Mobile Learning for Business Schools

What is it?

Check the backpack of any higher education student and you're likely to find a smartphone. The handy handheld tool has long been a favorite of on-the-go college kids to remain on task through the use of calendaring; up-to-date with e-mail and Internet access; and 'in the know' by way of social media, IM and text messaging. Mobile computing is mainstream.

But despite its ubiquity in the personal lives of students — and the efficiencies it brings — mobile computing has not been utilized by the higher education community to enhance student learning and deliver content and resources with greater efficiency. Until now.

Identified as the No. 1 technology to watch for out of more than 110 technologies considered, the Horizon Report predicts that mobile computing will enter mainstream use for teaching and learning within the next 12 months.[1]

The set of teaching and learning activities that are well-suited to mobile devices continues to evolve rapidly as mobile devices and networks improve, educators and instructional designers develop innovative uses for those devices and networks as applied to education, and courses and curriculum are redesigned to take advantage of mobile computing as a delivery medium for blended and online programs.

Business programs in particular are poised to take advantage of the benefits mobile computing has to offer, with the following uses becoming commonplace in undergraduate business concentrations and MBA programs:

- **Course registration and scheduling**
  Students can register for courses via mobile devices and view class schedules and calendars once enrolled. In addition, mobile devices provide the perfect platform for communicating last-minute changes to meeting times or places, as well as accessing other timely alerts.
- **Access to assignments and course materials**
  Students can access course content via learning management systems, cloud computing solutions and shared portals. Information and data can be uploaded, downloaded and revised.
- **Collaboration on group projects**
  Group work is a substantial and critical component of business school curriculum, and mobile computing enables teams of students to communicate and collaborate on projects across space and time.
- **In-class polling**
  Some mobile device platforms are capable of running applications to support in-class polling, effectively eliminating the need for standalone clicker systems in lecture halls.

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- **Surveys and evaluations beyond the classroom**
  The ability for faculty members, teaching assistants and students to generate informal surveys that rapidly capture the point-in-time feedback or attitude of an entire course population or that of smaller groups is an important use that leverages the mobile device. Faculty members can gauge student comprehension and attitudes and adjust their instruction appropriately.
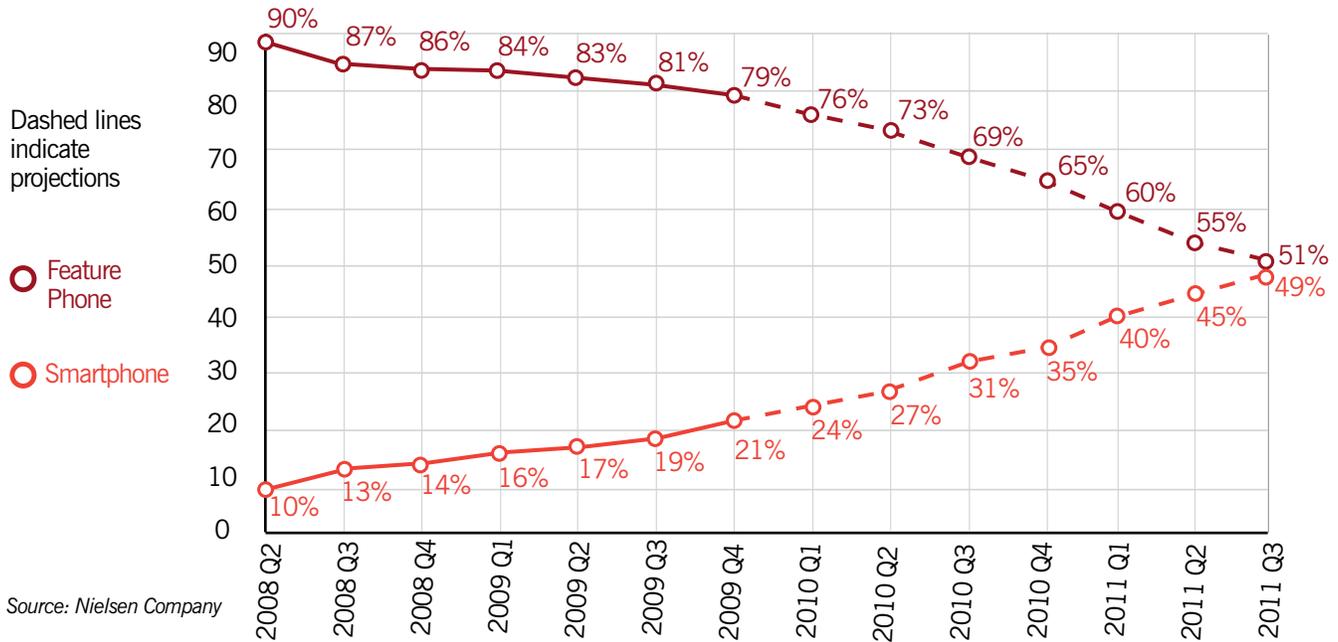
Why is it important?

- **Smartphone ownership is skyrocketing**
  The rapid ascendance of mobile technology has created an environment where people expect anywhere, anytime access to everything from friends' status updates and photos, to movie showtimes, to turn-by-turn directions, to — yes, you guessed it — their educational assets.

