

## **Editorial: eLearning and ICT in secondary and tertiary education**

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Welcome to Volume 14 Issue 1 of the *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*. This issue brings articles from or about Australia, Botswana, Canada, India, Japan, Kenya, Liberia, Malaysia, Sweden, Tanzania, and USA.

The use of social media has the potential to assist research training and encourage active learning, social inclusion and student engagement. The article “Lessons learned from introducing social media use in undergraduate economics research” by O'Brien and Freund documents the lessons learned from developing a blended learning model incorporating social media blogging at a regional university in Australia. The process of applying these findings to the design of a new subject are documented, highlighting a number of unanticipated institutional obstacles.

In their article “Toward an online Master of Public Health degree in Kenya: Moi University's path”, Koskei, Ruto-Korir, Carrier and Sales detail the School of Public Health's path to offer online courses. It discusses the rationale for this decision, examines the state of ICT in Africa in general and Kenya more specifically, the activities undertaken by SPH, resources that have been devoted to the effort, progress made, challenges faced, and the status of the work to date.

Logistic regression is a popular tool used to build and evaluate binary choice models. Trehan and Joshi use it in their article “Building and evaluating logistic regression models for explaining the choice to adopt MOOCs in India” to explain and predict the individual choice of adopting online learning through a Massive Online Open Course (MOOC). Their proposed model suggested that a respondent's online communicative efficacy was the strongest predictor of MOOC usage and similarly their preference for self-directed learning.

Although University of Botswana implemented national ICT policies and trained the lecturers to use educational technology, there was low-level use of eLearning in teaching and learning. In the article “Educational technology adopters: A case study in University of Botswana”, Dintoe uses a qualitative case study approach to explore and specifically focus on one aspect of the phenomenon - the lecturers as a unit of analysis.

In their article “Feasibility of cloud computing implementation for eLearning in secondary schools in Tanzania”, Mwakisole, Kissaka, and Mtebe describe the results of their study of 820 students. The study found that 11% of government secondary schools had computer labs with 20.1% of them connected to the Internet. Moreover, more than half of surveyed students (56.6%) had access to mobile phones at home with 53.5% using the phones to access the Internet. This study shows that eLearning implementation in the cloud for secondary schools in Tanzania is feasible.

The article “Understanding factors affecting primary school teachers' use of ICT for student-centered education in Mongolia”, by Li, Yamaguchi and Takada aims to understand the factors affecting teachers' perceptions on use of ICT for student-centered education. Based on Fullan's educational change theory, the analysis through multiple linear regression found that teacher's professional competency and perceived benefits on use of ICT are significant factors affecting teachers' perceptions on use of ICT tool for student-centered education.

The article “Implementing small scale ICT projects in developing countries – how challenging is it?” by Karunaratne, Peiris and Hansson summarizes experiences of efforts made by twenty individuals when implementing small-scale ICT development projects in their organizations located in seven developing countries. Based on the outcome of this study, professional development of the change agents is a key factor for the success of projects.

Several studies have shown that apart from the mechanics of specific technologies involved in such educational solutions, successful implementation of e-learning is also based on behavioral and social factors. The study reported in “Determinants of students’ e-learning acceptance in developing countries: An approach based on Structural Equation Modeling (SEM)” by Vululleh validates the extended technology acceptance model by incorporating two intrinsic motivation attributes, namely, quality of life and social influence in developing countries such as Liberia.

After a thorough review of existing literature on developing countries and a qualitative pre-study conducted at JKUAT University, the study “Factors affecting asynchronous e-learning quality in developing countries. A qualitative pre-study of JKUAT University” by Hadullo, Oboko and Omwenga, identified the factors that influence quality of e-learning systems as: Course Design, Content support, social support, and Student Characteristics, Instructor Characteristics, Technician Characteristics, Course Assessment and Institutional factors.

The study “The development of an innovative resonance experiment using smartphones with free mobile software applications for tertiary education” by Abidin and Tho was based on the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) instructional model. It incorporates a free mobile software application (mobile app) that can be easily downloaded from the Google Play Store to perform an innovative resonance experiment. This package can be used by lecturers and students in laboratory exercises and demonstration kits for the learning and teaching process.

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