TACKLING CHALLENGES OF ICT (E-LEARNING) FOR EFFECTIVE LEARNING AND GLOBAL RELEVANCE IN NIGERIAN UNIVERSITY SYSTEM

Dr. Uzoma Aja-Okorie

Abstract

This discourse reiterated that the fundamental mission of the university is to produce high level manpower relevant to the societal needs. In light of the emerging global market economy that is ICT and E-learning inclined, there is demand on Nigerian Universities to incorporate such modern technologies in their educational system. Such investment would guarantee institutional worthiness and facilitate rapid expansion in the frontier of knowledge. This paper also discussed existing impediments against optimal use of ICT in Nigerian universities as well as recommendations to overcome these challenges.

The use of ICTs such as computers and internet connectivity has become indispensable tools in our lives, as a modern communication means of connecting to the outside world. It has become a common occurrence to find our youths swarming internet cafes day and night in most of our cities. They spend most of their time browsing through all manner of information either for leisure and/or academic purposes. ICTs facilities are also relevant to lecturers, who utilize these modern technologies. For instance, access to internet facilities and other ICT services provide instructional materials for teaching and ensure accessibility to current information on variety of discipline.

Generally, E-learning technologies serve as a form of internet network for course delivery, interact, evaluation and facilitation of learning purposes. It is an advanced method of delivering information which does not necessarily require personal or facial contact with the facilitator.

ICTs such as internet also serve as educational tools and resources, used for communication, dissemination, storage and management of information. ICT usage is maximized in higher education and corporate training programmes. It facilitates greater engagement and thus improves learning outcomes.

Thus integrating modern technologies in teaching and learning in Nigerian Universities is necessary for the advancement of educational course that is in line with global challenges. Through the use of these methods of instruction manpower development and training in our higher institutions can be enhanced.

This paper therefore highlights the role of ICTs and E-learning in promoting knowledge and skills in Nigerian Universities. It x-rays some of the challenges of ICT and E-learning technologies for effective learning and global relevance in the Nigerian University system. It proffers ways of ensuring optimal utilization of ICTs and E-learning technologies in our Universities for ensuring global collaboration and networking among students and lecturers.

The Role of ICTs and E-learning in University System

Development of universities good enough to generate globalization of university education in the new dispensation requires the use of modern technologies. This is given the fact that the man-power development and need are constantly being challenged in a developing economy like Nigeria.

Therefore the weight of ICTs as an indispensable tool for educational development cannot be over estimated. University education has the task and responsibility of developing and producing high skilled manpower that can adequately match the growing needs of our society. ICTs have revolutionized higher education in many ways, for example, improving the availability of educational resources.

There is a need for universities around the world both in developed and developing countries to embrace e-learning and other forms of ICT facilities. Katsomitros (2011) affirms that universities that will manage to successfully penetrate the global digital market over the next few years will have an advantage over those that hesitate to take that leap.

There is a presumption that university systems targeted at expanding the frontier of knowledge of the society depends on effective utilization of emerging concepts such as ICT facilities. Effective and efficient ICT usage can create an accelerated and competitive skilled man-power enough for the technologically-driven global economy. Reil (1998) and Schater (1999) emphasized the use of modern technologies as having great potentials in enhancing student's achievement and overall qualitative educational outcomes. ICTs gadgets help students to investigate more thoroughly the real world by accessing information outside the classroom. ICTs come with sophisticated packages that increase productivity, which also expose both lecturers and students to better way of solving human problems.

E-learning as a form of modern technology comprises of all forms of electronically supported learning and teaching course delivery services. Information and communication systems, e-learning inclusive, serve as specific media to implement the learning process (Tavangarian, Leypold, Nolting, and Rose, 2004). E-learning is essentially the computer and network enabled transfer of skills and knowledge. It is a form of internet network which uses information network for course delivery, interaction, evaluation and/or facilitation in learning environment. It facilitates greater engagement and thus improves learning outcomes. Babalola (2010) summarized the use of E-learning as a global computer network and web-based technology that allows data to be transferred from one computer to another.

E-learning technology encompasses abroad range of applications of technology and refers to using Information and Communications Technology to support the process of learning, to support communication in educational settings, to evaluate learning activities, to manage resources, to create educational materials (Brahm, 2009). E-learning technologies involve the use of computers, electronic office communication, electronic mails, teleconferencing, and interactive processing gadgets, radio broadcast and network system such as the Local Area Network (LAN) World Wide Web (Internet), and the Wide Area Network (WAN) (Anumun, 2008 and Okure, 2008). It involves wide range of network facilities which provides wide coverage to users simultaneously and at the learners' convenience.
E-learning as a form of ICT if properly implored in learning process can create enormity of progress by creating opportunities for expanding affordable access to education (Onwe, 2007). Varis (2004) in relation to use and progress of E-learning in the European Education System identifies that there is a need for the combination of new technologies and traditional working methods at university, despite the existence of these new technologies in our everyday lives. He argues that this has become the only method of sharing knowledge in modern society. This preposition suggests that despite the advantages of modern technologies, traditional methods of teaching should not be completely disregarded.