  So ravenous is our appetite for mobile content and experiences that the Nielsen Company predicts that by the end of 2011, there will be more smartphones in the U.S. than feature phones.

U.S. Smartphone Penetration & Projections

Dashed lines indicate projections

○ Feature Phone

○ Smartphone

Feature Phone: 90% 87% 86% 84% 83% 81% 79% 76% 73% 69% 65% 60% 55% 51%

Smartphone: 10% 13% 14% 16% 17% 19% 21% 24% 27% 31% 35% 40% 45% 49%

Quarters: 2008 Q2, 2008 Q3, 2008 Q4, 2009 Q1, 2009 Q2, 2009 Q3, 2009 Q4, 2010 Q1, 2010 Q2, 2010 Q3, 2010 Q4, 2011 Q1, 2011 Q2, 2011 Q3

Source: Nielsen Company

- **MBA students lead busy, multi-faceted lives**

   Offering mobile learning applications as part of the business school experience meets students' current expectations and lifestyle. MBA students lead busy, multi-faceted lives. While some students who enroll in graduate business programs have the luxury of focusing full time on their schoolwork without family or work obligations, many students have to juggle many priorities at once.

- **Preparing students for the workforce**

   Offering mobile applications to business students also prepares them for a workplace heavily reliant on mobile technology. Business school leaders have always viewed preparing students for the workplace as an integral part of their educational mission. Increasingly, that outlook includes preparing students to be immediately productive with the mobile tools that dominate the enterprise.

In 2009, Wilfrid Laurier University in Ontario, Canada, initiated a mobile learning pilot in which full-time MBA students and faculty were given a mobile device with the goal of better integrating faculty, students and content. In their survey of students who participated in the program, one student offered the following observation:

"When I went to my first MBA co-op term [Winter 2010], I was given a company smartphone. Because I was using the smartphone already for school, the transition was fast and easy."[2]

Business schools are seeing the benefit of implementing the same types of technology environments within their programs that the corporations that employ their graduates use as well.

Why now?

Mobile learning is an especially timely topic for business schools right now due to the convergence of four trends:

- **Re-architecting business degree programs**

   The emergence of mobile learning is occurring at a time when many colleges and universities are re-architecting their business degree programs to accommodate blended and online delivery. Many institutions with longstanding, traditional MBA programs are considering adding blended and online programs to their offerings for several reasons:
  - Increased student demand for blended and online learning
  - Increased competition for prospective MBA students
  - Budget cuts and strain on facilities

- **Extending the life of aging technology infrastructure**

   On many campuses, especially those facing the most severe budget crises, upgrades to core administrative and academic systems have been delayed or put on hold. Put simply, many campuses are making due with what they have already.

> ## "If you can secure the right participants in your project, faculty members can quickly become the biggest champions."
> — Dr. Scott Koerwer, President, Newberry College

Fresh mobile interfaces can breathe new life into old systems. As consumers become accustomed to performing everyday tasks on their mobile devices, their expectations frequently revolve more around access than they do around depth of functionality. Mobile interfaces can improve access to critical campus systems for students, faculty and staff.

The smaller screen of mobile devices is not always a disadvantage, either. At a March 2010 mobile learning focus group conducted by EDUCAUSE ELI, one presenter related a story of how redesigning an existing course registration application for mobile use forced a rethinking of the essential elements of the system. "The result was a simpler, easier to use interface via the mobile device."[3]

- **Integrating classroom learning with experiential learning**

Graduate business school programs have a long tradition of augmenting traditional classroom learning with group work, fieldwork, internships, and other forms of experiential learning activities. These interactive and hands-on learning experiences develop a student's ability to communicate, lead, work in teams, and make effective situational decisions. One of the longstanding challenges in business education has been integrating classroom learning with experiential learning.

Mobile devices provide an ideal platform for students to document and share with classmates and faculty members their learning experiences in off-campus project or internship settings. For faculty members within graduate business programs that incorporate a mobile learning environment, the opportunities to leverage mobile learning to better integrate class work and fieldwork are limited only by their creativity.

In the mid-2000s, the University of Maryland's Robert H. Smith School of Business incorporated mobile learning into its graduate business curriculum. According to Dr. Scott Koerwer, formerly associate dean of professional programs and services at the University of Maryland and now president of Newberry College (SC), mobile devices provided to full-time MBA students and incorporated into field projects helped improve the quality of interactions among students and faculty. "The goal was to have students use the technology to be more effective, and not just to communicate faster."

How can it help?

Along with new opportunities and great promise, new technologies that are transformative in nature present challenges to adoption. In original research conducted by the Center for Digital Education, representatives of 30 graduate programs at a range of public and private colleges and universities offered up the challenges they see to the adoption of mobile learning in their programs. The following are the top three challenges cited, along with solutions from institutions that are blazing the trail.

- **Culture and faculty adoption**

Administrators in support of rolling out mobile learning initiatives must recognize that with regard to using technology in their instruction, there is always a bell curve of faculty members (just as there is of consumers) that includes early adopters, mainstream users, and late adopters.

