Preface

Technology is of specific importance because it is transforming the very landscape of teaching and learning (Black, 2010, p. 94).

Educational technology tools play a pivotal role in education reform with many educational institutions having “implemented ubiquitous or required laptop, notebook, or tablet personal computing programs for their students” (Moran, Hawkes, & Gayer, 2010, p. 79). Additionally, with the availability of wireless Internet access and the convenience that mobile devices such as laptop computers offer (Kay & Lauricella, 2011), a large number of especially higher education institutions of learning are now using mobile devices in their classroom to enhance teaching and learning. Due to the characteristics and varied learning styles of the twenty-first century learners, more instructors are also striving to integrate instructional technologies into their courses to make learning more interesting, engaging, and effective.

Emerging Web 2.0 Software applications and other instructional technologies such as blogs, wikis, and network software are being integrated into the teaching of various subjects (Huang & Nakazawa, 2010) to maximize student learning while instructors and students continue to find effective ways to benefit from the integration of these tools and applications into the curriculum. Additionally, the critical need to teach with technology has changed how technology tools are being used to facilitate learning and instruction (Blue & Tirotta, 2011) as well as facilitated the consideration of various pedagogical approaches to enhance meaningful learning in modern technology-rich classrooms.

Mobile computing or Mobile learning (also called m-learning, m-teaching, or mobagogy) is a comparatively new terminology (Kearney, Schuck, Burden, & Aubusson, 2012) and relates to both “mobility of the technology” and “increased learner mobility” (El-Hussein & Cronje, 2010, p. 12) in the application of the technology. Mobile technologies such as smartphones and notebooks have multiple and powerful capabilities, and almost every student in higher education possesses some kind of mobile device and cellular network (Johnson, Levine, Smith, & Haywood, 2010), which presents many opportunities as well as challenges in education (Kearney, Schuck, Burden, & Aubusson, 2012).

Social software applications and mobile instructional technology tools continue to revolutionize the teaching and learning process, as they offer varied approaches to the teaching and learning process where learners can freely engage in activities in a contextual setting that stimulates both interest and an appetite for learning (Koszalka & Ntloedibe-Kuswani, 2010). Ebner, Lienhardt, Rohs, and Meyer (2010), for instance, consider microblogging as having a huge potential to support learning beyond the physical classrooms. Clearly, social software applications promote open education and social presence in the learning environment and these technologies support students’ learning (Bajt, 2011).
The majority of college students belong to the net generation—their interests and learning preferences are completely different from that of the college faculty and other personnel, who mostly belong to previous generations (Worley, 2011). As Black (2010) noted:

*Educators are becoming more aware that Gen Y has considerably different experiences and expectations and that it even thinks and processes information differently than students of the past. As digital natives, students of Gen Y have been surrounded by computer technology since birth; they know it well, they use it constantly, and they expect it in the classroom (p. 100).*

While mobile technology has great potential to challenge traditional pedagogy (Lowenthal, 2010), there is also evidence to suggest that mobile technology has not been fully utilized in educational settings (Kukulska-Hulme, 2010). Therefore, *Pedagogical Applications and Social Effects of Mobile Technology Integration* offers the forum for dialogue on sound pedagogical applications and appropriate mobile technology integration practices that support effective teaching and learning. This text has a great collection of peer-reviewed essays and research reports contributed by teachers, faculty, and other educational practitioners in the field of educational technology. The text is organized around two primary themes: *Pedagogical Applications for Best Practices in Mobile Technology Integration* and *Social Applications and Tools for Effective Mobile Technology Integration*.

A total of fourteen chapters focus on the first theme. The first chapter provides a pedagogical framework for teaching using E-readers “to create a learning environment that prepares students to live in a world where technology is ever-changing and learning is constantly evolving” while the second chapter “describes three iPad implementation projects involving multimedia database and digital storytelling creation that underscore the successes and challenges of these devices and the new classroom activities they make available to educators.” Chapter three contributors “present specific elementary-level subject learning lesson ideas for iPads, identifying the advantages and challenges of such integration” and also “provide practical tips for integration in elementary classrooms.”