ICTs and E-learning in the Nigerian Universities Context

According to Babalola (2010), Nigerian Universities since 1948 have continued to prepare high level manpower for survival of the individual and the society at large. Although our higher institutions are basically dominated with traditional instructional methods, older technologies such as printed media, radio and television are common instructional tools that dominate delivery mechanism. In the last 20 years Nigerian Higher Institutions have experienced staggering increases in student population, while working with inadequate resources (Liverpool, Marut, and Ndam, 2009). Thus it is difficult to provide each student with an instructor and for such an instructor to design learning experiences that best suits every learner.

In the last three decades, the National Universities Commission (NUC) has worked to lay the foundation for E-learning through investment in ICT infrastructure, management information systems, e-mail access and library information services (Liverpool, Marut, and Ndam, 2009). Full utilization of ICT in most of universities has not yet been realized. In other words, versatile use in our higher institutions is still at its infant stage as there are various challenges that seem to be confronting utilization of ICTs and E-learning technologies in Nigerian University System.

Consequently, repositioning the Nigerian university system for effective service delivery in a rapidly growing knowledge-based economy cannot be over emphasized. Liverpool, Marut, Ndam (2009) state that Nigerian Higher Education Institutions (HEIs) must prepare scholars to contribute to the global market place of ideas. It is now imperative for Nigerian HEIs to embrace change and make the paradigm shift into 21st century education.

Therefore Nigerian University System requires developing appropriate strategies toward ICT innovation in order for Nigerian Universities to actualize their full potential. For example, E-learning services are characterized by wide-based knowledge coverage which allows learning beyond rigid classroom setting. It also encourages independent learning experience.

Challenges of ICTs in Nigerian Universities

The challenges associated with full utilization of ICTs and E-learning facilities in Nigerian Universities are generally similar to those experienced in other countries. EDUCAUSE (http://www.educause.edu) (a non-profit organization whose mission is to advance higher education by promoting the intelligent use of ICTs) has identified five challenges in teaching and learning with technology namely:

(1) Creating learning environments that promote active learning, critical thinking, collaborative learning, and knowledge creation; (2) Developing 21st century literary (information, digital, and visual) among students and faculties; (3) Reaching and engaging today's learner; (4) Encouraging faulty adoption and innovation in teaching and learning with IT; and (5) advancing innovations in teaching and learning with technology in a n era of budget cuts (http://www.educause.edu). Liverpool, Marut and Ndam, (2009) further reiterated that those afore mentioned problems are same challenges faced by Nigerian HEIs. These challenges as they apply in Nigerian Universities System are discussed below.

(1) Creating learning environments that promote active learning, critical thinking, collaborative learning, and knowledge creation:

Nigeria ranks 62 among nations in terms of institutional e-readiness which is a nation's ability to use ICT to achieve their mission (Economist Intelligence Unit, 2008). Therefore there is a lack of suitable learning environment in the Nigerian University System. This challenge should be examined in two-folds:

Infrastructural and socio-cultural deficiencies. The poor level of infrastructural development in the Nigerian economy hampers the effective utilization of ICT services. For example, telecommunication infrastructure remains one of the major issues affecting technology deployment required for growth and development in Nigeria (Awe, 2007).

The socio-cultural aspect arises in that the motivating factors must always come from a human dimension such as an enabling environment (Liverpool, Marut, Ndam, 2009). Babalola (2010) affirmed that about 56 percent of the total population of Nigeria still lives in absolute poverty. In such a situation, acquisition of modern technologies can be considered as luxury.

In order to overcome these challenges, Nigerian government must take more pro-active steps towards infrastructural development as with the introduction of Nigerian Communications Commission (NCC) and deregulation of the telecommunications sector that has in turn led to the introduction of major Global System of Mobile Communications (GSM), mobile phone providers: MTN Nigeria, V-Mobile, Globacom and M-tel. There is a direct correlation between access to telecommunications, economic wealth, and social development (Awe, 2007). Access to telecommunication is increasingly becoming key factor to enhancing education and human skills, which is required to transform developing economies (like Nigeria) into information - based (service-based) economy and in turn ensure improved economic wealth and social development.

