Chapter 7
Making a Difference with Mobile Learning in the Classroom

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ABSTRACT
As technology continues to advance and computers become smaller, faster, and more powerful educational institutions are being confronted with multiple, external factors that are driving them towards change (e.g., rapid developments in information and communication technology that are part of everyday life, and changing characteristics of learners). We have come a long way from the earlier versions of the desktop computer to mini mobile computing devices of PDAs, iPods and stylish smart phones of today. In this chapter, the authors will examine how past generations of learning theories and practices have shaped the genealogy of mobile learning. Next, they focus on the implications, potentials, current practices, and challenges of mobile learning, with the intent to answer the question of how mobile learning can make a difference in the K-16 classroom.

INTRODUCTION
Although classrooms have traditionally been the epicenters of knowledge acquisition, the age of technology has paved the way for a more dynamic system of learning. For most of us, the walls of our classrooms and the number of books in our campus libraries are no longer physical barriers. Instead we are limited by bandwidths, processor speed, the dearth of innovative ideas, and the size of our imagination. It is time for us to rethink what learning is for the individual, community, and organization (Wenger, 1998). In his book “Community of Practice – Learning, Meaning, and Identity,” Wenger observed that our institutions have largely “operated on the assumption that learning is an individual process, that it has a beginning and an end, and that it is best separated from the rest our activities.” As a result of de-contextualized learning, it is not surprising that our students perceived education as unchallenging or irrelevant.
Most of us tend to conjure up “images of classrooms, training sessions, teachers, textbooks, homework, and exercises” when we think of learning (Wenger, 1998). We often forget that it is an activity that happens anywhere, anyplace. Wenger believes that we should view learning as social phenomenon instead of relegating it to the realm of “academic enterprise.” We learn as much from our informal learning as we do from our formal learning. We need to make education relevant and challenging again. The lack of synergy among those who are in charge of facilitating knowledge construction and those who are acquiring new knowledge have lead to a dire need for a more responsive, less isolated system of learning.

In the last few years, we have heard educators call for change in the way we educate our students. In this country alone, it is estimated that we have over 80 million Millennials who were born between 1978 and 1995. Their enrollment rates in colleges have surpassed previous generations. In addition to being one of the most diverse groups of Americans, Millennials also hold the distinction as the most technologically savvy-users (Howe & Strauss, 2000; Prensky, 2001). As technology continues to push the boundary of learning, mobile computing has emerged as a viable agent of change. It has created many new possibilities that have not existed before.

The traditional model of teaching has served us well in the last 30 years or so but as technology becomes more and more transparent in our daily lives, we need a new paradigm to meet the needs of our current generation of learners. Why is change critical? Jones-Kavalier and Flannigan (2006) paint a stark picture of what is happening in our classrooms today. We have “digitally literate students being led by linear-thinking, technologically stymied instructors.” Nowhere is the gulf between instructors and teens more evident than the ownership of mobile communication. According to Harris Interactive (2008), four out of five teenagers in the United States are owners of wireless devices. Many of these users consider mobile phones a social necessity.

Mobile devices have changed the way we view discourse and knowledge in society (Traxler, 2007). Conventional teaching models tell us that teaching happens in the classroom. Mobile learning, on the other hand, takes the learning process from the inside of the classroom to the outside and vice-versa seamlessly. In this chapter, we will examine how past generations of learning theories and practices have shaped the genealogy of mobile learning. Next, we focus on the implications, potentials, current practices, and challenges of mobile learning, with the intent to answer the question of how mobile learning can make a difference in the K-16 classroom.

THE EVOLUTION OF MOBILE LEARNING

It is essential for us to look into the past in order to understand the rise and decline of technologies that were supposed to revolutionize learning in education. From the early use of instructional television in classrooms (Hagerstown, MD and Samoan Islands, 1950), to the use of motion film for classroom instruction (Rochester, N.Y, 1910), to the radio broadcasts of the Little Red Schoolhouse (Chicago, 1920), all have proved that technology alone cannot solve our learning problems (Cuban, 1986). Some forms of technology have met with greater success in learning than others.

At the heart of technological breakthroughs that have seen the miniaturization of computers (from those that took up a whole room to the ones that fit into a pocket) is, the challenge to make teaching and learning relevant and engaging again. With each generation, we have witnessed the push for making learning more accessible and affordable. We have seen the natural transition from traditional face-to-face learning modes to distance learning, and distance learning to mobile learning. For the