

Spotlight on Mobile Computing Series

Evaluating a Campus-Wide Mobile Learning Initiative

This brief summarizes the EDUCAUSE webinar “Evaluating a Campus-Wide Mobile Learning Initiative: Lessons Learned from ACU’s First Three Years” (part of the Spotlight on Mobile Computing series), held February 17, 2011. The speakers were Scott Perkins, Director of Research at Abilene Christian University, and George Saltsman, Executive Director of ACU’s Adams Center for Teaching and Learning and author of An Administrator’s Guide to Online Education.

For a decade before ACU became the nation’s first university to deploy mobile devices to the entire student body, ACU researchers had been examining students’ changing habits. Among them: students take notes less, use libraries less, and take advantage of professors’ office hours less. Students value the facts they get from these traditional sources of education much less in a world where there is Google. The challenge for higher education in the digital age is not to impart information but to teach how to assess it. This mandate requires real-time classroom connectivity.

From the start, ACU’s mobility initiative has focused on student learning. Since the deployment of mobile devices, the campus has become a petri dish for research into the impacts of mobile learning on the educational experience and faculty and student behavior. The data confirm that mobile technology in the classroom improves student engagement, sparks faculty innovation, and enriches the learning experience.

Key Takeaways

ACU was the first university to deploy mobile devices across the student body.

ACU’s decision to deploy mobile devices campus-wide was hardly a sudden one. For a decade, George Saltsman had been watching

the trend of ubiquitous laptop deployment at other colleges and universities. He was intrigued by the path that technologies take from emerging, to expected, to obsolete. At what point does a university expect all students to have their own laptops? At what point will laptops become obsolete?

ACU examined how viable it would be to provide laptops to all students but found the infrastructure barriers (such as limited Wi-Fi capacity) to be too great. When mobile devices became increasingly sophisticated, ACU recognized the potential they could hold for classroom learning. Upon launch of the iPhone, the university saw its opportunity. The fall 2008 deployment of iPhones and iPod touches began ACU’s process of understanding the benefits of mobile devices in education. The campus has become a “200-acre petri dish” for studying the intersection of higher education and mobile technology.

The university has taken a leadership role in mobile learning research. ACU shares the findings from its mobility program freely through reports, videos, podcasts, and conferences (see <http://www.acu.edu/technology/mobilelearning>).

From the start, ACU’s mobility program has been learning-focused.

ACU’s mobile device deployment had multiple objectives, but learning was paramount:

- *Focus on student learning.* This was an education-led initiative, driven in part by professors enthusiastic about experimenting with mobile devices in the classroom.
- *Increase student engagement.* If ACU could engage students in using these devices, it followed that their learning would improve.
- *Promote university awareness.* University professors and administrators could draw national attention to ACU by discussing the initiative in the media.
- *Advance undergraduate enrollment.* Being small and private, ACU is always interested in enrollment (full-time enrollees have been steady at about 5,000 in recent years). This was not the reason for the mobility initiative, but as long as such an initiative existed, letting the world know about it was important. ACU also saw the potential to attract the type of student who wants a dynamic learning environment, which could raise average SAT/ACT scores of the student body.
- *Foster a culture of innovation on campus.* The university encourages the faculty to explore new modes of working and learning, in and out of the classroom.

ACU has been on a journey to understand the intersection of IT and higher ed.

For 10 years preceding the decision to deploy mobile devices, ACU studied data to ascertain how the digital world was changing the educational world and would continue to shape it. For example, ACU uses the *Horizon Report* to understand emergent technologies and benchmark where the university stands technologically. ACU researchers study how students use technology. Some of the learnings that emerged:

- *Information has less value in the digital age.* In the print age, information was valuable because it took time to get. Going to a library, using the card catalog, and hunting down information in the stacks took more time than using professors' office hours and asking a question. But both take much longer than Googling. Students are using libraries and

professors' office hours much less than in the print age. They are also taking many fewer notes in class.

