Editorial: Integrative Models, Interactivity and Strategic Alignment

Denise Gaspard-Richards
The University of the West Indies, Open Campus, Trinidad and Tobago

Welcome to Volume 15, Issue 1 of the *International Journal of Education and Development using Information and Communication Technology (IJEDICT).* In this, our first issue for 2019, we present articles from or about Australia, Botswana, Canada, Norway, South Africa, Tanzania, Trinidad and Tobago, and Uganda.

In the "changing face of higher education through digital technologies" Bob Fox utilizes a case study of an Australian university to highlight a role for digital technology solutions in the thrust to sustainable improvements in the HEIs teaching and learning strategies; efforts to achieve an aligned curriculum and building capacity among staff and students, in the context of strategic change and adaptation to meet teaching and learning needs.

Kishabale Bashir examines "e-learning interactivity, learner satisfaction and continuance learning intention in Ugandan higher learning institutions." The study findings indicate a relationship between high levels of interactivity in the eLearning environment and learner satisfaction. In turn, learner satisfaction had a positive influence on their continuing active engagement and learning in an interactive setting. This study holds important lessons for instructional designers, instructors and SMEs during the design, implementation and evaluation of the curriculum in eLearning environments.

From interactive design and learner satisfaction, we move to agility in the ID process. Budoya, Kissake and Mtebe, present an integrated model (ADDIE-FDDP Model) that facilitated learning needs at the design stage of an interactive multimedia course in life skills education. Software developers and teachers assed the integrated model and agreed on its effectiveness in guiding the design process to support teaching and learning in the course.

Continuing on the theme of integration, Byungura Jean Claude, Henrik Hansson and Ruhinda Ben evaluated an integrated educational management information system (UR-IEMIS) at the University of Rwanda and examined the degree of its diffusion and its ability to improve services across departments of the institution. The authors share concerns related to the current unsatisfactory state of UR-IEMIS integration and offer proposals for improvement in use of the tool.

Turning to IT–institutional alignment Jean Claude, Hansson, Olsson and Masengesho explore institutional alignment and the impact on ICT integration in university services. The authors note that the misalignment between information technology (IT) use and the services provided by higher education institutions in particular, leads to a lack of technology value added and poor institutional performance at the level of service delivery and support.

Saadet Korucu-Kis and Kemal Sinan Ozmen in "S-TECHNO: An instructional design model for redesigning instructional technology courses" describe the development and implementation of an instructional design (ID) model to increase the efficiency of instructional technology (IT) courses. The authors adopt a constructivist approach to design and treats with barriers such as technological beliefs, knowledge and skills, to engage student teachers. The findings indicate a role for the S-TECHNO model in improving student teachers' beliefs in regard to implementation of improvements in the teaching and use of instructional technology.

In the article "Harnessing the power of a mobile phone in the promotion of teacher ethics in Tanzania" Mfaume, Mgaya and Bilinga examined teachers' perspectives on use of a mobile phone to share information and communicate on issues of ethical conduct in Tanzania. The findings

indicate that a handful of respondents perceived a mobile phone as a viable tool because of its ease of ownership, accessibility, and the Internet connectivity features. However, the authors noted some key issues that prevented wider acceptance, such as attitudes, beliefs and limited network connection in some areas. The authors recommend adoption and use of the device by Teachers' Service Commission staff to facilitate wider coverage of information as a tool to combat unethical conduct amongst teachers.

Continuing on the theme of teacher development, Tusiime, Johannesen, Ozme and Gudmundsdottir undertook an analysis of how art and design teacher educators (TEs) develop digital competences in teacher training institutions in Uganda. The findings indicate that art and design TEs develop digital competence through formal approaches, such as continuous professional development and pre-service training, and informal approaches, such as collaboration, self-teaching and repetition. The empirical findings contribute to the existing body of knowledge and provide an understanding of the development of teachers' digital competence in Uganda.

Nunda and Elia in a study that highlighted the work of academic librarians note that visibility and information sharing are influencing factors the decision of students to use institutional repositories. Findings showed that library staff and lecturers are sources of awareness and the pulling factors in adoption and use of institutional repositories. The study concludes that information literacy (IL) training is crucial in promoting adoption and usage of institutional repositories.

