

## **Editorial: ICT for education and training**

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Welcome to Volume 2, Issue 4 of the *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*. This issue contains articles concerned with using information and communication technologies (ICT) in educational settings so as to empower local communities. It brings articles from and/or about Australia, Barbados, Canada, Eritrea, India, Nigeria, South Africa and the Sultanate of Oman.

A major focus of this journal is on the utilisation of responsive and localised ICT for the socio-economic empowerment of rural communities. This is also the focus Ganga Prasad GL, Amitav Nath and Rakesh Mishra in their article "Community content sharing: Towards telecentre's Lab to Land approach". They explain the methodology of "lab to land" adopted by the ICT R&T Centre in India, and that this is well accepted by the farmers and women who are using ECKO successfully. They also outline the issues of learning, challenges faced and the edge that technology has over other community based management systems.

In "Pattern of usage of various electronic media by higher education students", S. Arulchelvan and D. Viswanathan provide an analysis of the different investment-centric educational media from the perspective of the student users in urban and rural areas of Tamilnadu in India. Respondents were requested to provide information on the frequency, timing, and place of usage of radio, TV, internet, compact discs and teleconferencing and were asked to report on the usefulness of these media. The various demographic variables are associated with media usage patterns. The main findings of the analysis suggest that the Internet is comparatively more-utilized among the media.

Ken Stevens describes how small schools in rural Canadian communities have had a special role in the development of e-learning and the management of digital knowledge within customized electronic educational structures. His article, "Rural schools as regional centres of e-learning and the management of digital knowledge: The case of Newfoundland and Labrador", he describes how the school district digital intranet provides a new educational environment that complements and extends traditional schools. It also challenges the traditional educational practice of teachers and learners interacting in closed learning environments and encourages them to consider the possibilities of engaging in open classrooms that are compatible with a knowledge-based economy.

In "Applications of computer-aided assessment in the diagnosis of science learning and teaching", Muwanga-Zake reports on a qualitative evaluation using questionnaires and interviews in South African Grade 10 classes on the diagnostic value of Computer-Aided Assessment (CAA). A two-stage evaluation was necessary: the first stage involved validation of diagnostic test items; and the second stage evaluated the diagnostic value of data that CAA produces. While results confirmed earlier findings about the advantages of CAA, the diagnostic and remediation potential of CAA data depended upon teachers' capacity to set diagnostic test items particularly in a multiple-choice format, teachers' ability to interpret data produced by CAA, teachers' skills in

remedying their classroom as well as learners' problems, the quality of the test items, and the learning as well as the teaching strategies.

Ravinder Rena, in "Education and human resource development in post-independent Eritrea: An explanatory note" describes how the Government of Eritrea is offering both formal and informal training programmes at different levels in order to develop human resources in the country. The author analyses the educational and human resource development after independence, and also provides a detailed account of technical and vocation education with special reference to skill development programme.

In "Impact of WebCT on learning: An Oman experience", Syed Naqvi describes a study that investigated the impact of WebCT on students learning taking a course "Introduction to Computers in Business" offered at the College of Commerce and Economics, Sultan Qaboos University in the Sultanate of Oman. The finding showed that though the students have little exposure of WebCT at the beginning of the course but towards the end they have appreciated the importance and the use of WebCT as it is easily accessible from any Internet enabled location at any time. In addition it helps them in better understanding and learning the course material.

The article "Perceptions of information and communication technology among undergraduate management students in Barbados" by Glenda Gay, Sonia Mahon, Dwayne Devonish, Philmore Alleyne and Peter G. Alleyne describes an exploratory study that examined attitudes and usage of ICT among undergraduate management students in Barbados. The study showed that students were generally favourable towards ICT. Males were more inclined to incorporate ICT in web-based instruction compared to other teaching activities. Older students were more interested in using ICT only as a supplement to teaching activities. They suggest that university administrators need to address the gender and age differences regarding ICT usage as well as develop strategies to maintain positive student attitudes and high usage of ICT.

In "A neomillennial learning approach: Helping non-traditional learners studying at a distance", M.D. Sankey reports on Australian research investigating the perceptions of first year distance education students studying a foundation communications course using a multimodal learning environment. It demonstrates higher levels of engagement are possible when a neomillennial learning approach is adopted for designing course materials catering to a diverse student body, whilst maintaining a balanced environment for more traditional learners.

The objective of the research described by Carlos Rodríguez in the article "Educative uses of ICT, technological skills and academic performance of the Venezuelan university students (Barinenses): A causal perspective", was to analyze the relations among the educative uses of ICT, levels of skills in the technology handling (ICT Skills Index) and academic performance of the Barinenses university students, in order to propose a model of causal relations that represents suitably, the effects of the technology use with academic aims on the results in the studies.

In his article "Interactive Child Learning Aid Project (i-CLAP): Design and development of an indigenous instructional multimedia model for Nigeria", Joseph Izang Azi describes a "Research in progress" project concerned with the design and development of an indigenous Instructional Multimedia prototype for enhancing early child-education in Nigeria. It is structured based on a combination of African art, Computer Graphics and Animation, contextualized to accommodate the needs, preferences and styles of the local learner.

Kehbuma Langmia provides a literature review in the article "The role of ICT in the economic development of Africa: The case of South Africa". The author discusses and analyzes the contributions of scholars in the field of technology in bringing about change in the lives of people in Africa in general and South Africa in particular. The author contends that the reviews and

analysis of the contributions of the scholars in the field of development will be critical in judging the overall significance of the role of the Internet in promoting social change.

Murugan Krishnapillai reviews the book by Garai, Atanu and B. Shadrach (2006): *Taking ICT to every Indian village: Opportunities and challenges* published by OneWorld South Asia. This book revolves around the concept of wired or wireless infokiosks, which may be conventionally or non-conventionally powered, and seems to recommend it as a viable rural connectivity model. Building a case for infokiosks, the book reports on the various civil society and government initiatives in India over a period of three years since 2003 to extend the benefits of ICT, which have hitherto been within the urban domain, to the rural India represented by 600,000 and odd villages that house about 700 million of the more than 1 billion population.

The emphasis in IJEDICT is on providing a space for researchers, practitioners and theoreticians to jointly explore ideas using an eclectic mix of research methods and disciplines, and we welcome feedback and suggestions as to how the journal can better serve this community.

Stewart Marshall and Wal Taylor  
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