Application of Mobile Computing In Tertiary Institutions: Case Study of Midlands State University

Paul Mupfiga, Margaret Chirimumimba
Midlands State University

ABSTRACT

Mobile devices are already being used by educational institutions in many countries. Technology has an impact on students and teachers and the learning process. Regardless of many brilliant anecdotes about using mobile devices in education, mobile devices after all are ICT devices that contain fragile electronic components, need power to operate and connectivity for access. This paper provides an overview of how mobile computing is being applied in the education sector in Zimbabwe tertiary institutions. I will focus my research on Midlands State University. This paper will also explore the opportunities and issues in regards to using mobile devices in education.

Keywords: eLearning, m-Learning, m-Education, mobile devices in education

Date of Submission: 01 June 2015
Date of Accepted: 15 December 2015

I. INTRODUCTION

Information Communication Technology (ICT) is increasingly becoming more widespread throughout University education worldwide. This is in line with UNESCO’s policy paper for Change and Development in Higher Education which urges Higher Education institutions to make greater use of the advantages offered by the advancement of communication technology to improve the provision and quality of their education. Many universities around the world are turning to the use of ICT, now generally referred to as e-learning, as a complement to teacher led tuition on campus (Hazemi and Hailies, 2002).

What is mobile computing?

Mobile computing is a generic term used to refer to a variety of devices that allow people to access data and information from where ever they are. James bucki (2011). Mobile computing, is the use of portable computing devices (such as laptop and handheld computers) in conjunction with mobile communications technologies to enable users to access the Internet and data on their home or work computers from anywhere in the world (Margaret Rouse 2007).

From the definitions above mobile computing enables access to digital content without restriction on time or place. Mobile devices include laptops, netbooks, tablet computers, smartphones, media players and mobile games consoles. The main advantage of mobile computing is portability. There is no restriction on one location in order for you to access anything for example one can access email on the go or students can access their results or materials at any location not just the campus only. mobile computing enables one to save documents on an online server and this service is known as cloud computing. The documents can be accessed anytime and anywhere when you have a connection to the internet.

In the past years computers have begun to migrate from the corporate world to the classroom. Technological changes and mobile computing are resulting in increasing transformations of the educational world. Advancement in computer and technology has made the education system more organized and systemic than before. Mobile phones have gone past being mere phones to email platforms, tools for text messaging, music and video players, entertainment for example gaming, digital cameras and so much more. Ownership of mobile devices is on the increasing. People now own smart phones, notebooks, tablets being on the rise. Mobile computing is becoming part of everyday life as reflected by the ownership rates of mobile devices and the rate at which they are being used on campuses. Mobile computing is being adopted in education mainly for teaching and learning and also administration and research.

E-learning

E-learning in its broadest sense can be defined as instruction delivered via an electronic media including the Internet, Intranets, extranets, satellite broadcast, audio/video tapes, interactive TV and CD-ROM (Rosenberg, 2001, Garrison & Anderson 2000, Carry & Willis, 2001, Hall and Snider, 2000). Electronic learning in