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Technology News for Today's Higher-Ed Leader

Vol. 3 No. 1 January 2010

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SUCCESS AT THE TOP

- 6** Middle Tennessee State IT chief Barbara Draude keeps one foot in the classroom

FRONT LINES

- 7** Google tests new 'untethered' mobile phone; Pearson pilots computer-based teacher certification; and more

IN THE NEWS

- 10** Blackboard, Desire2Learn declare legal truce
- 11** Report names top threats to campus networks
- 12** Amazon's Kindle to get audible menus, bigger font
- 13** Comcast, NBC deal to test net neutrality
- 14** Students spread the Google gospel

FEATURES

15 Cover Story: **For-profit colleges under scrutiny**

Commercial schools accused of questionable recruiter-pay practices, lower standards, and high loan default rates among students

18 Today's lesson: **Developing iPhone apps**

Colleges and universities are using iPhone applications to teach students how to create useful technology

20 R2D2: An ed-tech model that computes

'Read, Reflect, Display, and Do' can help instructors leverage the internet's potential to help students learn



DEPARTMENTS

24 Behind the Enterprise

Geothermal trend heats up on college campuses

25 Teaching & Research

Free online tools simplify research

26 Money Matters

Ed-tech grants target remedial college courses

27 Law & Ethics

Student ordered to destroy downloaded music files

28 eCampus Security

Text-a-Tip programs help promote school safety



eCAMPUS NEWS

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Barbara Draude

IT chief keeps one foot in the classroom

Teaching nursing students helps Middle Tennessee State's

Barbara Draude stay abreast of the latest in campus technology

Dennis Carter, Assistant Editor

University IT officials can preach every semester about the growing importance of instructional technology, but the message might ring hollow coming from technology officers who have never taught a college course.

That's why Barbara Draude's sermonizing on campus computing hits a different note with faculty at Middle Tennessee State University (MTSU), where Draude teaches an online nursing class despite her critical role in IT.

Draude, assistant vice president of academic and instructional technologies at MTSU since 2007, said having to rely on instructional technology—such as sharing course content on class web sites—brings valuable perspective to her job as technology trainer for fellow professors.

"If I can show how I use it, then I can really talk the talk and walk the walk," said Draude, 50, a faculty member for 23 years at MTSU's Murfreesboro, Tenn. campus. "It lets me stay up on the latest and greatest in nursing and using new technology."

Draude was recently invited to join the exclusive faculty of the Instructional Technology Leadership Institute, a three-year commitment that will place Draude at the head of workshops designed to improve faculty members' computer skills.

The institute's next weeklong meeting

will be held in Portland this June, she said.

"The key, to me, is being a good communicator about the implications of technology," she said. "Information technology is becoming a part of everything we do."

Internet-based learning wasn't embraced by most campus officials in the early 1990s, but Draude said campus classrooms with web connections and tools such as projectors—known as "master rooms" back then—struck her as a harbinger of higher education's future.

// The key, to me, is being a good communicator about the implications of technology."

"Now they're called 21st-century classrooms," Draude said with a laugh. "And I definitely wanted to be a part of that."

When MTSU's nursing program was given a computer lab thanks to a university benefactor, Draude immersed herself in internet lingo and code writing, creating class web sites that were accessible to students at local community colleges.

"It was an entirely new way to manage classes," she said.

Draude said most faculty members are

proficient with the school's course management system, although the first and last weeks of each semester are always the busiest for IT staff answering professors' queries.

Many instructors struggle to compile student rosters in the opening days of a new term, she said, and professors who use complicated grading systems that take many factors into account often have troubles when it comes time to post final grades to the class web site.

"The more complex their grading scheme is, the more difficult it's going to be," said Draude, who assembled a team of 20 faculty members to evaluate course management systems when the university searched for a new option last year.

Each committee member assessed systems from a professor's and a student's point of view, Draude said. MTSU switched to Desire2Learn after the extensive search.

MTSU's Information Technology Division also helps faculty with optical scanning services for test scoring. IT staff members can help professors produce easy-to-read graphs and statistical analyses breaking down exam and final grade results.

For faculty members who want to learn the tricks of the computer trade without IT help, Draude and her division offer frequent workshops and training sessions that cover a wide range of lessons.

Google tests new mobile phone not tied to any carrier

Internet search leader Google Inc. is working on a new phone called "Nexus One." Manufactured by Taiwan's HTC Corp., the device wouldn't be tied to a specific carrier, unlike other phones using Google's Android mobile operating system.

The autonomy of a so-called "unlocked" mobile phone could give consumers more freedom to select the carrier of their choice, although the unique technology running competing U.S. wireless networks still might limit users' options.

Unless Google is willing to sell the phone at a loss, the Nexus One is likely to be much more expensive than Apple's iPhone and similar devices, which receive subsidies from wireless carriers.

With those subsidies, most smart phones sell for \$50 to \$200, instead of the \$400 to \$600 price they'd have without the financial aid. The carriers recover their expense through service plans that cost \$800 to \$1,000 a year.

If it intends to keep the Nexus One's price low enough to pique consumer interest and protect its earnings, Google might still have to negotiate subsidies from wireless carriers, said Forrester Research analyst Charles Golvin—an arrangement that wouldn't change the status quo.

Or Google could be hoping to generate enough revenue from ads shown on mobile web sites and applications downloaded on the Nexus One to cover the cost of any discounts. But the mobile advertising market in the U.S. is still small, with \$416 million in revenue expected this year. In contrast, Google generates more than \$10 billion annually

from the sale of online ads shown on personal computers.

Selling equipment would mark a significant shift for Google, which has said in the past that it prefers to leave the design and marketing of smart phones to manufacturers. Android has given Google a strong foothold in the mobile market, although it's not nearly as large the one Apple has carved out while selling more than 30 million iPhones during the past two-plus years.

Pearson pilots computer-based teacher certification

As would-be educators and the school systems looking to hire them continue to explore alternative routes to teacher certification that can help speed up the process, education publishing

...continued on page 9

UC energy savings could top \$30M

The 10 University of California campuses expect to save \$36 million in annual utility costs after a series of green initiatives that include replacing 500 energy-intensive computer servers at UC San Diego with 270 servers that require about half the electricity.

The server replacement will save the university \$680,000 by slashing energy consumption by 7.9 million kilowatt-hours per year, according to projections released by the 1,200-acre campus, home to more than 27,000 students.

UC San Diego's \$73 million energy-saving initiative is part of a larger University of California program designed to cut greenhouse gases on all of its campuses, especially in older buildings that are the least energy efficient.

While California higher education has seen operating budgets cut to the bone in the past year, UC San Diego won't have to allocate any money toward the effort.

San Diego Gas & Electric gave \$14 million used in the green program, and the rest was funded with \$59 million in low-interest revenue bonds that the university will pay back with the massive energy savings it expects.

John Dilliot, the campus's energy and utilities manager, said the energy-reduction program will aim to cut down energy used by the university's research equipment, such as



freezers that run at minus-80 degrees Fahrenheit and give off "large volumes of heat."

Energy savings, he said, are not only found in the replacement of outdated technology. The green initiative also will focus on everyday tasks that add up to huge utility costs by year's end.

UC San Diego has replaced more than 100,000 light bulbs in the past two years, he said. And the school will soon have only low- and zero-emission vehicles in its 800-vehicle fleet. The large-scale program includes the use of 7.8 megawatts of renewable energy within the next few years and a goal to achieve carbon neutrality by 2025.



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...continued from page 7

giant Pearson has announced a new pilot program that intends to provide a completely computer-based teacher certification system.

Pearson is asking teachers-in-training who are seeking a teaching license and need to take a licensure examination, as well as students in teacher-preparation programs and educators who have been recently licensed, to participate in its National Evaluation Series (NES) pilot program.

Pearson says it developed the NES program to help states make sure the educators they certify are prepared to teach effectively in 21st-century classrooms. William Gorth, president of Pearson's Evaluations Systems group, said having a teacher certification exam that's completely computer-based allows the company to use technology to develop new, authentic test questions. It also makes taking the test more practical for teaching candidates, he said.

