Integrating Multimedia in ODL materials and Enhanced Access through Mobile Phones

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ABSTRACT

The aim of integrating multimedia in ODL materials and enhance access through mobile phones at the Open University of Tanzania (OUT), is to enable students who are scattered throughout Tanzania and outside the country overcome the challenges of accessing course materials. Currently OUT has a Learning Management System customized from MOODLE, known as Open University of Tanzania Learning Management System (OUTLeMS) which can be accessed through http://elms.out.ac.tz.

Implementation of the project to deal with this challenge involved customization of mTouch U software now called Open University of Tanzania mobile Learning (OUTmLearning - mlearning.out.ac.tz) that enabled activities of all 150 ODL courses including forum, assignment, glossary, resource details and charts available in OUTLeMS be accessed through mobile phones. In one complete ODL course (Multimedia Technology and Applications - OIT 208) in addition a video of a sign language interpreter has been added in one module within the course.

In situations with problems of internet and electricity power supply, these developments enable students in both urban and rural areas especially in remote parts including those with visual, hearing and physical impairment use mobile phones to access course materials while pursuing their studies. Females students faced with social constraints like taking care of the family are empowered to deal with difficulties of studying by being able to view study materials anywhere and anytime on their mobile phones.

Keywords; Multimedia, Open Distance Learning, Access, M-learning

INTRODUCTION

The Open University of Tanzania (OUT) is the largest Higher Learning Institution in the country and only university in East Africa which is offering Open and Distance Learning (ODL). The university operates through 29 regional centers which are envisioned to be regional community colleges by 2015.There are 69 study centers throughout the United Republic of Tanzania. It has expanded its services to neighboring countries including: Kenya, Uganda and Rwanda.

Students from both urban and remote rural areas including visually, hearing and physically impaired learners pursue various courses at OUT. It is a challenge to facilitate the learning process for all these groups of students due to the fact

that accessing the course materials in the OUTLeMS is difficult due to power cuts, unreliable or lack of internet connectivity and poverty. In addition most of the course materials in the Learning Management System are in plain text format that cannot be accessed by students with disabilities. Also students in the remote areas with lack or unreliable power and internet connectivity face a problem of accessing course materials in the OUTLeMS. Having the course materials integrated with multimedia and accessed through mobile phones can alleviate problems that hinder students' access to ODL materials.

TARGET GROUPS

ODL stakeholders scattered nationally and internationally including staff and students as well as technologists that have special needs and disabilities, females who are marginalized and learners from remote areas that lack access to internet connectivity and power and finally Open University of Tanzania (OUT) students in general.

MOTIVATION FOR THE PROJECT

The lack of integrated multimedia in ODL materials, inaccessibility due to power cuts and low internet connectivity together with the challenges of special needs students, provided sufficient motivation to find a means of improving the process of learning and teaching at the Open University of Tanzania. Additionally, though multimedia and mobile phones technology has been used in education to enhance teaching and learning in the developed countries for many years, far less has been done in Tanzania, because of many challenges associated with their implementation.

M-learning technology provides a suitable way for learning because it is estimated that Africa has 500 million phone subscribers (Rao, 2011). Mobile phone technology is more adaptable within the society compared to other learning technologies because it is already commonly used by students, cost effective, and can be utilized regardless of time or location Motlik (2008). In another study conducted by Shuler (2009) the following advantages for mobile phones as a learning technology were highlighted: Encourage "anywhere, anytime" learning, reach underserved children, improve 21st-century, social interactions, fit with learning environments and enable a personalized learning experience.

M-learning has more advantages compared to other educational methods as it empowers and engages the learner (Traxler).

Most of the learners in developing countries especially in East Africa possess mobile phones Mbwete (2011). Feasibility study on mobile usage conducted at The Open University of Tanzania revealed that most of the students situated in remote areas possess mobile phones which show that the use of mobile phone technology can be embedded in the educational process Mbwette et.al (2011). In light of the Multimedia and Mobile phone technology advantages highlighted in the discussion above, Open University of Tanzania recognized the need to implement this technology so as to assist students.

KEY ACTIVITIES

Integration of Multimedia in ODL materials

Instructor's voice was recorded through laptop while the video record of sign language interpreter was taken via Sony digital camera. The recordings were integrated into ODL materials through the use of Adobe Master Collection CS3.

Search/Installation and Customization of Mobile Software Application

Through web search it was discovered that mTouch-U software applications that enable users to access Moodle from all modern mobile devices was available. The software was approved by the management to be used by students. The

software was then tested by interviewing students on viewing module notes, downloading file and responding to discussion forum on their mobile phones (Nokia, Samsung, LGE400, Tecno N3, Lenovo and HTC).

The agreement from the software designer was approved by the university legal advisor. OUT management provide financial support and hence m Touch U software was then installed and customized to OUT server.

Main Barriers in the Implementation Process

The main challenges during the implementation were due to the following;
Time constraints for the academic staff

Academic staff involved in the implementation, have their daily work schedules; therefore it becomes difficult to concentrate on the other activities and hence the project plans revolve around their work and availability.
Lack of skilled sign language interpreter

Sign language experts in ICT subjects are few, making them very expensive to hire.

CONCLUSION

Having the Open and Distance Learning (ODL) materials in an institution is one thing and having the ODL materials being accessed is another thing. No one can deny the fact that mobile phones encourages anytime, anywhere learning. For a country like Tanzania where internet connection is still a problem together with unreliably power in the rural and urban areas, the presence of mobile technology in teaching and learning process will to a high degree overcome the problem of learning. OUTmLearning application enables students to access their ODL material and most of the activities that can be found in the university Learning Management System. This mobile application will help to increase the number of students from remote areas participating in distance education through m-Learning technology, increase number of students from outside Tanzania due to the accessibility of the ODL materials integrated with multimedia and enhanced teaching and learning anywhere and anytime. It will recommend the integration of mobile technology into national curriculum.

ACKNOWLEDGMENTS

REFERENCES

Rao, M. (2011). *Mobile Africa report 2011: Regional hubs of excellence and innovation.* MobileMonday.

Motlik, S. (2008). Mobile learning in developing nations. *The International Review of Research in Open and Distance Learning*, *9*(2).

Traxler, J. Mobile learning devices can bridge DE challenges in developing countries.

Shuler, C. (2009). Pockets of potential: Using mobile technologies to promote children's learning.

Mnyanyi, C. B. F.,; Mbwette, T.S.A & Bakari, J (2011). Prospects and Challenges of m-Learning in Open and Distance Learning in Developing Countries. In Mohamed Youssef & Syed Aziz Anwar (Eds.) 4th Conference on e-Learning Excellence in the middle east: In Search of New Paradigms for Re-Engineering Education Dubai 31st – 3rd February ISBN 978-9948-15-947-6 page 170 – 178

Mbwete.T.S (2011) E – Learning and Mobile Learning: Some Highlights on Innovative Delivery Methods in Continuing Education. Conference on Strengthening Universities, Enhancing Capacities – Higher Education Management for Development, Born, Germany November, 2011.