

By Dennis Pierce Editor in Chief @eSN Dennis

Powering the Mobile Campus

Today's students expect access to information at the swipe of a finger.

Here's how some universities are responding.

Jordan Maynor, a freshman at Southern Illinois University (SIU), was one of 2,700 incoming students to get a tablet computer from the university when he set foot on campus this fall.

The 19-year-old from Mount Vernon Township, Ill., says he uses the device every single day. He uses it to take notes in class, and to get instant information about campus events.

"I can even see when my laundry is done on it," he said. "It's been extremely helpful to me so far."

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This eCampus News Special Report is made possible with financial support from Verizon Communications Inc. **Verizon.com/Education**

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Like Jordan, who owned a smart phone before enrolling at SIU, the students entering college today are too young to remember a time when they could not connect, communicate, and explore instantly—from wherever they might be, at all hours of the day—using a smart phone, tablet, or other mobile device.

These "digital natives" expect the same kind of access to information in the palm of their hand when they arrive on campus—and college and university officials know they must respond to this demand if they want to attract and retain students.

Having mobile access to key campus services is "the deciding factor for a lot

of students" in choosing a college, said David Crain, assistant provost and chief information officer for SIU.

A 20,000-student public research university in Carbondale, Ill., SIU gets many of its students from the nearby Chicago Public Schools, Crain said. Because Chicago's K-12 school system has made a substantial investment in tablet computers for its instructional programs, its graduates are becoming accustomed to learning on the go.

"We believe tablets and eTexts are the wave of the future," Crain said, "and we want to be on the front of that wave."

With that goal in mind, SIU distributed tablets and electronic textbooks to 2,700 incoming freshmen this fall as part of its Mobile Dawg project.

The university also created a suite of



"Colleges and universities are clearly playing catch-up with the consumer experience," said Casey Green, director of the Campus Computing Project. "Students come to campus with their smart phones and tablets, expecting to use mobile apps to navigate campus resources and use campus services." mobile apps to help integrate the devices into all phases of campus life, Crain said; students can use these apps to find the nearest bus routes, see what's on the menu at each dining hall, and even check which laundry facilities have machines available.

Support for mobile devices on the rise

SIU isn't alone in developing a mobile strategy to meet students' needs. According to the 2013 Campus Computing Project survey, which polled more than 450 higher-education technology leaders in September and October, implementing and supporting mobile computing is among the top five priorities for campus IT departments—and tablets and smart phones have overtaken laptops in terms of importance for IT planning.

The survey also pointed to significant gains in the percentage of colleges and universities that have activated mobile apps. Four-fifths (79 percent) of the schools taking part in this year's survey have done this as of fall 2013 or will do so this academic year, compared to three-fifths (60 percent) in fall 2012.

Private universities are leading this charge, according to the survey: 95 percent will have deployed mobile apps by the end of the school year, followed by 93 percent of public universities, 85 percent of public four-year colleges, and about 70 percent of private four-year colleges and community colleges.

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The shift in focus from laptops to tablets and smart phones suggests that campus IT leaders are trying to anticipate future needs, Green added, by "skating to where the digital puck is going."

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Across the nation, colleges and universities are responding to this challenge in many ways. Consider:

- Quinnipiac and Tulane universities are working with Blackboard on a pilot project that allows students to use their mobile phone instead of their campus ID card for a variety of campus transactions. Students from these pilot schools will wave their smart phones in the vicinity of a Near Field Communication (NFC)-enabled reader for access to dorms or athletic events, buying meals or other goods, and transactions such as vending, laundry, copying, and printing (see sidebar, below).
- Maryville University in St. Louis has developed a campus app for enrollment that engages with prospective students in a number of ways. The app had more than 800 downloads in its first month, said Shani Lenore-Jenkins, Maryville's associate vice president for enrollment. She added: "It's giving [prospects] content the way they want it, when they want it."
- The 20 Million Minds Foundation, in partnership with Inkling, has launched interactive versions of two open digital textbooks that students can access on their iPads and iPhones, with Android versions coming soon. The eTextbooks, "Introduction to Sociology" and "College Physics," come from the OpenStax College project at Rice University, and any

notes or highlights that students add to the files will accompany them automatically, regardless of what device they use to access the text.

Engaging with prospects

Maryville University, which serves about 2,000 traditional students and 5,000 students overall, has had a mobile app for a few years. But this year, "we became more strategic, looking at how we could use it to help with enrollment," Lenore-Jenkins said.

When researching colleges and universities, prospective students typically don't like to give out their personal information, she said, for fear of being marketed to. That can make it hard to engage Mobile Campus, page 22

Blackboard transforms mobile devices into student IDs

Jake New

Assistant Editor

One ubiquitous college student staple is set to replace another this year as Blackboard Inc. attempts to turn mobile devices into campus ID cards.

