

 The iPad 

 Goes

To School 

Learning how to learn without textbooks

By Devin Leonard

Photographs by Harry Gould Harvey IV





September, the Los Angeles Unified School District began carrying out a \$50 million plan to equip 30,000 students in 47 schools from kindergarten through 12th grade with an iPad. Giving kids iPads sounds like installing candy machines on every desk, or worse, Xboxes. The educators naturally disagree. They spent \$678 per iPad, loading them up

with software from the Pearson educational group and locking them down so that students couldn't wander around the Internet unchaperoned.

It took only a few days for students at Westchester High School, in southwestern Los Angeles, to bypass the filtering software so they could update their Facebook pages and stream music from Pandora. "It was predictable that people were going to find a way," says Dominique Daniels, a 16-year-old at Westchester. "It wasn't that hard."

The Los Angeles Unified School District (LAUSD) treated the security breach as a crisis. At Westchester High and two other schools where students managed to liberate their iPads, it ordered that all tablets be returned. In a confidential memo intercepted by the *Los Angeles Times*, LAUSD Police Chief Steven Zipperman warned of a larger student hackathon and suggested the district was moving too quickly. "I'm guessing this is just a sample of what will likely occur on other campuses once this hits Twitter, YouTube, or other social media sites explaining to our students how to breach or compromise the security of these devices," wrote Zipperman. "I want to prevent a runaway train scenario when we may have the ability to put a hold on the rollout."

Josh Hoover, a 16-year-old at Westchester High, misses his iPad and is still puzzled by the fuss. Standing outside the school in early October, he said he sympathizes with his industrious peers. "They should let us use Facebook," Hoover said. "There's nothing to do on it besides academics. They just want it to be a big old book."

The fiasco in Los Angeles confirms many people's fears about the proliferation of devices in classrooms. "If the object was to allow kids to have a free iPad to go to Facebook and to engage in social media, that has been accomplished," says Diane Ravitch, author of *Reign of Error: The Hoax of the Privatization Movement and the Danger to America's Public Schools*. "But what it has to do with better learning, I don't know." Ravitch isn't the only person uncomfortable with the rise of the edu-tablet. "I just see a mad rush from a lot of districts right now just to say, 'We bought iPads. Now what?'" says Michael Horn, executive director of the Clayton Christensen Institute's education program. "That worries me."

Critics contend that the adoption of tablets in public schools is being driven by the technology industry's needs, not the students'. Apple declined to comment for this story, but in June the company said there were 10 million iPads in schools across the country. That's not a huge amount for Apple, which is expected to sell 78 million tablets this year, but it isn't insignificant. Gene Munster, senior research analyst at Piper Jaffray, a Minneapolis-based investment bank, estimates that educational iPads generated \$436 million for the company in this year's second quarter, or 1.2 percent of the company's total revenue. These sales are likely to grow significantly if Apple can consummate more deals like the one with the LAUSD, which originally hoped to put tablets in the hands of all 650,000 of its students by next year. "It's difficult to model," Munster says, "but 50 million K-12 students is a real market."

Apple isn't the only company eyeing this segment. News Corp.'s Amplify division, headed by former New York City Schools Chancellor Joel Klein, is marketing an educational tablet with a function that alerts students with an "eyes on teacher" command when their attention wanders; it will soon come preloaded with curriculum software featuring readings of famous texts such as *The Narrative of the Life of Frederick Douglass* by noted thespians. In May, Amplify won an estimated \$14 million contract to furnish

17,000 middle school students in Guilford County, N.C., with its devices. "We're really looking at this through the prism of a school, not taking a consumer device and saying, 'Here are some educational apps,'" Klein says, thumbing his nose at Apple. Fuhu, a company that makes a damage-resistant tablet for kids called the Nabi, has seen 42,148 percent growth over three years without a single school contract. There's even a Nick Jr. edition.

"What's happening today is a one-time-in-history shift to digital" in public education, says David Liu, chief operating officer of Knewton, a New York-based software company that's developed algorithms to enable teachers to instantaneously track the performance of their technology-enabled pupils. "Schools are buying millions of tablets. You can't have a digital education product that doesn't work on them."

Pearson's stock has underperformed the Standard & Poor's 500-stock index this year in part because of investor concerns about its digital transformation. The company naturally hopes its software will ride into school districts on tablets, too. "We are very excited as a company to try to get out there and create what we think is going to be an all-new digital curriculum," says Jonathan Harber, head of Pearson's K-12 technology group.

After what happened in Los Angeles, school administrators are thinking about delaying districtwide distribution until 2015 to avoid further problems. Other education officials across the country are also reconsidering their tablet enthusiasm. The Corvallis (Ore.) district postponed its rollout to tighten the security of its iPads. The Fort Bend Independent School District in Texas is discontinuing a plan to use 6,300 iPads in science classes. News Corp. has run into trouble, too. In October, Guilford County said it was suspending the use of Amplify tablets because of widespread problems with broken screens and one instance in which a student's charger got so hot that it melted. An Amplify spokesman says the company is working to solve the problems.

Los Angeles's mistake, meanwhile, may not have been giving students iPads, but trying to turn iPads into something else.