The pilot program is scheduled to run through April. If it proves successful, Pearson plans to launch the official program on a state-by-state basis beginning next September.

Gorth said a computer-based exam can be used to determine not only whether a teaching candidate knows the required content, but also how effective he or she might be at classroom management. For example, a video-based question could present a classroom situation and then ask the candidate how he or she would handle it.

"But as far as I know, there is no test that can guarantee that somebody who knows what to do will actually do it as a teacher in a classroom," he said. "...And that's true of any testing program."

The pilot tests will be delivered at Pearson's secure computer-based testing centers around the country, and those interested in participating can register on the program's web site (www.pearsonvue.com/nas).



Video game teaches students fiscal skills

A new video game designed to help New York students learn to manage their money tries to make the dullness of balancing a checkbook look more like the thrill of driving for a touchdown.

The game tests high school and college students' fiscal skills in an online simulation based on the rules of the NFL. Students can score first downs, gain yardage, and score points by answering questions correctly. The level of difficulty varies, with questions like what to do when you run out of checks and the limits on an IRA.

New York Comptroller Thomas DiNapoli released the game, "Financial Football," on Dec. 15. With the economy still shaky, it's never too early to learn how to spend and save responsibly, he said.

The game is designed to be played in teams. To score points, a team needs to correctly answer a series of money-management questions. If they're wrong, a team can lose yardage. The team with the highest point total after four quarters wins.

The game comes with two general settings—high school and college levels—and teams have options to pick tougher questions worth more yardage. The advanced, college version comes with a time limit:

30 seconds per question for normal play and 10 seconds for a kick return.

Copies of the game will be available online (www.newyork.financialfootball.com/games/trainingcamp/ff/). Visa Inc. is paying for the initiative.

New site provides comparative data on college costs, diversity, and more

The Institute for College Access and Success has launched a new web site for higher education data and research. Called College InSight (www.college-insight.org), the site is a resource for anyone interested in college affordability, student debt, economic and racial diversity, graduation rates, and other characteristics of U.S. undergraduate students and the colleges they attend, its creators say.

The site provides user-friendly profiles with detailed information for more than 4,000 U.S. colleges and universities. It enables users to compare individual colleges, types of institutions, states, and more, with 150-plus variables for most academic years since 2000-01. It also aggregates the data and provides totals and averages for states, types of schools, and other groupings.

Blackboard, Desire2Learn declare legal truce

Course-management firms end back-and-forth lawsuits that roiled many in higher education

From staff and wire reports

The three-and-a-half-year court battle between learning management system (LMS) giant Blackboard Inc. and its biggest competitor, Desire2Learn, ended Dec. 15 when the companies agreed to license each other's patents and drop long-standing lawsuits. But some observers believe the truce comes too late to stem the growing movement toward open LMS technologies in higher education.

The protracted legal clash began in 2006 when Blackboard—the market's No. 1 commercial LMS—received a patent for online learning systems widely considered to be too broad.

Blackboard sued its biggest rival, Desire2Learn, for patent infringement, and the companies went back and forth until last July, when a federal appeals court voided part of the Blackboard patent.

Neither company disclosed financial details of the settlement. Both make LMS software that helps educators log student grades, conduct web-based class discussions, and distribute class material.

"We are pleased to have resolved our differences with Desire2Learn," said Michael Chasen, president and CEO of Blackboard. "Bringing this matter to resolution is in the best interests of both of our organizations, our respective clients, and the broader education community."

Campus technology experts said they were relieved that Washington, D.C.-based Blackboard's patent did not stand in court, but many added that the sometimes-ugly court fight might have harmed the images of both companies among college IT decision makers.

"They realized that lawsuits are hampering both of them ... and hopefully

they've realized they have to put that behind them," said John Orlando, program director for information assurance and business continuity at Norwich University in Northfield, Vt. "It's a way of them getting on with it and improving their products."

In the years since Blackboard and Ontario-based Desire2Learn filed their lawsuits, educators said, open-source learning system models that incorporate Web 2.0 tools such as wikis and blogs have become a viable alternative to the strict corporate approach to LMS software.

The move away from traditional learning platforms could force market leaders like Blackboard and Desire2Learn to incorporate more Web 2.0 features in their newest products, Orlando said.

"The leaders in the [educational] technology field are embracing Web 2.0," he said. "With all the variety out there now, companies like Blackboard are probably going to be forced to make those changes."

Raymond Schroeder, director of the University of Illinois' Center for Online Learning, Research, and Services, said the settlement between Desire2Learn and Blackboard "holds far less meaning" than if the companies had come to an agreement three years ago.

The LMS landscape has changed, he said, and both companies spent millions to fight over a technology that is no longer favored by technology officials.

"The current budget situation facing everyone has colleges, universities, and school districts across the country questioning if they can continue to afford the kind of expenditures required for a commercial LMS," Schroeder said. "When a university is facing layoffs and



unpaid furloughs, an expenditure of \$20,000 to \$200,000 [for a commercial LMS] is often mentioned as one place to save [money]. Open-source systems are generating a lot of interest, as is the idea of packaging together a group of Web 2.0 technologies to replace an LMS."

Blackboard began adjusting to schools' open-source migration in the midst of its legal back-and-forth, unveiling an instant messaging service in April.

Professors and their students can discuss lesson plans and homework questions with the instant messenger's pre-populated class rosters, which provide connectivity between classmates who might be encountering the same problems in preparation for quizzes and tests. Pre-populating the IM service ensures that professors are not assigned the tedious task of collecting student IM addresses and plugging them into the course web site.

Desire2Learn's LiveRoom includes a chat function and a virtual whiteboard space that lets online tutors conduct lessons in real time. The platform also allows students and professors to download files and presentations, and it lets faculty members track attendance and create online polls.

Report names top threats to campus networks

Dennis Carter, Assistant Editor

Eight out of 10 colleges included in a recent study were deemed vulnerable to cyber attacks that could cost IT departments thousands of dollars, highlighting the security downfalls of decentralized campus networks with little interconnectedness.

WhiteHat Security, a California-based web site risk management company founded by a former Yahoo information security officer, published a white paper in November saying that 83 percent of the educational sites managed by the company are susceptible to viruses, hackers, and other security breaches.

The white paper is the eighth in a quarterly series that examines web site security statistics.

WhiteHat's analysis is the latest national report to suggest that higher education's decentralized IT networks create a challenge for technology officials in safeguarding the dozens of various web sites maintained on campus—making colleges and universities an attractive setting for internet hackers trolling for personal information.

The analysis included likely reasons for college networks' vulnerability.

Cross-site scripting, which often contains "malware-laced ... web worms," allows web attackers to bypass a computer's access controls. The impact can be minor if the hacked web site does not contain sensitive information.

University networks, though, are jam-packed with personal data, such as students' IDs and Social Security numbers. Cross-site scripting in a school's web site can leave student and faculty information open to anonymous attackers.

Content spoofing is another common tool used by internet hackers, according to the WhiteHat white paper.

Web users receive a link that transfers

to a screen instructing them to type in a user name and password. These sites are often hosted with interfaces that mimic a legitimate campus site, making it difficult for users to tell that they are on a fraudulent site designed specifically to steal their personal information.

"Decentralization translates into a lack



Cross-site scripting is one risk to college web sites.

of control [with] respect to security," said Stephanie Fohn, WhiteHat's chief executive officer. "People pretty much do their own thing ... and often the university will then try to institute global policies after the fact, but it is very difficult to enforce those."

Information leakage also has posed a persistent threat to campus computer security, according to the report. The leakage occurs when a campus web site "knowingly or unknowingly" reveals software version numbers, error messages, developer comments, source code, and internal IP addresses. A hacker can use any of this information to compromise campus networks.

Shannon Ortiz, director of IT security at Fordham University in New York, said relying on automated machine-run scans of a college's massive network can produce false positives—a series of warnings

that might not be harmful to campus computers—while destructive malware lurks in the background, slowing down internet connections across campus.

"We have a human verify every vulnerability we find," said Ortiz, who has been at Fordham for 18 years and uses WhiteHat security tools. "We get the data back so we know [what] we're actually finding ... and it definitely weeds out the necessary information."

