

ADDRESSING THE PEDAGOGICAL CHALLENGES OF MOBILE APPLICATIONS TO SUPPORT UBIQUITOUS LEARNING

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PAPER ABSTRACT

The utilization of mobile technology has redesigned the way today's courses can be delivered to students with the result that time and space no longer constrain instructors and students. Today's learning environments have the technological means to be open to the world and support interaction styles that are fundamentally different from those encountered in the instructor-centered paradigm. For example, mobile technology provides students flexibility with respect to how, when and where learning can occur. This ubiquitous learning (u-learning) environment combines the advantages of an adaptive learning environment with the benefits of ubiquitous computing and the flexibility of mobile devices. In most ubiquitous learning approaches the physical environment is directly related to learning objectives and activities. Mobile technologies are accessible to learners experiencing time, place or situational barriers, thereby offering adaptability to their individual needs and learning styles, as well as the flexibility of pervasive mobile applications (mobile apps). However, the use of mobile applications in a learning environment does not change the essential aspects of how students learn - prior research shows that there is greater learning when students have the capability to physically move their own learning environment with them and seamlessly and flexibly obtain information about the context of their learning. Despite the ubiquity and flexibility of using mobile applications, one key challenge is that technological, instructional, and pedagogical developments have not been integrated so as to transform learning environments that are productive and user-centred. Based on prior work, this paper addresses the pedagogical challenges of mobile applications including the integration of instructional content and interactivity of learning process to support ubiquitous learning.