A Theoretical Framework for Design Theories in Mobile Learning: A Higher Education Perspective

Authors : Paduri Veerabhadram, Antoinette Lombard

Abstract : In this paper a framework for hypothesizing about mobile learning to complement theories of formal and informal learning is presented. As such, activity theory will form the main theoretical lens through which the elements involved in formal and informal learning for mobile learning will be explored, specifically related to context-aware mobile learning application. The author believes that the complexity of the relationships involved can best be analysed using activity theory. Activity theory, as a social, cultural and activity theory can be used as a mobile learning framework in an academic environment, but to develop an optimal artifact, through investigation of inherent system's contradictions. As such, it serves as a powerful modelling tool to explore and understand the design of a mobile learning environment in the study's environment. The Academic Tool Kit Framework (ATKF) as also employed for designing of a constructivism learning environment, effective in assisting universities to facilitate lecturers to effectively implement learning through utilizing mobile devices. Results indicate a positive perspective of students in the use of mobile devices for formal and informal learning, based on the context-aware learning environment developed through the use of activity theory and ATKF.

Keywords : collaborative learning, cooperative learning, context-aware learning environment, mobile learning, pedagogy

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