Creating a centralized IT infrastructure and having staff sort through potential security threats, Ortiz said, can help campus decision makers avoid network breaches that affect the college's bottom line.

"The long-term effects can be a public relations nightmare," Ortiz said. "[Faculty members and students] worry about their data, so they might not want to come to a school knowing that their data is at risk. ... In the long run, you lose enrollment and quality of faculty."

The WhiteHat report comes three months after Identity Theft 911, an Arizona-based company founded by consumer advocates and experts from the financial industry and law enforcement, released a report called "America's Universities: A Hacker's Dream." That report documents some of the largest recent computer security breaches on college campuses and discusses solutions for IT decision makers and students.

Twenty-seven American colleges and universities saw personal records stolen in the first seven months of 2009, and the report concludes that a "sprawling profusion" of disparate computer networks and servers—each with a different security policy—makes IT departments "powerless to enforce any standards," meaning student grades, credit information, and Social Security numbers remain vulnerable.

Amazon's Kindle to get audible menus, bigger font

Changes come in response to criticism from persons with disabilities

From staff and wire reports

Amazon.com Inc. will add two features to its Kindle eBook reader to make the gadget more accessible to blind and visually impaired students and other users.

The company's Dec. 7 announcement comes a month after Syracuse University in New York and the University of Wisconsin-Madison said they would not consider widely deploying the device as an alternative to paper textbooks until Amazon makes it easier for blind students to use. Both universities bought some Kindles to test this fall.

The Kindle has a read-aloud feature that could be a boon to blind students and those with other disabilities (such as dyslexia), but turning it on requires navigating through screens of text menus.

Amazon on Dec. 7 said it is working on audible menus, which would let the Kindle speak menu options out loud. It's also working on an extra-large font for people with impaired vision. The additions should reach the Kindle next summer, Amazon said.

Chris Danielsen, a spokesman for the National Federation of the Blind, said the organization doesn't know enough about the new features to say whether they adequately address concerns of the blind community. But, he said, it's a good sign that Amazon is expressing commitment to improve the Kindle.

Amazon last year released the \$489 Kindle DX, a large-screen model aimed at textbook and newspaper readers. Several colleges, including Arizona State University, are testing the gadget this academic year and sending feedback to the company.

The federation of the blind, which is based in Baltimore, teamed up with another advocacy group, the American



“Even as the advocacy groups push for greater read-aloud capabilities, the Authors Guild has expressed concern that the feature will hurt sales of audio books. So Amazon has given publishers and authors the ability to silence the text-to-speech function for their books.”

Council of the Blind, to sue Arizona State in an attempt to block it from using the Kindle as a way to distribute electronic textbooks, because the devices can't be used by blind students. (See “Kindle pilot is discriminatory, advocates charge”: <http://www.ecampusnews.com/news/top-news/?i=59869>.)

It also filed complaints with the Justice Department against five other schools participating in the Kindle trial with Amazon: Case Western Reserve University in Cleveland, the Darden School of Business at the University of Virginia in Charlottesville, Va., Pace University in New York, Princeton

University in Princeton, N.J., and Reed College in Portland, Ore.

Syracuse University and the University of Wisconsin were not among the pilot-test schools.

Danielsen declined to comment when asked if Amazon's proposed changes would lead the federation to abandon its complaints.

Even as the advocacy groups push for greater read-aloud capabilities, the Authors Guild has expressed concern that the feature will hurt sales of audio books. So Amazon has given publishers and authors the ability to silence the text-to-speech function for their books.

Comcast, NBC deal to test net neutrality

\$13.75 billion merger expected to face tough antitrust review

From staff and wire reports

Analysts say Comcast Corp. likely will have to accept substantial conditions if the cable TV provider wants to win regulatory approval for control of NBC Universal's broadcast network, cable channels, and movie studios in a \$13.75 billion mega-deal that is sure to test "net neutrality," the idea that broadband providers should not be able to discriminate against certain types of internet traffic flowing over their lines.

Although federal regulators probably won't block a deal outright on anticompetitive grounds, they could prohibit Comcast, for instance, from denying rival subscription-TV services access to NBC channels and other popular programming. And they could prohibit the cable giant from blocking or delaying the streaming of content from other networks over its broadband pipeline.

Under a deal announced Dec. 3, Comcast would control the Peacock network and about two dozen cable channels, along with the cable lines to roughly a quarter of all U.S. households that pay for TV.

But a review by the Federal Communications Commission and either the Justice Department or the Federal Trade Commission could take a year or longer.

The deal is bound to face tougher scrutiny than past ones, given a Democratic administration that has vowed to encourage diversity in media ownership and ramp up antitrust oversight overall.

"This is a new administration that has promised to be a tough cop on the beat," said Corie Wright, policy counsel for Free Press, a public-interest group that opposes the deal. "Any conditions it exacts should and will be painful, because this would be a tremendous

consolidation of market power."

Regulators probably won't stop the deal entirely, because the two companies are in different businesses with little overlap. But federal reviewers will have to sort out the implications of allowing a company that already provides cable and internet connections to so many Americans—including several schools—to take control of a vast media empire, too.

NBC Universal owns the NBC and Telemundo broadcast networks; 26 local TV stations; an array of popular cable channels, including CNBC, Bravo, and The Weather Channel; the Universal Pictures movie studio and theme parks; and a stake in Hulu, which distributes free television programming online.

Comcast, meanwhile, has 23.8 million cable TV customers, 15.7 million high-speed internet subscribers, and 7.4 million customers for its phone service. The company also owns some cable channels already, including E! Entertainment and the Golf Channel.

The biggest concern facing regulators centers on what happens when one company owns both distribution platforms and content, said Stifel Nicolaus analyst Rebecca Arbogast.

Before approving America Online's purchase of Time Warner Inc. in 2001, for instance, regulators required Time Warner to offer online services other than just AOL on its high-speed cable internet network.

A key challenge in these types of deals, Arbogast explained, is ensuring that rivals in the subscription TV and broadband markets can still get access to popular program-



Comcast will own a vast media empire if the deal proceeds.

ming owned by the merged company.

Public-interest groups are especially concerned that a combined company could try to use its control over high-speed internet connections to favor its own media content on the web.

This would violate proposed "net neutrality" rules the Federal Communications Commission is considering. The rules would require broadband providers to give equal treatment to internet traffic. Last year, the FCC ordered Comcast to stop blocking subscribers from using an online file-sharing service called BitTorrent in a ruling that Comcast is challenging in court.

Public-interest groups also are concerned that Comcast could begin charging for Hulu and denying other online video sites access to its media content, because internet video might represent a threat to its core cable TV operations.

"There is little doubt that there would have to be significant concessions for this to pass regulatory muster," said Andrew Jay Schwartzman, head of the public-interest group Media Access Project. "It will be a long list before we're done."

Students spread the Google gospel

Web giant recruits college students to show their peers how to use Google apps for homework, exams

Dennis Carter, Assistant Editor

Taylor Bell, a Boise State University senior and self-described Google fanatic, landed his dream job this semester when the internet mega-site hired him as an ambassador, charged with evangelizing Google's array of applications to tech-hungry college students.

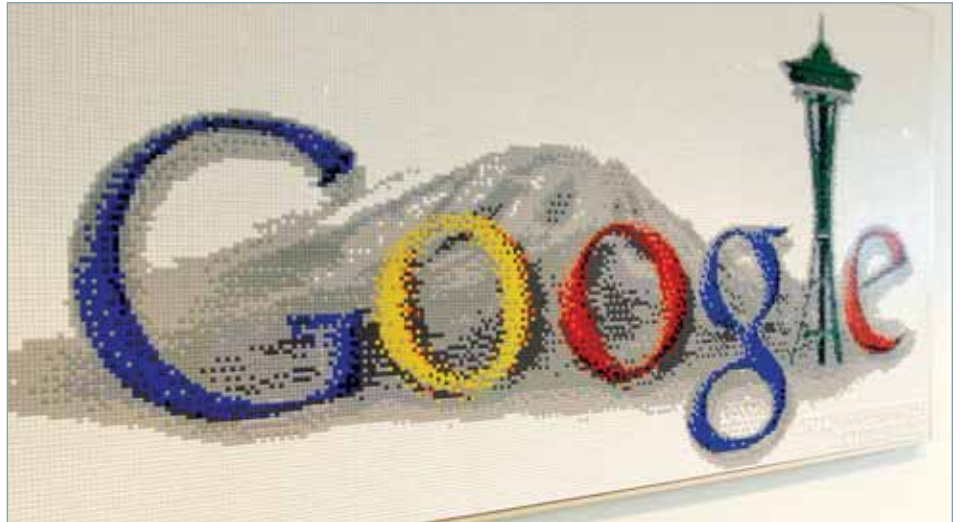
Google has such 121 ambassadors on 69 campuses nationwide after sifting through thousands of applications and awarding the company's first ambassadorships to students last year. The Google student representatives are not paid, but they are rewarded with free water bottles and T-shirts, said Miriam Schneider, a product marketing manager for Google.

