Chapter 5.15
Use of Mobile Technology at Montclair State University

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ABSTRACT

Educators strive to develop innovative teaching strategies to meet the expectations of digital natives that are accustomed to social networking environments. The Campus Connect project at Montclair State University, which began in the fall 2005 semester, provided an innovative mobile technology service, in order to meet these expectations. The program, which included a custom designed, high speed, rich media and GPS (location based services) capable cellular network as well as a rich array of cell phone based applications enabled students to customize their mobile phone for 24/7 access to the University's teaching and learning, information, and administrative resources. This chapter will describe the growth and evolution of the Campus Connect program and the applications that were frequented by the student population on mobile technology through this innovative program. In addition, a description of how these applications enhanced the learning environment will be provided as well as the changes the program underwent in order to best suit the demands of the changing population of students. Quantitative and qualitative survey results are offered to describe the student's reaction to using mobile technology in a learning environment as well as identify those applications that students utilized most often. Based on these results, recommendations for future iterations of the Campus Connect program will be provided, which can be used as a guide for administrators who may be contemplating comparable mobile technology programs at their institutions.

INTRODUCTION

When reflecting upon creative uses of technology for the University campus an inspiring story told by Renee Dubos in his classic work, A God Within (Dubos, 1972), which explores humanity's stewardship of the planet comes to mind. He tells of the Inuit people of the far North who are known for carving very intricate and beautiful figurines from the ivory extracted from whales. When Dubos inquired of these artists how they decide what to carve from the pieces of ivory they worked with, he was surprised to learn that they do not make a decision about what to carve at all. Rather, they see the figurine that will result from their carvings as latent in the raw media and their artistry is to remove the excess to release the "god within." These artists have a unique insight about their media. In some way they comprehend all the facets and nuances of the undifferentiated material in hand and with precision and care they are able to fully realize it's potential. What a fitting metaphor for our efforts to introduce new technologies into the fabric of the living and learning environment that is a University campus. We would do well to remember that the campus is a delicate ecosystem. We should take care to consider the multitude of subtle forces that define a campus community and treat technology as the carving knife, so to speak, that refines the campus environment in a way that all members of the community are able to fully realize their potential.

It is this campus community that has subtly changed over the years, which reaps the benefits of new technologies or the integration of existing technologies into the learning environment in new ways. In today's higher education environment, campuses face multiple challenges and opportunities—from keeping students safe, to building stronger campus communities, and to designing technology enriched courses that improve learning. Universities therefore need to remain sensitive to the various ways in which people can learn.

The benefits of these new technologies have also accelerated the pace of change at colleges and Universities throughout the nation, specifically in the area of online education. The percentage of distance learners as a proportion of all those pursuing higher education has increased significantly over the past decade and a half according to the United States Department of Education (2003). This rise has encouraged educators to rethink many facets of their teaching strategies. Distance-based delivery systems significantly alter the dynamic relationship among the instructor, student and content; these alterations must be anticipated in the design of instruction. Foremost among the factors that must be considered is the need to accommodate the various learning styles that are characteristic of the 21st century learner. Today's students who are broadening their knowledge are coming from diverse backgrounds demanding curriculum changes in higher education. Demographic changes such as differences in family status and age of population are requiring educators to "adjust their curriculums to match the diversity of their students" (Tunstall, 1995, p. 2) and establish learning environments that foster individualization and accommodate diversity.

In response to this diverse student culture, postsecondary educators respond to these varied backgrounds by supporting individual strengths and weaknesses. Dunn and Griggs (2000) describe how instructors "need to become aware of the variety of ways in which individual learners process new and difficult information" (p. 134). The research performed by Dunn and Griggs indicates how there exists significant differences in learning style preferences among a variety of cultural groups such as Native Americans, Hispanic Americans, African Americans, Asian Americans, and European Americans. Therefore, instructors are discovering that a single instructional method is not effective when educating the 21st Century learner whose differences in age, culture, experience, and language skills have become so apparent in the classroom.

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