- *The educational challenge of the digital age is teaching how to assess information.* The mandate of the educator in the digital age has changed. The teacher's role is not to deliver knowledge but to teach students how to assess it. Students need to learn what to make of the information onslaught and how to distinguish biased from legitimate sources, determine what is credible, synthesize information from many sources, and extrapolate truths. Mobile devices in the classroom allow teachers and students to examine the same information and together figure out what to make of it.

This research was widely shared, public comment was welcomed, and every major stakeholder group on campus had a say in the decision to embrace mobile devices. These realizations about the future of technology in education convinced the campus community of the need for mobile-device deployment. It was truly a community decision.

“We figured that the best way we could get a feel for what the future of learning was going to look like was to give everybody one of these devices.”

— George Saltsman

The deployment led to app development, tools, and more educational insights.

To help the community get the most out of the devices, the university created a web-based, platform-agnostic set of tools and mobile apps. Some of the apps's purposes:

- To interface with and navigate the campus (map apps).
- To help faculty become more efficient.
- To sync class and student calendars.
- To help faculty learn students' names and faces.

An interesting insight emerged from this process: While older generations initially

viewed the devices as content distribution tools—tools for accessing content that resided in web-based repositories—the students immediately saw them as real-time participation and collaboration tools.

The smallness of the devices didn't stop students from using them for various media-sharing purposes: uploading text to blogs or videos to YouTube. Faculty thought the devices were too small and clumsy for word processing. But students compared them to prior generations of phones, finding writing with keyboards vastly easier than T9 texting.

Scott Perkins observed another generational disconnect. While the older folks spearheading the mobility program had felt they were on the cutting edge of integrating mobile technology into higher educational processes, the students had been wondering what took so long, puzzled over the differences between the ways they connect with friends and classroom communication models.

Research bears out the benefits of mobile learning.

ACU's mobility program is firmly committed to evaluation—empirically evaluating all aspects of the program—and to involving faculty in research and development. Perkins and team have conducted exhaustive studies assessing the impact of the mobility program on student and faculty behavior, attitudes, and educational experiences.

- *Students are consistently positive about mobile learning.* The class of 2012's approval rate has stayed steady at 90%, while the class of 2013's has consistently hovered just under 100%.
- *Faculty consistently rate the program a success.* For the first three years of the mobility initiative, more than 80% of the faculty have rated it a success.
- *Students are more engaged.* The biggest changes were increased out-of-class contact, participation in class, and involvement in the class.

“It's hard to get 80% of faculty to agree on anything. They consistently rate the program a success.”

— Scott Perkins

- *Attitude, impact, and usage vary by device among students and faculty.* In both groups, the iPhone is favored over the iPod touch.
- *Faculty are engaging and experimenting with mobile learning.* In the fall of 2008, when the mobility program began, 50% of faculty had mobile devices; two years later, more than 95% did. Many are experimenting and innovating with these devices. There were more than 30 formal mobile learning research projects in 2010–11, up from seven two years ago.
- *Faculty report significant class-related use of mobile devices.* Of instructors surveyed, 90% are comfortable requiring students' class usage, 84% regularly use a device for in-class activities, and 82% have students conduct in-class Internet searches.
- *Students perceive positive academic impact.* Of students surveyed, 96% carry their devices to classes daily, 90% say the devices help them accomplish things more quickly, and 87% say their mobile devices have improved communication with teachers. Similar percentages say they have improved collaboration in the classroom and increased their control of the learning environment.
- *Mobility allows faculty to transform educational practices.* The ways that class time has been transformed include app use, live Internet searching, and collaborative and interactive learning activities, as well as student-directed and just-in-time strategies. Ways that learning has been extended outside the classroom include expanded class time via course blogs and podcasts, increased faculty-student communication, and collaborative projects.

Access this and other briefs in the Spotlight on Mobile Computing Series, as well as recordings, transcripts, and slides from the webinars, at <http://www.educause.edu/Resources/Browse/SpotlightonComputing/40259>.

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