Google delivers online tutorials to its ambassadors, showing what features they should pitch to students in on-campus meetings. Bell said a recent lesson he gave to a group of Boise State football players showed how they can collaborate in groups of up to 10 people using Google Docs, an application that lets students create a study sheet in real time in remote locations, for example.

"It kind of blows their minds a little bit," said Bell, 25, a communications major. "A lot of people didn't have any idea you could do some of these things. ... I don't think they realize how powerful some of these tools really are."

Schneider said spreading the word during major product rollouts like Google Wave—an application that allows for real-time communication using videos, maps, photos, and text—helps the company create tools that better cater to students, who often use Google products before the general public.

"We want [ambassadors] to really be foot soldiers on campus ... who are the



Student 'ambassadors' show their peers how Google's software can help them learn.

early adopters," Schneider said. "It's important for us to know exactly how students are using our products ... and to build a bridge between Google and the people who are actually using the products. For us, it really shapes the way the products are developed."

Google's student outreach isn't limited to the college campuses staffed with ambassadors. The company has launched a Twitter page, a blog, a Facebook page, and a YouTube channel all dedicated to communicating with students.

The company uses its blog (www.googleforstudents.blogspot.com) to push applications that can be useful in the lecture hall and during late-night study sessions.

On Nov. 17, a Google blog post trumpeted the launch of Google Sites templates, described as "pre-packaged sites that anyone can use to make creating your own web site even easier."

"This is especially valuable for students so that when you're making your site you can now skip a few steps, and instead of making a site from scratch, start with a template," the blog says. "You can use site

templates to organize, publish, and share information about your school, class, projects, fraternity or sorority, school club, intramural teams, or any other organization or event."

Google invited a handful of students, including Bell and Daniel Miller, a Google ambassador at the University of Washington (UW), to the annual EDU-CAUSE conference in Denver Nov. 3-6. Students manned the mammoth Google both on the conference exhibit floor and helped answer questions from passersby.

Miller said he has helped UW students create an exam study guide in Google Docs, a program they were only somewhat familiar with.

"I sort of walked them through it at first," Miller said, "and they took to it and really figured it out."

Being Boise State's Google go-to, Bell said, hopefully will evolve into a full-time, post-college job with the company.

"My passion for technology mixed with my love of continued education really connects with [Google's] message," he said. "I can't help but have a huge grin on my face whenever I talk about it."



For-profit colleges under scrutiny

Commercial schools accused of questionable recruiter-pay practices, lower standards, and high loan default rates among students

Dennis Carter, Assistant Editor

Officials at for-profit colleges and universities are combating a chorus of public criticism after accusations of shady student recruiter practices and a U.S. Department of Education (ED) report that showed twice as many students at for-profit schools have defaulted on their college loans compared with students attending nonprofit and public colleges and universities.

The mounting criticism comes as new research suggests for-profit colleges are gaining market share among online learners as the recession drives more people back to school.

Students who took out loans to pay for education at commercial institutions such as the University of Phoenix and DeVry

University had a 21-percent default rate within three years, according to the Dec. 14 ED report, which used data from students who began loan repayment in fiscal year 2007. For-profit schools' default rate in fiscal 2006 was 18 percent.

Overall, American college students defaulted at a 12-percent rate, up from 9 percent the year before.

The rising default rates could affect commercial universities' government funding. Starting in 2012, schools that have a 30-percent loan default rate won't be eligible for federal student aid programs.

For-profits hovering close to or beyond that 30-percent default mark include seven Kaplan University schools and 22 Everest College campuses, according to the government analysis.

Among the nation's largest institutions, the government data indicate a three-year default rate of 15.9 percent at University of Phoenix and 17.1 percent at DeVry University.

About 5 percent of colleges and universities evaluated in the ED report had loan default rates of 30 percent or more. Eight out of 10 of those schools were commercial colleges.

The data do not include private student loans, just government-backed loans.

Harris Miller, president and CEO of the Career College Association, an organization that represents for-profit colleges, said the jump in default rates is symptomatic of a severe economic recession.

...continued on page 16

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For-profit schools, he added, often accept more low-income students than public and nonprofit universities.

"If you accept low-income students, you're going to have high default rates," he said in an interview with the Associated Press. "It has nothing to do with whether you're for-profit or not."

For-profit recruitment practices draw fire

A day after ED released its report, Apollo Group Inc.—the University of Phoenix's parent company—agreed to a \$78.5 million settlement after a six-year

on the for-profit education industry and provide the American people with a clear picture of the true costs of education."

"The pattern of behavior reported is disheartening at best, and infuriating at worst," Cummings said in a statement posted on his web site. "At a time when our economy has afforded no luxuries to America's working classes, to find that for-profit institutions allegedly drew students in with disingenuous claims and sometimes outright fabrication, subjected them to onerous loans, and left them often unusable 'credits' is inexcusable."

A former University of Phoenix instructor based in Michigan said he wit-

"The quality of students declined precipitously when that happened ... and the educational experience really suffered," he said. "I had to spend a highly disproportionate amount of time with those students compared with other students. And that was detrimental for the really good students in my classes."

During his last year teaching Phoenix finance classes, the former instructor assigned students a project that involved analyzing a company's financial disclosure documents and—using graphs and charts—explaining if they would invest in the company.

// We're dumped into the same group with a cosmetology and truck driving school in inner-city L.A. With the economy getting bad, we don't think we're going to have a loan default problem? ... That's just not realistic." —Arthur Keiser, chancellor of for-profit Keiser University

court battle that started when former university employees filed a lawsuit claiming recruiters were paid based on the number of students they enrolled, a practice that violates federal law.

Apollo Group denied the plaintiffs' allegations, dismissing them as disgruntled former employees and claiming the school's recruiting practices were within federal guidelines.

"This agreement not only brings closure to a long-running dispute and enables the company to avoid the uncertainty and further expense associated with protracted litigation, it opens the door for a more constructive partnership with our lead regulator, the U.S. Department of Education," Charles B. Edelstein, Apollo's co-CEO, said in a statement.

The hefty settlement did little to quell public criticism. Congressman Elijah E. Cummings, D-Md., urged lawmakers to launch hearings to investigate common practices in publicly traded colleges and universities. A Congressional investigation, Cummings said, would "shine a light

nessed a gradual erosion of acceptance standards from 2000-06, when he taught online finance courses for undergraduate and graduate students.

The former teacher spoke to *eCampus News* on the condition of anonymity so he could detail his experience at the university without being identified by Phoenix officials.

During his first three years teaching Phoenix online courses, the former instructor said his classes consisted of about 10 students, most of whom were adult learners looking to earn a degree and supplement their resumes.

By 2004, the instructor said, the university's change in admission requirements made his class sizes balloon to 20 students. And many students were recent high school graduates who needed remedial courses or adults who did not speak fluent English.

The instructor said lesson plans had to be halted or delayed while he explained basic concepts and requirements to a handful of unprepared students.

He said two students who struggled throughout the semester simply printed out companies' disclosure papers and turned them in as their final project.

"The papers were 20 pages of plagiarized text that weren't even relevant or germane to the project," the one-time instructor said. "They just wanted to reach the page requirement."

The former instructor, who now works as a hiring manager, said if he reviewed a job applicant's resume that showed he or she had graduated from the University of Phoenix in the past five years, the applicant would instantly be crossed off his list of potential hires.