Students at many campuses already can use their mobile devices to check bus schedules, submit their homework, and receive emergency notifications.

Blackboard's new pilot program would enable students to use their devices for a laundry list of other tasks including laundry.

The learning management system company's program, called Blackboard Transact, is being piloted at Quinnipiac University and Tulane University.

Students who have downloaded the app can open doors, pay for campus meals, purchase items in vending machines, and use copiers and printers, all with the wave of a smart phone.

"Campuses are going mobile, and we wanted to leverage this reality by giving students a seamless experience to navigate campus with a mobile credential," said John Meriano, associate vice president for auxiliary services at Quinnipiac University.

Blackboard is marketing the app as the "industry's first native NFC mobile campus credential."

That means the app utilizes device readers that use what's called "near field communication" to sense the mobile devices when they are close by. As the app is taking advantage of the NFC capabilities built inside phones, the app doesn't have to be active for a transaction to be completed. In fact, the device doesn't have to be turned on or even have any battery life left.

Blackboard has been quietly working on the technology since 2008, and the company began installing NFC-compatible hardware devices on campuses in 2010.

While this pilot program will run through May, other universities might end up taking advantage of the app much sooner, as those same devices are already installed on more than 250 campuses.

Helping students manage their lives on a physical campus is a shift for Blackboard, which primarily has been confined to helping students manage their educational lives online.

"The student world is a mobile world, accelerated by the proliferation of mobile learning and BYOT [bring your own technology]," David Marr, president of Blackboard Transact, said in an announcement. "Mobile devices are core to the educational experience. It is only logical to extend that core to the student credential, rather than asking students to carry and manage multiple credentials and form factors when trying to navigate the campus environment."

Follow Jake New on Twitter at @eCN_Jake. Join the conversation with #eCNMobile.



ATTRACTING AND RETAINING THE BEST AND THE BRIGHTEST

WIRELESS TECHNOLOGY IS THE KEY TO CREATING ACCESSIBLE, ENGAGING AND RELEVANT LEARNING EXPERIENCES.

Today's hyperconnected students are tomorrow's innovators—future CEOs, scientists, engineers and doctors. To help more students earn a college degree that prepares them to join a globally connected workforce, colleges and universities are turning to innovations powered by wireless technology.

By integrating wireless technology into the institutional infrastructure, schools can deliver an engaging balance of in-person instruction and online interactions, creating a multidimensional educational environment that supports a variety of learning styles. Wireless technology can also help enrich the on-campus experience, helping students become more engaged and motivated.

84%

of students would like blended learning technologies offered in more of their courses.*

Designing a Blended Learning Environment.

Online courses, digital textbooks and video help students and institutions save money. Plus, they provide a new level of connectivity and convenience. At the same time, they empower educators to extend the school's reach beyond the lecture hall, offering more students access to learning and resources.

However, a seven-year study by the University of Central Florida (UCF) found that blended courses, which combine face-to-face instruction with online education, have the potential to increase student learning while lowering attrition rates, compared to equivalent onlineonly courses.

By blending digital offerings with traditional classroom curriculum, universities have the opportunity to stand apart from their competitors, building a solid reputation while attracting and retaining more students.

Engaging Digital Natives on Their Home Turf.

Working closely with higher education institutions, Verizon is developing solutions that help schools seamlessly integrate wireless technology into educational experiences, as well as provide superior onand off-campus student services.

By leveraging the smartphones and tablets that are ubiquitous to students' lifestyle, institutions can engage digital natives on their own terms—offering them an easy way to connect with course materials, classes and peers. "Digital backpacks," for example, act as an all-in-one resource, storing homework, notes and textbooks, so students don't have to carry them around. With just a swipe, they can access relevant content whether en route to class or on break at work.

And with Collaborative and Virtual Learning solutions from Verizon, students and instructors can securely connect, share content and collaborate in real time, as well as access online classes and interactive presentations.

Connecting Students to Campus Life.

Verizon is also teaming up with industry leaders like Dub Labs to deliver mobile technology that provides students with the persistent and flexible connectivity they need to get the most out of college life.

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Building Tomorrow's Digital Campus.

High costs and crowded campuses are increasingly driving students to online or distance learning offerings. While these programs may cut costs for students and colleges alike, they can also dilute the on-campus experience, leading to decreased engagement and lower completion rates.

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with prospects, because colleges often don't know who they are or what programs they might be most interested in.

And that's where a mobile app can help, as a means of pushing campus information out to prospects in a highly targeted—yet more anonymous—way.

"We wanted to make sure [prospective] students had something they could opt into," Lenore-Jenkins said—and an outreach mechanism they were more likely to sign up for.

