

Frank Lyman, executive vice president of marketing for CourseSmart, which is a consortium of five publishers, including Pearson and the McGraw-Hill Cos., says its E-books cost, on average, half as much as print counterparts. The titles can be read on PCs (or on an iPhone or iPod Touch) and printed out but cannot be read on a dedicated E-reader like the Kindle.

A handful of colleges and universities are launching pilot projects to see if they can boost student achievement with E-book readers. At the K-12 level, more is happening with digital books and other new media technologies without using E-book readers. At Cinega High

School in Vail, Ariz., students who own laptops can register for "digital sections" of their English, history, and science classes. Teachers throughout the district are encouraged to incorporate their own PowerPoint presentations, as well as videos and research materials found on websites, into their classes.

Many educators see today's students as wired differently, more digitally minded, and better equipped to multitask than those of generations past. But there is still uncertainty about whether children would even *want* Kindles. A recent study of 504 students (albeit at the college level) by the Student Public Research Group, a consortium of Chicago-based student activists, found that 75 percent of them prefer print to digital texts.

"There very well might be students who prefer a traditional setting or a traditional format," says Knezek. He feels that it would be best to offer a choice of formats—Kindle or the perennial papyrus—since "typically what goes wrong in education happens when a solution is applied to the entire student population that only worked for a small group of individuals."

Freedman acknowledges that his vision might be too idealistic to come to fruition. "This proposal is just a concept, an idea to be refined and improved with more dialogue and input," he says. But "if our schools are going to be better, then we need to provide cost-effective instructional materials that reduce pressure on budgets and improve the tools our children use to learn," he insists.

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