Editorial: The role of ICT in supporting various learning environments

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Welcome to Volume 13 Issue 2 of the *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*. This issue brings articles from or about Botswana, China, Cuba, India, Kenya, Norway, South Africa, Spain, Tanzania, Turkey, and the UK.

Although e-learning initiatives bring many advantages to the education system, these rewards have not been fully realized in developing countries. Moakofhi, Leteane, Phiri, Pholele, and Sebalatlheng report on the "Challenges of introducing e-learning at Botswana University of Agriculture and Natural Resources: Lecturers' perspective". The authors discovered that four major challenges should be addressed before an e-learning initiative can be introduced successfully: poor infrastructure, inadequate IT support, lack of e-learning policy, and lack of university management support.

In their article "Personal Learning Environments: A study among Higher Education students' designs" Bartolomé and Cebrian-de-la-Serna, report on a study of 18 students of Social Education at the University of Barcelona who were invited to prepare and use their own Personal Learning Environments (PLEs) using two platforms: Symbaloo and Protopage. An analysis of both platforms, demonstrates their preferences in software, functionality, web tools, individual application and those aspects of the software that they choose to include in their spaces.

Köroğlu and Çakır investigated the "Implementation of flipped instruction in language classrooms: An alternative way to develop speaking skills of pre-service English language teachers". The results show that the experimental group of students studying the Flipped instruction based syllabus developed significantly in terms of fluency, coherence, lexical resource, grammar, pronunciation and accuracy skills.

In their article, Tarimo and Kavishe report on a study of "Internet access and usage by secondary school students in Morogoro Municipality, Tanzania". The results found that of 120 students involved in the study, 48% indicated that Internet accessibility in their schools was intermediate while only 22% stated that it was high. It was also reveled that majority of students did not have enough skills for Internet browsing and Internet speed was slow.

Njoroge, Ngugi and Kinzi examined the "Influence of selected factors on the implementation of information and communication technology policy in public secondary schools in Naivasha Sub-county, Kenya". The data revealed that factors related to schools' visions on ICT policy have the highest negative impact on implementation of ICT policy compared to selected factors related to cost of ICT infrastructure and teachers skills in ICT.

In their article, Eligi and Mwantimwa assessed "ICT accessibility and usability to support learning of visually-impaired students in Tanzania". The study found that ICTs support innovative learning, encourage independent learning, and promote participatory and collaborative learning. On the other hand, the units surveyed at the UDSM faced challenges such as insufficient special ICTs to

cater for the needs of visually-impaired students, inadequate training on the use of special ICTs, and a shortage of ICT experts.

In their article "A decade of technology enhanced learning at the University of Dar es Salaam, Tanzania: Challenges, achievements, and opportunities", Mtebe and Raphael identify gaps that need to be worked upon to unleash full potentials brought by educational technologies at the university. The study recommends more support to early adopters committed to initiating blended learning programs, strengthening and expanding existing blended distance programs as well as seeding new ones and building capacity in developing and testing more reliable blended distance program innovations.

The article "Disturbances and contradictions in an online conference", by Carr and Ludvigsen, analyzes participant experiences and statements about perceived problems in two online conferences to identify tensions and disturbances relating to external factors, conference technology, online discussions and design choices. The authors consider the underlying contradictions within the conference systems which generate both positive and negative experiences of participation.

Early research has shown that MOOCs have mostly been deepening, rather than broadening, access to education. The article "Critical discussions on the Massive Open Online Course (MOOC) in India and China" by Trehan, Sanzgiri, Li, Wang, and Mohan Joshi, situates the discourse with three broad objectives of sharing MOOC development in these countries, conducting a high-level discussion of the potential value of MOOCs for their HE systems and critiquing current issues with MOOC development there.

This article "Computational algorithmization: Limitations in problem solving skills in computational sciences majors at University of Oriente", by Castillo, Berenguer, Sánchez, and Álvarez, analyzes the results of a diagnostic study carried out with second year students. The results showed verifying insufficiencies that have their base in the processes of interpretation and understanding of the problematic situations and in the insufficient design of algorithms, using pseudo-codes, before implementing the solutions in a programming language.

Despite the perceived benefits attached to e-learning, several studies concur that there are still many challenges facing e-learning. In their article "A model for evaluating e-learning systems quality in higher education in developing countries", Hadullo, Oboko, and Omwenga, present a model for evaluating LMS assisted e-learning through reviewing the existing e-learning frameworks and models for quality evaluation.

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