"I would not even consider them," he said. "The [University of Phoenix] program has been so watered down, it's not even close to what it used to be."

SEC probes Apollo's accounting practices

In late October, Apollo said the Securities and Exchange Commission

...continued on page 17

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(SEC) had launched an “informal inquiry” into its revenue accounting practices, its second SEC probe this year.

SEC inquiries often end without finding harm done by the company. Still, the probe comes at a time when ED is keeping an eye on the sector at large. In a Congressional hearing earlier in October, Mary Mitchelson, an inspector general of the Education Department, described investigations of different schools’ attendance-tracking and financial aid practices. She said the government would continue to pursue cases of “diploma mills” and eligibility exams.

In February, a separate division of the SEC said it was looking into Apollo’s revenue recognition practices. Nearly all of Apollo’s revenue comes from student tuition. Federal student loans from the government make up nearly 90 percent of the University of Phoenix’s tuition income.

The “revenue recognition” issue revolves around how Apollo determines when a student drops out of a class, the refund that student gets, and how much income Apollo can leave on its balance sheet, and for how long.

Apollo says it stops recognizing revenue when a refund is processed for a student that has dropped a class, according to attendance records—a “seemingly straightforward” method, said Morgan Stanley analyst Suzanne Stein.

The worst-case scenario would be an accounting restatement and fraud charges as a result of the inquiry, Stein said. She added that was unlikely, and also that there was “no reason” to think the inquiry would be expanded to the rest of the industry.

For-profit colleges defend practices, deflect criticism

Decision makers at well-known commercial college chains have countered mounting public skepticism by announcing new measures designed to trim the growing number of students defaulting on their loans after three years.

San Diego-based Bridgepoint Education, parent company for University of the Rockies and Ashford University, released a statement Dec. 8 that detailed plans to help students manage loan payments once they’ve left school or graduated.

The Bridgepoint plan includes “hiring additional internal administrative and experienced management personnel to assist students who have left the institution and are in repayment, as well as contracting with an external default management firm to implement a comprehensive student-default management plan.”

“By the time the three-year rates apply in 2012, we expect that the investments we have made and the organizational changes we have instituted will allow us to maintain” default rates under 30 percent, and therefore within federal funding guidelines, according to the company’s statement.

Bridgepoint’s Ashford University experienced a three-year rate jump from 6.1 percent to 17.4 percent.

For-profit school officials said the industry is unfairly criticized while public colleges avoid media scrutiny and condemnation from local and national lawmakers.

Arthur Keiser, chancellor of Keiser University, a family-owned chain of 13 campuses across Florida, said many four-year schools pay recruiters when they enroll international students—a practice not often brought to public attention.

“It’s a worry that the press is taking one lawsuit and making it a big issue,” said Keiser, the university’s chancellor for 30 years. “There isn’t a university in this country that doesn’t have multiple lawsuits going at the same time. It’s pretty easy to sue anybody.”

He added: “Incentive-based compensation has been used everywhere. And people just don’t understand the circumstances.”

The rash of negative publicity hasn’t damaged commercial colleges financially. Millions of Americans have returned to school during the economic downturn

that began in fall 2008, and many of them have turned to for-profit campuses.

The majority of the nation’s largest for-profits saw a 20-percent enrollment increase in 2009, according to industry analyses. DeVry University, which has 65,000 students on 90 campuses across North America, saw a revenue increase of more than 30 percent this year. The Illinois-based company said Dec. 8 that undergraduate enrollments rose 22.7 percent to 64,003, up from a 16.9-percent jump in 2008.

According to new data from research and consulting firm Eduventures Inc., for-profit colleges’ share of the online-learning market rose from 39 percent in 2008 to 42 percent in 2009, as the poor economy drove people—many of whom have families or other responsibilities—back to school.

Apollo Group’s stock shares rose by about 10 percent in the hours after the company’s legal settlement was announced. That increase came on the heels of a 45-percent third quarter jump in profits.

For-profit institutions, Keiser said, are too often “bunched into one big group” with career training schools whose students have some of the highest default rates in the country, distorting the image of reputable commercial campuses that abide by federal rules.

“We’re dumped into the same group with a cosmetology and truck driving school in inner-city L.A.,” he said. “With the economy getting bad, we don’t think we’re going to have a loan default problem? ... That’s just not realistic.”



Federal Student Aid Data Center
<http://federalstudentaid.ed.gov/datacenter/index.html>

University of Phoenix
<http://www.phoenix.edu>

Today's lesson: Developing iPhone apps

Colleges and universities are using iPhone applications to teach students how to create useful technology

Dennis Carter, Assistant Editor

Stetson University computer science professor Daniel Plante recently oversaw the development of an iPhone application created for students, by students.

Last year, 12 Stetson sophomores enrolled in Plante's Introduction to Software Development course were told to create an iStetson app from scratch—meaning the students would have to canvas their campus to see what features their peers would use in an iPhone program.

After extensive interviews with students and campus officials, the dozen rookie software developers created an app that shows the campus commons menu,

allows access to campus events and class listings each semester, and lets students find other iStetson users using the iPhone's GPS capabilities.

Plante said the semester-long iPhone project was an ideal exercise for fostering an engaged, active learning environment.

"My philosophy with teaching this class is that students do better when they actually do [something], rather than be passive learners," said Plante, who will incorporate iPhone application construction into the spring 2010 curriculum. "We wanted to introduce something ... that had the students doing the majority of the decision making."

In developing the iStetson app, Plante's students joined a growing community of college students who have created a slew of mobile applications for smart phones in recent years. University of Southern California graduate engineering students, for example, created an iPhone application last year that gives users access to 6,300 radio stations worldwide for 99 cents. And a Carnegie Mellon University graduate student developed an app that gives control of a person's personal computer from anywhere in the world.

iStetson was released in July and approved by Apple in October. It's avail-

...continued on page 19



...continued from page 18

able free of charge in the Apple Apps Store online.

To develop the application, Plante's students received iPhones paid for by the Deland, Fla.-based school. AT&T provided \$10,000 for phone service and computer hardware for the student developers, and Apple donated laptops for the computer-science course.

Matt Wozniak, a student in Plante's first iStetson class, said students were accustomed to demanding course projects that took a few weeks to complete. But ironing out every logistical and technical detail of creating useful software, he said, was demanding for the second-year undergraduates.

"We had never done anything remotely close to this kind of scale," Wozniak said. "It was just a constant learning experience for every one of us."

Bill Penney, the university's associate vice president and chief technology officer, said he wanted to incorporate iPhone application development into computer-science courses after he met Stanford University students who created the popular iStanford app.

Two Stanford students made an application that allowed for online tuition payment, access to faculty contact lists, and campus maps, along with many other features. The same students started a company called Terriblyclever, which was sold to software giant Blackboard in July for \$4 million.

"[Meeting] those students is ... what got me jazzed about doing the same thing here [at Stetson]," Penney said.

Downloading iStetson could prove useful for university students fulfilling cultural credits. Students can earn these credits by attending jazz festivals, art shows, and a number of other events that get students involved in the local community. The iStetson app alerts users to upcoming events that would help satisfy the school's cultural credit requirement, Wozniak said.

Students focused on useable features in the creation of iStetson, he said,

rather than wowing users with high-tech graphics.

"You can build the most technically ... amazing app in the world, but if it doesn't have good features, nobody will use it," he said.

Not all campus-based iPhone entrepreneurs have hailed from graduate and doctorate programs. Deepak Mantena, a University of Mississippi computer-science major, made an iPhone app in 2007 that created a to-do list and offered vocabulary lessons, among other features. Mantena later launched his own company, called TapeShow.

Students do better when they actually do [something], rather than be passive learners."
—Stetson University computer science professor Daniel Plante

A Texas State Technical College undergraduate recently released his Spacewalk 3D iPhone app, which gives users a first-person playing experience. The app sells for \$1.99 in the Apple App Store.

While college students have supplied the Apple store with a range of useful apps, higher-education faculty members also have designed iPhone programs geared for a student audience. The Exambusters app, for example, was created by educators and contains a test bank of sample exam questions organized into sections of flashcards. The Exambusters apps range from geometry to American history to chemistry, along with dozens of language courses.