The app includes an admissions module, with links to Maryville's application and requirements; a video module that is integrated with the university's YouTube channel, featuring short video clips that tell the institution's story; a social media module that pulls together all of Maryville's social media channels in one place; and an athletics module that features scores, statistics, and other information to help users follow Maryville's sports teams.

Those who download the app can configure it so they receive only the information they want, allowing them to engage with the university in a much more personalized way, Lenore-Jenkins said.

"This is the Amazon generation; students want [information that is] customized to them," she explained.

The university's goal is to release new features for the app on a monthly basis, trying out these innovations to see how well they are received.

"Our best focus group is right on campus," she added: "our students."

Laundry availability? There's an app for that

Like Maryville's new app, SIU's Mobile Dawg initiative is intended to attract more students, and in the program's first year, the results seem promising so far: Enrollment is up 13 percent this fall.

But enrollment is just one indicator of the program's success, Crain said. Officials also hope to boost student retention and improve learning outcomes.

"We've found that many students go the whole semester without buying textbooks," Crain said. Offering digital versions that students can read on their tablets anytime, anywhere, not only appeals more to this generation of learners, he said; it's also saving freshmen an average of \$270 in textbook costs.

Originally, SIU officials thought they would give iPads to incoming students. But they quickly realized that students would want to be able to multitask, run Flash-based video and graphics, and operate familiar Office programs on their devices.

"We noticed ... that we'd get more for a lower cost from the Windows 8 platform," Crain said.

So, the university invested in 2,700 Dell Windows 8 tablets for students and another 600 for faculty and staff. SIU also equipped its computer labs with docking stations for the tablets and is selling docks, bundles, and accessories in its campus store.

Were SIU officials concerned about the number of apps that would be available for the Windows 8 platform, compared with the number available for iOS or Android? Yes, Crain said, but when they looked into the apps that students would be using the most—Facebook, Twitter, Instagram, and so on—they found there were Windows 8 versions of these.

The fact that SIU offers its own suite Mobile Campus, page 23



Today's students want information that is customized to their individual needs.



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of campus apps helps as well.

Besides the usual campus information, which can be "pushed out" to students as needed, the Mobile Dawg app interfaces with Desire2Learn, SIU's learning management system, so students can view their grades and assignments on their mobile devices. There are apps for responding to in-class quizzes or polls, and for taking notes in electronic versions of textbooks.

Students can see the real-time location of campus buses on an interactive map, so they can wait inside and not worry about missing their bus, Crain said. A "What's in Front of Me" app labels the buildings and businesses on campus when students hold their smart phone or tablet in front of them with the camera activated. And with a "311" app, students can report a broken water fountain or other campus problem by submitting a photo of it.

One of the most popular apps in the Mobile Dawg suite is the one that tells users which washing machines are available—and even alerts them when their laundry is done. (Each machine has its own IP address, Crain explained, and information about its availability is pulled from the residence hall server.)

Jordan, the SIU freshman, believes most students his age are used to having instant access to information from wherever they are. "I think it's only natural that students would expect the same from their classes," he said.

In a response that bodes well for his chances of success, he says SIU's Mobile Dawg initiative helps him feel more connected to the university and its community.

"It's helped me get used to college," he said. "It's allowed me to get the information I need more easily—and it makes everything seem closer."

Dennis Pierce is the Editor in Chief of eCampus News. Follow Dennis on Twitter at @eSN_Dennis.



For mobile initiatives to succeed, IT infrastructure is critical

Giving students access to content in the palm of their hand requires a significant investment in IT infrastructure, whether students take advantage of this access from a school-issued mobile device or their own personal smart phone or tablet.

Southern Illinois University has a 2.5 gigabit-per-second connection to the internet from its main campus network but is in the process of upgrading to a 10 Gbps connection to accommodate students' needs, said David Crain, assistant provost and chief information officer.

SIU also has re-engineered its network to speed up login times. The university uses a network access control (NAC) solution from Cisco Systems, but checking students' devices to make sure their apps were up to date and they didn't contain any malware whenever students tried logging onto the network was causing long delays.

"We realized it wasn't acceptable for students to wait up to 10 minutes every time they wanted to log on," Crain said.

So, IT staff at SIU redesigned the university's network by walling off the residential network behind a separate firewall. "By segmenting this off, we were able to lower the security restrictions" and reduce the number of items the NAC was looking for when students tried logging on, Crain said—which has "sped up access times" tremendously.

SIU also is in the process of bringing Wi-Fi into all of its buildings and outdoor areas on campus, as well as making its servers more redundant, so they are "as resilient as possible," Crain said.

Campus officials have seen a higher demand than they originally anticipated and have had to make adjustments on the fly, adding more wireless access points in high-traffic areas. "It's definitely a learning process," Crain said. -D.P.

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