"My students are tweeting at me," says Michael Milton, a history teacher at Burlington High School, 20 minutes outside Boston. "I can feel it." Milton has just given his 12 students an assignment he calls "Social Media Meets the Enlightenment." They're instructed to blog as philosophers such as Thomas Hobbes, Jean-Jacques Rousseau, Montesquieu, and Mary Wollstonecraft and promote their work on Twitter. They will use their school-issued iPads. Nearly every one of Burlington's 3,700 students has one, except for the kindergarteners. Theirs arrive next year.

Milton, 33, has a professorial beard and wears a gray cardigan. He has only been teaching for three years, but what he lacks in experience he makes up for in instinctive understanding of technology. His students will be fielding questions on the Internet from history teachers and professors around the world, and Milton will recruit these scholarly inquisitors from his own 1,611 Twitter followers.

Giving kids iPads sounds like installing candy machines on every desk



Within minutes, his students have created new Twitter accounts and introduced themselves on the Internet as famous thinkers. Soon, the questions start arriving. A high school social studies teacher studying abroad in Lebanon wants to know what Hobbes would have thought of the Syrian crisis. An assistant principal in Canada wonders what Montesquieu would have made of the National Security Agency's surveillance campaign. Kenneth Davis, the author of the bestseller *Don't Know Much About History*, asks the French philosopher to reflect on governmental paralysis in Washington. Milton's students seem excited, even Rachel Czerwinski, 15, who defiantly carries a spiral-bound notebook to class. "I use paper for most of my classes," she says. "Like, sometimes the iPad can be annoying, but without it, we couldn't do cool projects like this."

If ever there were a school district likely to be early on the technology adoption curve, it's Burlington. Until the 1950s, the town was a farming community. Then high tech companies started setting up shop along Route 128, which runs through the town. Today, Oracle has a large presence, along with Nuance Communications, the maker of Dragon dictation software. The town's schools were fairly traditional until 2007, when the district hired Patrick Larkin as principal of Burlington High School. Growing up in nearby Mendon, Larkin, now 46, was more interested in sports than computers. After college, he covered the Boston Bruins for a local newspaper but found journalism less romantic than he'd hoped. So he became an English teacher, eventually rising to become an administrator.

Students at Burlington find Larkin endearingly quirky. He's six feet tall. He has a heroic chin. He moved his desk into the hallway so he would know everybody's name. And his passion for technology blossomed. "I got on Twitter and just found progressive educators doing neat things," Larkin says. He has since been promoted to be the district's assistant superintendent for learning. He now has 25,978 followers. Two years after becoming principal, he discovered that districts in Iowa were giving laptops to every student. He thought Burlington ought to do something similar. "We have all these tech firms here," he says. "It would be kind of silly for us to not be focusing a little bit more on that."

Larkin formed a committee to look at hardware. He thought he'd found the perfect device on Jan. 27, 2010, when Steve Jobs unveiled the iPad. As soon as the press conference was over, Larkin called the district's Apple salesman. He recalls that the salesman told him Apple wasn't certain the iPad was right for the classroom. Burlington got some iPads to play around with anyway. Larkin liked that the device has a longer battery life than most laptops. After all, the district didn't have an electrical outlet for every student. He also thought it would be easier for them to download apps than install

Shane Farley,
grade 12



Kylie Scott,
grade 12



Sabino Castelluccio,
grade 12



Ronak Patel,
grade 12



Jamiru Kasozi,
grade 11



Pranav Menon,
grade 12



Rachel Czerwinski,
grade 11



Timmy Sullivan,
grade 10



Xin Zhang,
grade 12



software. When Apple introduced the iPad 2 in March 2011, Larkin and his administrators decided to allocate \$200,000 for tablets in the first year of the program, spending \$400 per iPad.

Early on, Burlington treated the iPad differently than Los Angeles did. It decided not to lock them down to prevent non-educational pursuits. Larkin read a study about how this caused problems in Maine. "Where schools locked down the devices, there were higher damage rates and lower success rates," he says. Burlington figured it made sense to use software from a company called Lightspeed Technologies to keep students away from digital porn. But other than that, they would be able to commune with each other on social media and listen to music on Pandora as long as it didn't become a problem. "He didn't want to limit everything," says Thabani Chibanda, a former Burlington High student who served on Larkin's committee and is now a sophomore at the University of Rochester. "He didn't like the excuse that we can't trust our students."

Instead, Larkin encouraged students to take "digital literacy" classes, where they would learn how to create a Web presence that would impress college admissions executives and future employers. "The old mentality is, make sure your kids know

that they can't post anything inappropriate or have negative stuff online when people do a Google search," he says. "Our mentality is, that's kind of the lowest common denominator. Yeah, OK, don't post anything bad, but start thinking about your digital footprint. It's becoming your résumé."

Burlington High students knew intuitively how to operate an iPad; the teachers were another matter. Not only were most of them less technically adept than their pupils but some didn't want to work the shiny new devices into their lessons. "Honestly, it was a generational split," says Todd Whitten, chairman of the high school's history department. "The older teachers were like, 'No. I don't want to change. This is just a game-playing toy.'"