An app called Wiki Mobile puts the popular online encyclopedia Wikipedia at students' fingertips—a critical tool for research and on-the-spot references during class or a late-night study session.

For students who need a graphing cal-

culator, but don't want the shell out \$100 for the device, iPhone apps can provide the same tool for about \$5. There are several graphing calculator apps for the iPhone, complete with fully functional tools. There are also an array of apps that give instant access to the periodic table and a collection of complex chemistry formulas.

When professors don't use lecture-capture technology in their lecture halls, iPhone apps designed to record sound could be valuable for students who don't want to rely on scribbled notes when studying for quizzes and midterm exams. A student can record the day's lesson and make personal audio notes.

iPhone apps can be a grade saver for students who never got around to reading the novel assigned in their English class. A free app called Sparky connects students to SparkNotes, or abbreviated overviews summarizing popular texts usually assigned in high school and introductory college classes. Complete with character analysis and chapter and plot summaries, accessing Sparky could be a last-ditch effort to prepare for an English final exam.

Wozniak said creating iStetson was never considered a business venture, but the lessons learned in the four-month assignment could be invaluable for students hoping to capitalize on their app-making experience.

"I never had any expectations to make any money from it," he said. "But it certainly opened the door if any of us want to go down that path and get into mobile development."



HOT LINKS

iStetson
<http://www.appstorehq.com/istetson-iphone-79445/app>

Stetson University
<http://www.stetson.edu/home/>

iStanford
<http://istanford.stanford.edu/>



R2D2: An ed-tech model that computes

'Read, Reflect, Display, and Do' can help instructors leverage the internet's potential to help students learn

By **Curtis J. Bonk**

"We're doomed."—C3PO to R2-D2
Frustrated. Challenged. Excited. Passionate. Overwhelmed. Opportunities. Waiting. These are the things I hear when I ask college professors around the world for two or three words to describe the use of web technologies in their classes. It does not matter if I am in Thailand, Taiwan, or Transylvania: I hear the same words. Many view technology as simultaneously a transformative tool for teaching and learning and one that should be avoided where possible. That is not surprising, given the barrage of new technologies to consider

since the start of the millennium—including wikibooks, podcasting, Twitter, Second Life, digital books, open educational resources, shared online video, Facebook, and much more.

During the past two decades, I have designed several models and frameworks to help college professors sort through their options. The Read, Reflect, Display, and Do (R2D2) model is one such framework. While some look at it as a learning-style model, it is intended as a problem-solving wheel that represents phases of learning—from reading and exploration, to reflective writing, to visualization of the content learned, to attempts to try it out.

R2D2 is also a means to help instructors consider diverse learner needs. At its core, it is also a tool for reflecting on one's teaching practices. The four phases are described below.

Phase One: Read

The web contains countless resources for reading, researching, and listening. You can have your students discover and read online articles from open-access journals, expert web sites, or online portals of famous scientists like Albert Einstein, Jane Goodall, or Charles Darwin or writers like William Shakespeare, Jane Austen, or

...continued on page 21

Special Feature

...continued from page 20

Edgar Allan Poe. There are tens of millions of online documents to read, discuss, debate, juxtapose, connect, compare and contrast, and perhaps turn into something totally different. Your students might also download and read scores of free eBooks made available by Google, the Internet Archive, ManyBooks.net, Bookyards, and others. Instead of reading from experts, students also might listen to podcasts that relate to course content. Some professors are currently pushing the edges of the risk continuum in this phase of the R2D2 model by using Twitter as a teaching tool. For example, students might be assigned to track the activities of a world-famous person who tweets.

Phase Two: Reflect

A natural next step is for students to blog about the concepts or ideas that they learned from their reading or listening activities. Such blogging might be done individually or in teams. Critical friends within the class or experts outside it might provide feedback on their blog posts. Your students might also read or track the blog posts of experts that relate to the topic of a class or program of studies. To push beyond the instructor as the sole source of knowledge, they might watch and reflect upon keynote speeches and the teachings of other participants from online conferences. Your students might also reflect on cases or scenarios that are posted online.

Phase Three: Display

The third phase involves pictures, timelines, flow charts, diagrams, and films. Such resources can now be found online in nearly any discipline. There are timelines of U.S. presidents, flash animations of cash flow principles, simulations of chemistry experiments, or stunning overviews of statistical procedures. Pubcasts from SciVee bring your students into the world of scientists. They can see and hear from the people who wrote the articles they have read. Shared online videos posted to YouTube,



This diagram depicts the R2D2 model for ed-tech integration.

TeacherTube, FORA.tv, Link TV, CNN Video, Google Videos, NASA TV, TV Lesson, and other such places provide tremendous video content to help clarify or explain key course concepts or principles in visual ways. Medical animations in YouTube or Second Life can add to such visual richness. Using such online video content can anchor instruction in content that students can rewatch many times. The web also allows for knowledge mapping of key concepts using free tools like Gliffy, Bubbl.us, Mindomo, or MindMeister. Digital libraries and museums like the new United Nations World Digital Library and the Civil Rights Digital Library provide thousands of pictures, diagrams, and other visual images that students can explore. There is no shortage of visual content today, and it will only increase. Ten years from now, visual content may represent the bulk of course resources.

Phase Four: Do

The internet provides many paths to try out course content in a safe harbor. Your students can perform plays in Second Life. They can practice their language skills in Mixxer, Babbel, KanTalk, or Livemocha. They can collect survey or polling data with dozens of different tools and collaboratively analyze and share their results using Google Docs. Similarly, real-world data from corporations or nonprofit organizations might be analyzed and reports generated. Beyond simple reports or term papers, they might also compose their own books in Wikibooks or create class projects such as a glossary in a wiki (e.g., PBworks or Wikispaces). Students might also produce their own podcasts or podcast series or YouTube-like videos related to course content. They can also solve problems or simulations online.

...continued on page 22

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“R2-D2, where are you?” –C3PO

The figure on page 21 depicts the R2D2 model. To use the model, you do not have to go in order of each phase or use them all. While the arrows indicate direction in the use of the model, online activities could actually cycle in the opposite direction.

“R2-D2, it is you, it is you!”

–C3PO to R2-D2

Hopefully, you can use this model or something similar. You might even recognize it in your own teaching. Without models, frameworks, and guidelines, instructors utilizing the web for learning will continue to be overwhelmed, frustrated, and perhaps feel that they are doomed.

“Excuse me sir, but that R2-D2 is in prime condition, a real bargain.”

–C3PO to Luke

R2D2 is one pedagogical approach for web tools and resources. One model. One idea. I have personally witnessed wonderful results from Singapore to Spain to Saudi Arabia. Perhaps you can, too.

Curtis J. Bonk is Professor of Instructional Systems Technology at Indiana University. He has a popular blog called *TravelinEdMan* and is the author of *The World Is Open: How Web Technology Is Revolutionizing Education; Empowering Online Learning: 100+ Ideas, for Reading, Reflecting, Displaying, and Doing; and The Handbook of Blended Learning: Global Perspectives, Local Designs*.

Bonk, C. J. (July 2009). *The World is Open: How Web Technology is Revolutionizing Education*. San Francisco: Jossey-Bass, a Wiley imprint. (<http://worldisopen.com/>)

Bonk, C. J., & Zhang, K. (2008). *Empowering Online Learning: 100+ Activities for Reading, Reflecting, Displaying, and Doing*. San Francisco: Jossey-Bass.



