

## Textbooks dumped in favor of laptops

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No textbooks? No problem. A revolutionary new high school outside Tucson, Ariz., plans to do away with the bulky, hardcover tomes in favor of laptop computers, making it one of the first schools in the nation to abandon the use of traditional textbooks for the educational value of the internet.

When the Vail School District's Empire High School opens its doors a year from now, all of its more than 600 students will receive Apple iBook notebooks equipped with a wireless card for anytime, anywhere web surfing and internet-based instruction on school grounds. What they won't receive, however, are textbooks. Though the school will have a traditional library and a number of books and novels on hand, teachers will not be provided with textbooks for each class, said Empire Principal Cindy Lee. Rather, the majority of what students need will be available online using their laptops, she said.

Instead of spending hundreds of dollars per student on individual textbooks, which have become increasingly difficult to update given the ever-changing world of state standards, district administrators opted to put the money toward laptops so the curriculum could be modernized digitally alongside evolving requirements, at little or no additional cost.

Lee said the technology should help provide a more relevant curriculum while preparing students for the central role technology likely will play in their lives after graduation.

By stressing the power of digital instruction in the classroom, Lee said, the school hopes to promote the use of online learning resources that meld real-world news and events with standards-based lessons. "We will be able to use much more up-to-date information," she said. For instance, if students were learning about weather conditions, they could hop online and track the path of hurricanes as they move up the coast. "[The technology] will give us a much wider variety of curriculum resources," she added. "It will be very beneficial for these kids."

Though a number of schools across the country already have integrated wireless laptops and one-to-one computing initiatives, district officials contend Empire is the first school in the nation to be built from the ground up with one-to-one computing in mind.

Unlike similar laptop projects already under way in Maine and Henrico County, Va., Lee said, Empire has the luxury of not having to "retrofit" its existing infrastructure to accommodate the technology. Instead, wireless access points and additional power outlets will be embedded into the building's original design plan.

The idea, according to Matt Federoff, technology director for the 5,800-student Vail School District, is to make "technology part of the school's DNA." From the nuts and bolts of the building itself, all the way up to the faces in the hallways, "it will be part of its very being," he said.

Every teacher tapped to join Empire's staff will be interviewed on a volunteer basis and hired by Lee based on his or her enthusiasm for the project.

"The teachers will be expected to have a certain degree of tech savviness," said Lee, who said she hoped the volunteer program would attract only teachers who are excited about the use of technology. "Teacher buy-in is important," she said, pointing out that not every educator is comfortable using a laptop in class.

Educators are slated to receive some form of introductory training on the laptops, though the exact details of the program were not yet available. Administrators also are considering a sort of "technology boot camp" for students, officials said.

The laptops will play a central role in students' lives, both at school and from home, but Federoff said educators will place the emphasis on learning--not hardware. "It's a high school with laptops, not a high school about laptops," he said. "There is a critical difference."

The idea, according to Lee, is "to better prepare students for what they'll be doing when they get out of high school."

To compete in today's mobile workforce, she said, students must learn how to use technology while they're on the move. By taking the laptops home and toting them to school each day, Lee hopes Empire grads will embrace the possibilities for ubiquitous learning inherent in one-to-one computing.

Despite overarching enthusiasm for the project, administrators at both the school and district levels admit that large-scale technology projects don't often launch without their fair share of problems.

"I'm definitely going to need more technology staff," conceded Lee. The school will maintain a stable of about 30 laptops it can switch out for machines that break or go in for repairs. Still, she said, there are bound to be additional maintenance issues with all the technology floating around in classrooms.

Though she anticipates having at least three full-time technology specialists on staff, Lee also is considering providing additional technology credits to student volunteers who work with the IT department to help maintain the machines.

As for security, Federoff said every laptop will be loaded with a special protection device that ensures students are held to the same browsing restrictions at home as they are in school. Using features available through the latest Mac OS X operating system, Federoff plans to set preinstalled protections so that no student will be allowed to download programs or import potentially corrupted applications onto the school's server.

District officials still have not decided whether to buy or lease the iBooks from Apple, though Lee said she was leaning toward the rental approach, which is slightly more expensive but would allow Empire to update its machines every two or three years.

In terms of cost savings, Lee said the laptops aren't likely to save the school money in the near term, because the cost of the computers is slightly higher than what the school would have paid for textbooks. But down the road, she anticipates it will be much more cost-effective to invest in digital learning resources than to cough up the extra money for new textbooks year in and year out.

Officials said they chose Apple to provide the laptops because the machines are generally safer from viruses than their Windows counterparts and, in the event of a malfunction, they said, can be repaired in minutes by school technology staff. By localizing its one-to-one initiative to Empire, district officials hope to provide one more option for students and parents who choose to take advantage of the school system's open-enrollment policy, which lets kids attend any one of the district's three high schools.

Federoff said Empire would take the idea of parental choice to a whole new level. Instead of forcing the technology upon students and parents, he said, the district will allow families to choose what's best for their kids. Vail already has a traditional high school and a vocational institution.

While the school is being built, Lee plans to work with district officials to evaluate a host of online and technology-based learning materials in hopes of developing a curriculum that meets the both school system's and students' needs.

"I always tell people this is not a novelty or a gimmick," Lee said of the laptops. "This is a way to deliver instruction."