Chapter four explores “a theoretical framework and several methods that can be used to support the use of iPads to assist students with disabilities” and also “the potential uses of iPads and their corresponding applications for students in special education.” The fifth chapter examines Geocaching, as “a significant example of a mobile technology-based activity that can be incorporated into educational practice,” while chapter six describes the Math Snacks Summer Camp Model and the Math Snacks 3-Day Gradual Release Model as offering “experiences where teachers and students work together to learn challenging mathematics concepts using mobile devices, laptop computers, and hands-on activities” including its benefits and limitations.

Chapter seven provides “findings related to the use of the Mobile Studio concept in STEM classes including how the use of an innovative technology that replaced traditional equipment in STEM classes was able to increase student learning” while chapter eight focuses on “the increasing use of mobile technology within teacher education programs and the need to use multiple devices in ways that impact the teaching and learning processes in teacher preparation programs.” Chapter nine documents the “findings from a QUAL + QUAN concurrent mixed method study that examined the first-year implementation of a one-to-one (1:1) laptop initiative in a suburban, independent, co-educational middle and high school in the United States,” while chapter ten provides a case study of professional development using new technologies for Asian languages teachers in Australia.
Chapter eleven provides a systematic review of mobile learning in health professions education in order to “assist educators in using mobile learning” in their teaching practices. Chapter twelve contributors “developed and tested a successful Studio-Based Learning (SBL) model”—mLearning Design Studio (mLDS) model—that they propose will “improve students’ SBL experience, augment their analytical skills, attract more underrepresented students into computer science, raise all students’ skills needed to enter and compete in today’s global workforce.” Chapter thirteen examines “ways in which mobile-supported learning can contribute to the global commitment to provide quality education for children, youth, and adults,” while chapter fourteen explores “the implementation of HTC tablet devices and the changing roles of the faculty instructor and learners when using this device in an undergraduate business management course in a business college and a graduate course in early childhood in a college of education in a large Midwestern university.”

The last three chapters focus on the second theme of Social Applications and Tools for Effective Mobile Technology Integration. Chapter 15 reviews the iMentor Model that has emerged through the development of social media and discusses “how the use of iMentors brings teacher preparation into the 21st century” while chapter sixteen “explores changing definitions of literacy that build on the key concepts of New Literacies and existing Web 2.0 practices, such as blogging, social networking, and other shared and collaborative media spaces.” Finally, chapter seventeen “critiques six example case studies of global mobile learning projects using social networking tools to discuss the social implications of mobile learning in global learning environments.” The chapter contributor makes a compelling argument that “supporting global mobile learning projects via the establishment of the projects as collaborative communities of practice of lecturers and students provides a rich environment for fostering pedagogical transformation from a focus upon teacher-directed content to student-generated content and student-generated learning contexts.”

In summary, rapid technology developments, increased investments in emerging technology tools, and the digital nature of learning environments have changed not only the face of education but also necessitates a change in how technology tools are used in education to enhance student learning. Many of the students in our classrooms are different from the ones our educational system was designed to teach. To respond to the need to provide for digital natives and to tap the strengths offered by mobile learning platforms—portability, context sensitivity, connectivity, and ubiquity—more teachers are striving to incorporate mobile learning devices into their instruction.

The proliferation of mobile technologies in education and the critical role of technologies in schools and the modern workplace reiterate the need for educators to integrate these invaluable tools into teaching and learning. Therefore, the hope is that each of the scholarly works presented under the two themes generated will help forward the agenda and discussion on the significance of mobile technologies in education as well as the need to identify appropriate mobile technology integration practices, and sound pedagogical applications to enhance effective teaching and learning. Overall, this scholarly book provides very useful information for school administrators, faculty, teachers, technology staff, directors of Teaching and Learning centers, and other educational stakeholders using or interested in using mobile technologies.

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REFERENCES