HOT LINKS

Babbel
<http://www.babbel.com>

Bookyards
<http://www.bookyards.com>

Bubbl.us
<http://bubbl.us>

The Carlyle Letters Online
<http://carlyleletters.dukejournals.org>

Civil Rights Digital Library
<http://crdl.usg.edu>

CNN Video
<http://www.cnn.com/video/?iref=videosearch>

Complete Works of Charles Darwin Online
<http://darwin-online.org.uk>

The Complete Works of William Shakespeare
<http://shakespeare.mit.edu>

Edgar Allan Poe Society of Baltimore
<http://www.eapoe.org>

Einstein Archives Online
<http://www.alberteinstein.info>

Facebook
<http://www.facebook.com>

FORA.tv
<http://fora.tv>

Gliffy
<http://www.gliffy.com>

Google Books
<http://books.google.com/books>

Google Docs
<http://docs.google.com>

Google Videos
<http://video.google.com>

The Internet Archive
<http://www.archive.org>

Jane Austen
<http://www.janeausten.org>

The Jane Goodall Institute
<http://www.janegoodall.org>

KanTalk
<http://www.kantalk.com>

Link TV
<http://www.linktv.org>

Livemocha
<http://www.livemocha.com>

ManyBooks.net
<http://manybooks.net>

MindMeister
<http://www.mindmeister.com>

Mindomo
<http://www.mindomo.com>

Mixer
<http://www.language-exchanges.org>

NASA TV
<http://www.nasa.gov/multimedia/nasatv/index.html>

PBworks
<http://pbworks.com>

SciVee
<http://www.scivee.tv>

TeacherTube
<http://www.teachertube.com>

TV Lesson
<http://www.tvlesson.com>

Twitter
<http://twitter.com>

Wikibooks
http://en.wikibooks.org/wiki/Main_Page

Wikispaces
<http://www.wikispaces.com>

United Nations World Digital Library
<http://www.wdl.org/en>

YouTube
<http://www.youtube.com>

engage online

Immediately connect with students and set your school apart with interactive CodeBaby® characters.

- ✓ Optimize student admissions, advising and retention.
- ✓ Represent your school personality.
- ✓ Build rapport with today's digital natives.

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Geothermal trend heats up on college campuses

From staff and wire reports

While solar and wind power get most of the headlines, geothermal power is quietly gaining traction on college campuses where energy costs can siphon millions each year from the budget.

Schools from Wisconsin to New Mexico have geothermal projects in the works. There are 46 schools divvying up millions in federal stimulus dollars to advance technology that uses the temperature of the Earth, rather than coal-fired power plants, to heat and cool buildings.

So far this year, the Department of Energy has announced \$400 million in grants to advance geothermal projects like those under way on several campuses.

Geothermal technology has been around for decades, it works, and it's increasingly affordable. At colleges that must maintain dozens of large buildings, the savings are magnified.

Those involved in the decision to pursue geothermal technology say they wanted to use less coal-fired power, although the schools also had to save money to justify the move.

The technology is a natural fit for schools like Boise State that sit atop geothermal springs. The school recently announced it expects to save as much as \$80,000 per year in heating costs by doing so, and even more as the project expands. Yet schools in the Midwest and East are also turning to geothermal power using a different type of technology.

A typical geothermal system works like this: On a warm day, the system draws heat from a hot building and pumps it underground where the soil absorbs it. On a cold day, the process reverses—the system extracts heat from the earth and returns it to the building.

The process is so efficient that even though the underground temperature remains about a constant 55 degrees, the system can be used to chill water to 45 degrees or heat it to 170 degrees.

“That makes heating and cooling a whole new ball game,” said Robert J. Koester, a Ball State University architecture professor overseeing one of the nation's most aggressive installations.

The Muncie, Ind., campus is upgrading all of its 45 buildings to geothermal technology, at a cost of \$65 million to \$70 million. The state contributed about \$40 million, and because the system is expected to cut energy costs by \$2 million per year, it should pay for itself in 12 to 15 years.

Students have been advocating for a shift in campus energy sources for years. The increased investment in geothermal comes as students have launched a national campaign intended to pressure schools into using less energy from coal-fired power plants. Students began protests earlier this year, specifically targeting 60 campuses that have their own coal-burning power plants.

There are several variations of geothermal installations. A common version involves drilling a series of holes, each about as wide as a beer mug, to a depth of 300 to 400 feet. An electrically powered compressor and fan help distribute the heat into and out of the holes.

However, the technology might not be the best choice for every school.

Urban schools might not be spacious enough to install the pipes where they can be accessed easily for maintenance and repair, said William C. Johnson, a board member at Second Nature, a Boston-based nonprofit that focuses on sustainability in higher education. There can also be unforeseen regulatory issues that can drive the initial cost higher.

// *[Geothermal technology] makes heating and cooling a whole new ball game.”*

— Ball State University architecture professor Robert J. Koester



Energy Department's
Geothermal Technologies
Program
[http://www1.eere.energy.gov/
geothermal](http://www1.eere.energy.gov/geothermal)

Second Nature
<http://www.secondnature.org>

Free online tools simplify research

Dennis Carter, Assistant Editor

Mohan Singh once had the painstaking job of compiling bibliographic information for a professor, so finding a web-based program that collected and inserted research citations with the click of a mouse was a time-saving godsend for the University of Maryland graduate student.

Singh discovered Zotero, a tool created by George Mason University's Center for History and New Media that allows researchers and students to drag and drop web page references into a massive, searchable database.

Zotero, an open-source program first launched in 2006, automatically creates in-paper citations, footnotes, and a bibliography at the end of a research paper—a mistake-prone process that usually adds hours to a college project.

"There are so many errors that come up in creating [research references] that people don't think about," he said.

Reference management software has been available for more than 20 years, but those programs often were pricey and required IT know-how, whereas tools such as Zotero and iCyte—a program that lets users save and share online research material in the virtual "cloud"—are free and made for a broader web-using audience.

Zotero, available in more than 30 languages, adapts to almost any kind of citation required by a professor, offering thousands of styles for students to choose from, said Dan Cohen, director of George Mason's Center for History and New Media and co-author of *Digital History: A Guide to Gathering, Preserving, and Presenting the Past on the Web*.

Zotero has been downloaded more than 2 million times after starting three years ago with 10,000 users, Cohen said.

Zotero detects when a user is perusing a digital library such as Google Scholar or PubMed, and with one mouse click, the stu-

dent or faculty member can save all reference information for that publication or article. If the writer uses a part of that text in a research paper, for example, Zotero instantly formats a citation as a footnote, endnote, or bibliography item.

Simplifying the tedious citation process, Cohen said, is often popular with students and college faculty, but Zotero's private groups feature also helps students improve their research through collaboration.

"Everything is automated," Cohen said, "and students are taking advantage of it. ... We're proud of [Zotero's] global impact."

First-generation computer reference tools included BibTex, a program created in 1985 used mostly by researchers with some knowledge of writing code.

Singh, who created research references for an economics professor, said he was familiar with BibTex and other early reference programs, but he recently did a web search for simpler online reference generators.

iCyte, a reference tool that requires customers to use Internet Explorer or Firefox 3, allows users to save web pages as they appear, even if the web site or specific page of origin is altered or deleted. iCyte saves the web link and the image of the page itself.

The program preserves just part of a page—a few paragraphs of text, for example—if only a section of the page is highlighted and saved. The saved information can be tagged with descriptions or phrases written by the user. Zotero has the same function, and users can search the program's database for descriptions and metatag keywords they've attached to research documents.



“There are so many errors that come up in creating [research references] that people don't think about.”

—University of Maryland graduate student Mohan Singh



Zotero
<http://www.zotero.org/>

iCyte
http://www.icyte.com/users/activity_public



// *Using a mix of learning approaches, we can use technology to make learning more accessible to a wider range of students."*

—Ruth Rominger, director of learning design for the Monterey Institute for Technology and Education

WEB HOT LINKS

Bill and Melinda Gates Foundation
<http://www.gatesfoundation.org/Pages/home.aspx>

National Center for Academic Transformation
<http://www.thencat.org/index.html>

American Association of Community Colleges
<http://www.aacc.nche.edu/Pages/default.aspx>

Ed-tech grants target remedial college courses

Dennis Carter, Assistant Editor

Social networking soon could be used to help form a virtual community of campus educators charged with creating a national certification for teachers of remedial college courses, after the Bill and Melinda Gates Foundation announced \$12.9 million in new education technology funding for community colleges Dec. 3.

The funding will be spread through a host of higher-education programs, according to the foundation's web site—but a central goal will be boosting remedial education for students entering college without math and reading skills to meet basic requirements.

More than 60 percent of students in community colleges need some kind of remedial class—most often, math training—before they can take credit-bearing courses, according to recent studies. This comes with a price tag: A study published this summer shows that community colleges spend more than \$1.4 billion on remedial courses every year.