Ample support and encouragement, when accompanied by an approach that allows for faculty freedom and experimentation in the use of mobile learning technology, allows early adopters to set positive examples for their peers to follow.

Dr. Hugh Munro, director of the MBA program at WLU, observed that roughly half of his core curriculum faculty eagerly embraced the mobile learning pilot, conceiving ways to incorporate the mobile learning environment into coursework, while the other half took a more guarded approach. Not forcing the faculty members to change their behavior, but rather being supportive and letting the innovators innovate, was the right choice, he says. "We saw [faculty members] who had a hard time trying to use course management systems who were still willing to try this out."

Dr. Koerwer of Newberry College agrees that faculty participation is key. "If you can secure the right participants in your project, faculty members can quickly become the biggest champions."

- **Compatibility**

Some graduate business programs, including those at American University, Emory University and the University of Maryland, have provided a standard mobile device to all students and faculty. This is clearly the simplest way to overcome compatibility problems. Other institutions such as North Carolina State University recommend that students use a particular brand of mobile device, but neither mandate nor provide them.

The majority of institutions, however, choose not to employ a standard. While the 2009 ECAR Study of Undergraduate Students and Information Technology found that 51 percent of respondents owned an Internet-capable handheld device, the device landscape often represents a mixture of mobile operating systems and device capabilities. We can assume the same is true of graduate business student populations. In these circumstances,

faculty members often struggle with how to effectively incorporate mobile learning activities into the curriculum when no common technological ground can be assured.

The EDUCAUSE Mobile Learning focus group surfaced the idea of complementary student teams. In this approach, device ownership is taken into consideration when students are assigned to teams, making sure that each student project team contains at least one person with a highly capable mobile device.[4] In any group project, there are a variety of tasks and functions that need to be performed, not all of which require the robust multimedia and sharing capabilities of today's smartphones. Complementary student teams provide one example of mobile learning best practices in instances where faculty and students operate with diverse mobile devices and capabilities.[5]

- **Available resources and technical support**

Figuring out how to deploy and support mobile learning initiatives is another challenge facing business school leaders who are otherwise ready to embrace the benefits of mobile learning. There are many questions to be answered, such as:

- Who will provide the support for mobile devices on our campus?
- What about support for mobile applications?
- How can we ensure strong cellular connectivity on campus? What about off campus?

These are important questions, but fortunately they are not without precedent. A wide range of support models exist, and oftentimes mobile technology providers — including both device manufacturers and wireless carriers — will be willing to put in place defined service level agreements and support escalation points. In addition, many institutions have improved the quality of cellular service on campus by working directly with carriers to install additional cells on campus, or by working with vendors of Distributed Antennae Systems (DAS) that provide coverage across carriers.

Arguably the most important thing is not the support solution an institution chooses, but that it sets and maintains clear roles, responsibilities, and expectations for service and support throughout the community of students, faculty, staff and vendors.

Who is doing it?

An institution with a successful on-ground MBA program, Wilfrid Laurier University (WLU), is a prime example of the mobile learning trend. According to Dr. Munro, the business school's leadership team was in the midst of designing the university's first-ever hybrid (on-ground/online) MBA program when they chose to pilot a mobile learning environment. "We wanted to develop an MBA program targeted at the current learner who is well-versed in technology, the multi-tasker who wants to learn in a new way," says Munro.

The WLU team was still working through curriculum design for the new program when they decided to launch the pilot to see what mobile learning applications faculty and students would use. The team launched the mobile learning pilot with just enough time for faculty to experiment with mobile in their classes, but without providing much in the way of formal guidelines or expectations.

According to Munro, their casual approach to the pilot worked well and the future of the program, which WLU plans to continue, lies in the hands of students and faculty. "Technology shouldn't drive the curriculum, but rather be an enabler. We wanted to make it easy for students to connect things they learn outside the classroom back into the group. Ultimately it's the students who will pick it up and take it where they want to take it."

Dr. Koerwer, president of Newberry College (SC), has seen the positive impact that mobile devices and mobile learning applications can have on education. "Education needs to be fun, relevant to your future state of citizenship, and it needs to be timely." Incorporating mobile devices and applications into the curriculum, he says, can help educators accomplish these goals.

Endnotes

1. The Horizon Report is an annual study by the New Media Consortium (NMC) and EDUCAUSE ELI that evaluates the impact of emerging technology on teaching and learning.
2. Original research, Wilfrid Laurier University, provided to Center for Digital Education.
3. EDUCAUSE ELI, Mobile Learning: Context and Prospects, A Report on the ELI Focus Session, May 2010, http://net.educause.edu/ir/library/pdf/ELI3022.pdf
4. EDUCAUSE Center for Applied Research, The ECAR Study of Undergraduate Students and Information Technology, 2009, http://net.educause.edu/ir/library/pdf/ers0906/rs/ERS0906w.pdf
5. EDUCAUSE ELI, Mobile Learning: Context and Prospects, A Report on the ELI Focus Session, May 2010, http://net.educause.edu/ir/library/pdf/ELI3022.pdf