Why Mobile Is a Must

We need a new educational model that makes learning personal and motivating, and helps secure our students’ future in the knowledge economy. Mobile technology opens the door to it. By Mary McCaffrey

Imagine a group of kids working together on a retrospective of the Civil War. One student is at the public library, going through microfilm of newspaper articles from 1861 to 1865. She finds a reference to the political ramifications of a certain battle—notably, a picture of an influential officer. The student then uses her smartphone to snap a picture of the microfilm screen and sends the picture and caption to her group for additional research.

Meanwhile, a second member of the group is reviewing gravesites and comes across some ambiguous headstones. He takes out his tablet computer and, after a quick bit of online research, locates the appropriate person. While all of this is happening, yet another student is conducting a face-to-face interview with a relative of a Civil War veteran. Rather than hastily throwing together handwritten notes, this student is using his MP3 player to record the conversation. Later, he'll upload it to the group’s web-based project space for the other team members to hear.

What makes these authentic, intimate learning opportunities possible? Mobile technologies. Mobile devices provide the platform and, as importantly, the incentive for students to take personal ownership of the learning experience. The lessons absorbed form deep connections for students and add to their cognitive framework in ways that no lecture ever could.

A Desktop in Your Pocket

Today's mobile technologies bear little resemblance, functionally or physically, to first-generation cell phones. They include a broad array of devices such as music and video players, cell phones, smartphones, tablets, and netbooks, all with access to cellular carrier networks, WiFi, or both. And while features and performance continue to climb, prices regularly drop, making mobile devices virtually ubiquitous.

The potential enormity of this user base has attracted software developers large and small. Nearly every available mobile device supports third-party application development, providing a rich selection of productivity, entertainment, and education applications, along with core functionality such as instant messaging, e-mail, calendar, and web browsing. And advances in processor performance, storage, cameras, and sound have all contributed to providing users the same rich media experience they've come to expect from desktop systems. The integration of QWERTY keyboards is making obsolete the days of pecking out text messages using a numeric keypad. Also common are large, high-resolution displays that offer on-screen keyboards, multitouch gestures, and the ability to clearly view the screen both indoors and out. All of this combines to create the equivalent of a pocket desktop, in a portable, always-connected form factor.
So what is all of this doing for K-12 education? Nothing short of disrupting and transforming the established teaching and learning paradigm. To start, mobile technology is helping to solve the two challenges facing education today: students’ desire to learn differently, and students’ need to learn differently.

Kids today are captivated by the personalization and socialization of online tools—the ability to build large networks of friends; share their thoughts, feelings, and goals; and communicate as they wish.

**Can you imagine telling a kid to stop spending so much time on algebra? That could become the new reality if we discard an outdated teaching methodology that doesn’t reach today’s students.**

Students have become so invested in mobile devices that our society has coined a new term for them—digital natives—to represent their having only known a world where all of this is possible. And not only is it possible, it’s possible anytime and anywhere, via a plethora of devices and widely available cellular and WiFi networks.

The upshot is, these digital natives now have in their hands the tools to shape their own education in once unimaginable ways. They have the ability to interact with other learners at their convenience, with differences in time and place presenting no hurdle. They can research, on the spot, any topic of interest. And they can capture the moment, whether it’s in a picture, a video, or a blog entry.

Blessed with all of these capabilities, students have what they need to function in a knowledge economy. It’s the obligation of 21st century educators to prepare students for this new economy, which means providing them with the skills to locate the most up-to-the-minute facts, and then turn those freshly acquired facts into solutions appropriate for the task at hand. So students must become effective researchers, which in turn requires them to develop an understanding of how to identify quality sources of information. Developing these new information retrieval skills requires us to encourage students to push beyond old boundaries of space (classrooms), content (textbooks), and authority (teachers).

Mobile devices fulfill all of these demands. They give students a tool that allows them to express themselves in any format they wish, build networks of sources, and perform on-the-spot research to produce and act on the most current facts. Moreover, it puts in their hands a technology that engages and relates to them and sparks their curiosity.

**Tools of Engagement**

Mobile devices are not the first technology to promise great improvements in education. Similar claims were made about e-books, distance learning, electronic whiteboards, and many more. But there are several differences between those earlier tools and the opportunity presented by the use of digital applications, resources, content, and the internet in tandem with mobile devices.

To begin with, mobile technology and internet access are already ubiquitous, requiring little or no capital investment by schools. Students—or really their parents—are the ones making that investment. Earlier educational technologies required schools to deploy the technology, incorporate it into the curriculum, and train the users. Once schools made it past the deployment and infrastructure issues, they often ran right into training as the next stumbling block.

This time around, students, generally already expert users, need little or no support, and faculty and staff quickly become acclimated. In any case, as opposed to requiring specialized support from a handful of experts, newcomers have an enormous user base to tap for assistance.

Plus, previous generations’ tech innovations mostly perpetuated the traditional classroom structure, and in doing so missed out on perhaps the single most potent enabler of academic success—student engagement. Mobile technologies have no such failing. Students need no extra encouragement to use them. They already spend virtually every available moment on them, texting, instant messaging, posting personal status updates, and the like. All of that energy can also now be brought to their schoolwork.

**Can you imagine telling a kid to stop spending so much time on algebra? Or not to go overboard on researching historical sources? Sounds like pure fantasy, but that could become the new reality if we have the courage to discard an outdated teaching methodology that doesn’t reach today’s students, and instead embrace their bustling, burgeoning digital world. Mobile devices applied in the context of education will engage students, foster deep and meaningful learning, and result in today’s kids reaching frontiers that generations before them could never hope to glimpse.**

**Mary McCaffrey** has more than 25 years of experience in technology and education. Currently, as CEO of TH!NKed (thinked.com), a provider of strategic online solutions to the K-12 market, McCaffrey works with school districts on finding ways to bring mobile learning into the classroom.