 Aliyu, Arasanmi and Ekundayo pose the question: "Do demographic characteristics moderate the acceptance and use of Moodle learning system among business students?" The authors present a case for continuous development of educational digital learning environments such as the Moodle LMS, but note the evidence of mixed feelings among students on acceptance of technology The findings indicate that social influence has a significant impact on behavioural intention and behavioural intention has a significant impact on system usage. Gender, age and experience are presented as key moderators in the performance expectancy, and intention relationships that facilitate system usage among business students.

John Marco Pima in a study of "Factors that motivate teachers to use ICT in teaching: A Case of Kaliua District Secondary Schools in Tanzania" investigated the factors that motivate teachers in remote areas of Tanzania to use (ICT) in teaching. Their findings indicate four motivating factors - teacher's experience with the use of ICT; the availability of Internet services and smartphones; expected benefits of using ICTs; and finally the need to attain satisfaction in meeting their teaching objectives.

Gurer, Tekinarslan, Kocaayak and, Gonultas examined an innovative addition to the discourse on technology integration in teaching and learning with their article on the "Development and validation of an attitude assessment scale for the use of 3D printing in education". The purpose of this study was to develop and validate a scale aimed at assessing pre-service teachers' attitudes towards 3D printing in teaching and learning. The findings of this study showed that the scale was valid and reliable, and could be used by researchers interested in technology integration in teaching and learning environments.

Chen focused on anonymity as a distinct feature of online interaction in a case study of EFL student learning performance. The author explored English as a foreign language (EFL) students' perceptions and use of anonymity in online interactive learning. The findings indicate that peer to peer interaction benefitted from active engagement in learning when students used pseudonyms.

In an exploratory study: "Micro-credentials in higher education institutions: An exploratory study of its place in Tanzania." Ghasia and DeSmet present micro-credentials as an alternative approach

to cost effective career and professional development. The authors recommend the creation of a micro-credentials ecosystem, formulation of strategies and policies to achieve the goals of the system, deployment of necessary infrastructure as well as building a relevant skills base for successful implementation of micro-credentials in higher education (HE).

Hong Ngo and Ariana Eichelberger discuss "College students' attitudes toward ICT Use for English learning" They note that adoption of available ICTs may depend on students' perceptions of ICTs as affordances. This study examined the attitudes of non-English major college students on the use of selected information and communication technologies in the teaching and learning environment of EFL. Students participating in the study reported significant differences in attitudes toward the use of ICT by gender. Female students were more positive regardless of how comfortable they were in using computers and the Internet, and toward ICT use in English language learning.

In notes from the field, Dianne Thurab-Nkhosi presents an "evaluation of a blended faculty development course using the CIPP Framework" Thurab-Nkhosi evaluates the impact of a compulsory faculty development course on blended learning course implementation. Her findings indicate that blended learning implementation improved and lecturers completing the course had increased levels of confidence in the use of technology for teaching, and enhanced skills in blended course delivery. However, there she noted a need to provide continued support and more opportunities for hands-on experience.

Finally, Dintoe offers a comprehensive comparative review of the literature on "Technology innovation diffusion at the University of Botswana: A comparative literature survey" that identifies factors influencing adoption and diffusion of information and communication technology in developing countries. The review concludes that when university administrations develop policies, they cannot be implemented without a technology plan that is compatible with teaching practices they are seeking to inculcate, and there must be understanding of the context of early and late adopters in the system to drive the process, using strategies that are context based.

Last but not least, I take the opportunity to thank Professor Stewart Marshall for his tireless and sterling work in production of 14 volumes of IJEDICT. Having had the opportunity to take this seat over the past four months, I tip my hat to you Stewart. Well done! Best wishes as you pursue new projects.

Thank you authors and members of the Peer Review Panel for making the start of my journey all the more rewarding. Your continued support is appreciated!

Denise Gaspard-Richards
Chief Editor, IJEDICT

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