A Student Centric Approach for Mobile Learning Video Content Development and Instruction Design

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Abstract— **With the recent advancement in mobile computing technologies, there has been a paradigm shift from electronic learning(e-learning) to distance learning(d-learning) to mobile learning(m-learning). M-learning not only provides educational oppurtunities through handheld devices, but also facilitates just in time information required at the right time and right place. Though m-learning provides mobility and instant access to education, there are some implementation challenges and issues like limited processing capability and small screen display that needs researchers attention. Keeping in view the latest trends in Information, Electronics and Communication Technologies(IECT) and the increased usage of mobile phones in India, this paper discusses mobile learning technologies, opportunities and challenges for successful implementation of m-learning. It is observed that most of the students in India use low cost mobile phones that too with different hardware capabilities and features. Researchers and developers in education domain should consider these mobile capabilities and challenges before developing m-learning video content. Pilot experiment was conducted to study different mobile video presentation styles, file formats and their playback capabilities using students mobile phones. Students from various finishing schools were involved in carrying out this experiment. Based on pilot results, instructional design strategy and mobile video content development guidelines were formulated catering to the requirements of student community in India.**

Keywords—**Instruction Design, Mobile Learning, Mobile Video, Ubiquitous Learning, Video Content**

Kumar Mandula became member of IEEE in 2012. He was born in Hyderabad in the year 1980. He received his Master of Engineering and Bachelor of Engineering degrees in Electronics and Communication Engineering with Systems and Signal Processing Specialization from University College of Engineering (Autonomous), Osmania University, Andhra Pradesh, India in 2005 and 2002 respectively. Also, he is pursuing his Phd in the area of "Ubiquitous Computing for Education" from Faculty of Electronics and Communication Engineering, Jawaharlal Nehru Technological University Hyderabad (JNTUH), Hyderabad, India.

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