The Gates Foundation has earmarked \$3.6 million of the grant money to be used for training remedial instructors. A group of 26 college faculty from 16 states will forge an online community aiming to boost the number of educators teaching remedial lessons in two-year schools.

"Using a mix of learning approaches, we can use technology to make learning more accessible to a wider range of students," said Ruth Rominger, director of learning design for the Monterey Institute for Technology and Education (MITE). "We can create learning environments that let students work through the courses in a way that is suitable for their learning styles."

George R. Boggs, president of the American Association of Community Colleges, said offering a financial lift to programs and groups that lay the educational groundwork for remedial students would help tackle an increasingly common problem in community colleges.

"The investment announced ... by the Bill & Melinda Gates Foundation addresses two of the most urgent challenges confronting community colleges today: how to improve success rates for the millions of underprepared students who come through their doors, and how to harness the power of technology to expand capacity and enrich the learning process," Boggs said in a statement.

The Gates Foundation also will allocate \$5 million for the development of new remedial math learning material that will be freely available to students and teachers through the web site www.HippoCampus.org.

Carnegie Mellon University's Community College Open Learning Initiative will receive \$2.5 million for the development of web-based open learning platforms for "gatekeeper courses," or introductory-level classes that students must pass to enter a field of study.

With community college classrooms filling up during the current economic downturn, these gatekeeper courses are more popular than ever, and many students are left on lengthy waiting lists, forced to delay their education.

The New York-based National Center for Academic Transformation (NCAT) will get \$1.8 million to help community colleges redesign remedial math classes that lack sufficient technology integration. Previous course redesigns at NCAT partner institutions have resulted in an average 51-percent increase in course completions and an average 37-percent reduction in instructional costs.

College officials said they've always expected adults returning to school to require remedial classes, but an old phenomenon is becoming an escalating problem: Recent high school graduates coming to campus often lack basic skills in algebra.

"We're getting more students in remedial courses ... because math is one of the most prominent obstacles for student success," said Boggs. "It's not something [adult learners] tend to recall as easily as other subjects."

Student ordered to destroy downloaded music files

From staff and wire reports

A graduate student who must pay four record labels a combined \$675,000 in damages for downloading and sharing songs online has been ordered to destroy his illegal music files—but a judge declined to force him to stop promoting the activity that got him in trouble.

Joel Tenenbaum, a Boston University student from Providence, R.I., was ordered on Dec. 7 to refrain from future copyright violations and to destroy copies of recordings he downloaded without authorization.

Record companies wanted U.S. District Judge Nancy Gertner to go further. They claimed Tenenbaum has been encouraging people to visit a Swedish web site where they can illegally download the songs he was sued for sharing.

Tenenbaum said he had nothing to do with the web site, and Gertner said she would not attempt to silence Tenenbaum's criticism of the recording industry and copyright laws.

Tenenbaum said he was pleased with the judge's decision.

"She said, look, this isn't your business, he can say whatever he wants about the issue, he has First Amendment rights," Tenenbaum said.

Cara Duckworth, a spokeswoman for the Recording Industry Association of America, said the group was satisfied that the judge required Tenenbaum "to destroy all illegal music files and refrain from further theft of our music."

In July, a federal jury in Boston ordered Tenenbaum to pay \$675,000 to four record labels for downloading and distributing 30 songs. In her Dec. 7 order, Gertner affirmed the jury's decision.

Tenenbaum's attorney, Harvard Law School professor Charles Nesson, said he plans to file a motion for a new trial by Jan. 4.

In a separate memorandum released Dec. 7, Gertner described her reasons for rejecting Tenenbaum's "fair use" defense before the case went to trial in July.

Fair use is a legal doctrine that recognizes that the monopoly rights protected by copyright laws are not absolute. The doctrine holds that when someone uses a creative work in way that does not hurt the market for the original work and advances a public purpose—such as education or scholarship—it may be considered "fair" and not infringing.

Gertner said Tenenbaum acknowledged that a purpose of his song-sharing was so that his friends could enjoy the music—"that is, the very use for which the artist or copyright holder is entitled to expect payment as a reward."

Gertner said that although Tenenbaum's case does not constitute fair use, she could envision a fair-use defense for someone who shared files only during a period before the law concerning file-sharing was clear and before legitimate download services were widely available. She urged Congress to consider changing copyright law. The judge wrote that "there is a deep potential for injustice in the Copyright Act as it is currently written."

"There is something wrong with a law that routinely threatens teenagers and students with astronomical penalties for an activity whose implications they may not have fully understood," Gertner added.

Duckworth said the industry disagrees with Gertner's assessment.

"Judge Gertner's hypothetical statements on fair use are not supported in the law, and courts have routinely rejected this theory since it would essentially strip copyright owners of the important right to control the use of their work," Duckworth said. "Regardless, it wouldn't apply to Mr. Tenenbaum, who admitted to illegally downloading music long after iTunes and other services emerged."



There is something wrong with a law that routinely threatens teenagers and students with astronomical penalties for an activity whose implications they may not have fully understood."

—U.S. District Judge Nancy Gertner



HOT LINKS

Judge Gertner's Dec. 7 memorandum (PDF)
<http://pacer.mad.uscourts.gov/dc/opinions/gertner/pdf/tenenbaumfairusedec7th09finalng.pdf>

Recording Industry Association of America
<http://www.riaa.com>



Text-a-Tip programs help promote school safety

From staff and wire reports

After struggling for years with an anti-snitching culture that made witnesses to crimes or potentially dangerous behavior too afraid to come forward, police across the country are getting help from text-a-tip programs that allow people to send anonymous text messages from their cell phones—and in many cases, the programs have been used to enhance school and campus safety.

Campus police at the University of Southern California in Los Angeles, for example, have used a text-a-tip service to help patrol football games that can attract more than 100,000 rowdy spectators.

“We get tips like ‘three guys who are non-students are being rude and obnoxious behind us,’ ‘someone is cutting in line at the student gate,’” said Carey Drayton, chief of USC’s Department of Public Safety. “Those are things that could turn into fights. We are trying to stop things before they get too big.”

In Boston, the first city to heavily promote texting for crime tips, police have received more than 1,000 tips since the program began two years ago. Police credit text-based tips for providing them with key leads in at least four high-profile killings.

In the past, people feared retaliation for talking to police, but with the texting programs, police never see the tipster’s name or telephone number. The text messages are sent to a separate, third-party server, where identifying information is stripped out and they are assigned an encrypted alias before being sent to police.

Texting programs have caught on across the country. The exact number is hard to pinpoint, but Anderson Software, one of the

leading providers of technology for text-a-tip programs, has at least 400 law-enforcement agencies as clients, including Tucson, Ariz., Savannah, Ga., Hartford, Conn., San Diego, Seattle, and Miami.

Company founder Kevin Anderson said text-a-tip programs are rapidly gaining popularity and soon could become as popular as anonymous web tip programs, which have been around for about five years.

“You want to provide the means of communication people are most comfortable with, and right now, texting is the more comfortable means of communicating for young people,” Anderson said.

The system allows a tipster to send a text message of up to 160 characters to police, who are then able to send text messages back to the sender to ask follow-up questions.

Officer Michael Charbonnier, who oversees the program in Boston, said police use the tips as leads and have to corroborate the information given by tipsters, so the tipsters themselves aren’t called to court to testify.

Boston police say the anonymous nature of the text-a-tip service, combined with police foot and bicycle patrols in violent neighborhoods, has helped them build trust with people and put a dent in the anti-snitching attitude that was prevalent for years. Five years ago, some court spectators even wore “Stop Snitchin’” T-shirts to the trial of two men charged in the shooting death of a 10-year-old girl.

“We’ve made a significant amount of progress in connecting with the community,” said Police Commissioner Ed Davis. “That makes a big difference when you’re dealing with the whole snitching situation.”

// *You want to provide the means of communication people are most comfortable with, and right now, texting is the more comfortable means of communicating for young people.*

—Kevin Anderson, founder of Anderson Software



Anderson Software
<http://www.tipsoft.com>

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