Students admit that it was difficult at first to resist playing games in class. Many say they were punished for such transgressions. Those who honed their Angry Birds skills outside of school also paid a price. "I'd always assumed the iPad was something you use for games," confesses Ronak Patel, a 17-year-old student. "So I did that for a while, and I suffered the consequences. My grades dropped."

After a few months, though, Burlington High started to calm down. Students say they kicked their gaming habit, and teachers started to view the device differently, too. The language department got rid of its outmoded computer lab once students had their own Internet-connected devices. The English department created an online vocabulary textbook that was so effective they were able to stop buying pricey traditional ones. Teachers who continue to have tech headaches often find relief at the student help desk, also known as the high school's in-house Genius Bar. "The teachers are very candid when they don't know what they're doing," says Xin Zhang, a 16-year-old help-desk member. "We're more than glad to help."

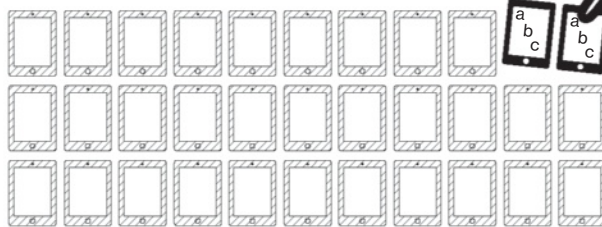
At the end of the first year, Larkin conducted a survey that showed the program's success. Seventy-five percent of the students at Burlington High said their iPads had helped them become better organized. Eighty-four percent said they were benefiting because their teachers were posting more material online. Emboldened by the results, the district decided to expand the program.

In the fall of 2012 it distributed iPads to middle school students, albeit with some restrictions. Middle school kids can't take the devices home yet. And last September, many elementary school pupils got iPads, too, in special protective cases. At a recent meeting, a school tech team member winged an encased tablet across the room like a Frisbee, after which it worked fine.

For John Deasy, the superintendent of the LAUSD, getting tablets into classrooms is a civil rights matter. Many students in his district come from families that can't afford any educational device, let alone Apple's. In interviews, Deasy says it would be tragic if they were deprived of the iPad's benefits simply because they're poor. But the district was so rattled by the hacking that it forbade the students at the remaining 44 pilot program schools from taking iPads home.

The LAUSD is now working with Apple to make the operating system of the iPad more restrictive so students can't use them to linger on Facebook. "That's not what these devices were designed

Of the **155 million** iPads sold since the device's debut, **6 percent, or 10 million,** were in schools as of June



for," Deasy said in a recent television interview. "We have to get students to be more responsible." Shannon Haber, a district spokeswoman, says Deasy hopes to one day talk to students about how they'd like the devices to work.

But what if Los Angeles has it backwards? "If you want kids to use social media properly, then you should give them access to it to learn how to use it properly in a school setting," says Jennifer Scheffer, a Burlington High technology teacher. "And because the administration is so connected on those tools themselves, it's much more difficult for our students to be irresponsible because the administration can say, 'Hey, I saw you on Twitter.' And they do."

Other districts trying out unlocked iPads are also having success. "We block porn, and we block hate speech," says Pat Karr, computer networks director at the McAllen Independent School District in Texas, an iPad school district with 25,100 students. "But for the most part, we're pretty open. We allow Facebook, Twitter, and all those things, until it becomes a hindrance to education. We have taken a lot of flak. Even my own peers are like, 'Pat, why are you doing that?' It's what the kids want. It's what the teachers want."

Many school districts with this philosophy take issue with News Corp.'s tablet approach. The company's gadget comes with specially developed scholarly apps. The company hopes its elaborate curriculum software will demonstrably improve student test results. Justin Hamilton, an Amplify spokesman, says customers are free to configure the tablet as they please. But people in digitally permissive districts say they would rather not be constrained by prepackaged stuff. "We haven't followed that kind of model," says Karr. "It's restrictive."

"I'm not a big fan of Amplify," Larkin adds. His district encourages students to use a handful of iPad apps such as Google Drive for writing assignments, Evernote for note-taking, and Explain Everything for creating videos. Beyond that, Larkin would prefer they use the Internet to find answers to their queries rather than relying on outdated textbooks or souped-up educational software. He says Burlington's teachers, by and large, are on board: "We don't have people coming in, saying, 'I can't believe you took this textbook away from me. I can't teach anymore.'"

Ben Lally, the English department chairman, concedes that the first year with iPads wasn't easy, but now he's one of the district's digital leaders. One afternoon in September, he runs into network problems. Burlington has upgraded its wireless

network twice since it introduced iPads. Yet the system gets bogged down, especially between classes when students and faculty are checking e-mail and Twitter. "Of course it figures—I have someone here from *Bloomberg Businessweek* and it fails," Lally laments.

"Just wait for it," a student patiently advises.

Lally gives it another few seconds. Then he's back on the Internet along with all his pupils. **E**

—With Karen Weise

Patrick Larkin, assistant superintendent for learning



Michael Milton, history teacher



Jennifer Scheffer, technology teacher