(2) Developing 21st century literacy (information, digital, and visual) among students and faculty:

Nigeria's e-readiness poor ranking confirms the need to seek innovative solutions to improve ICT usages (Economist Intelligence Unit, 2008). Hence there is need for "effective innovations" that extends beyond technological transfer by Nigerian HEIs in introducing technologies to our educational system (Liverpool, Marut, Ndam, 2009). A classical example is incorporating existing ICTs products into teaching and learning structures for students. Even introducing technologies that provides online access to materials and information at student's convenience or a platform for communication amongst students will serve as an effective method of developing 21st century literacy in ICTs and E-learning knowledge transfer.

(3) Reaching and engaging today's learner:

Successful technological initiatives in e-learning are based largely on motivated users who use the technology in context to meet specific needs. It has been asserted that majority of the Nigerian population live in poverty consequently, most potential users such as students cannot afford to pay for commercialized internet service since most universities do not have or render free services.

Hence, creating opportunities for expanding affordable access to internet services and other ICT facilities will overcome the problem of inaccessibility. Furthermore, distance learners can readily access learning materials and other instructional materials without the risk associated with frequent travelling to their campuses. Transport costs are equally reduced as independent students are motivated to engage in self study through e-based research.

(4) Encouraging faulty adaptation and innovation in teaching and learning with ICTs:

Another serious challenge facing the use of e-learning is low readiness among teachers. Babalola (2010) stated that teachers' inability to embrace e-learning innovation arises from the fact that they were trained under the old

dispensation. Teachers often resist change and are not comfortable transferring to the new teaching technologies. Overall, universities lack the systems, equipment and teachers to train their students in ICT and e-learning.

There is need for sufficient emphasis on motivating individuals to actively use technologies (Grant and Meadows 2002). This can be achieved by training of academic staff in ICT and e-learning technologies without cost or at minimal charges. Introducing e-learning incentives for staff also serves to encourage use of e-learning initiatives, for example including e-learning courses attended as part of salary assessment of staff requirements for promotion of staff. Constant monitoring of such initiatives through professional development support is another way of advancing the course.

(5) Advancing innovation in teaching and learning with technology in an era of budgets cuts:

It is common knowledge that in the past five years there has been a global economic meltdown. It becomes more difficult for a developing country like Nigeria to spend more on technological innovations.To curb excessive expenses Nigerian Higher Education Institutions must pull resources together to maximize the outputs in quality and quantity so as to remain relevant. National Universities Commission (NUC) needs to encourage and/or incorporate the use of various forms of ICTs and e-learning technologies for teaching, research and administration in our universities. Private and public partnerships should also be encouraged to expand accessibility to e-learning through fund raising research and development in modern technologies.

Conclusion

Given the profound promises and pervasive impact of ICT on educational development, Nigerian Universities need to embed ICT into their overall learning strategies. Leveraging on ICT calls for radical transformation in the Nigerian education sector and training programmes as well as accelerated investment in human capital development. By ensuring the development of a solid ICT-driven educational system, Nigerian Universities can be positioned to compete in the global technology-driven knowledge based dispensation.

References

Anumnu, S.I. (2008).Information and communication technology for sustainable classroom management. In Babalola, J. B., Akpa, G.O., Hauwa, I. And Ayeni, A. O. (eds), M*anaging education for sustainable in developing countries* (pp.) Nigeria: Nigerian Association for Educational Administration and Planning (NAEAP) 91-95.

Awe, J. (2007). Nigeria: *Bridging the infrastructural divide*. Retrieved on 07/05/2011 from http://www.jidlaw.com/itsolutions.telecomm8/html.

Babalola, J.B. (2010). *Modeling Nigerian University System for effective learning and global relevance*: *past, present and perspective*. Ibadan: His Lineage Publishing House

Babalola, J.B. (2010). *Transition from chalkboard to digital whiteboard: keeping pace with challenges of 21st century learning technologies indeveloping economy*. Ibadan: His Lineage Publishing House.

Brahm, T. (2009). *Human Computer Interaction-Technology*. Retrieved on 07/05/2011

from http://www.elearning-reviews.org/topics/technolgy.

Economist Intelligence Unit (2008).*E-readiness rankings 2008: Maintaining momentum.* Retrieved on 07/05/2011 from http://www.eiu.com/sponsor/ibm/e-readinessrankings2008

Grant, A. Meadows J., (2002). *Communication Technology Update, 8th edition*. Boston, MA: Focal Press

Katsomitros, A. (2011). *Why global universities should adopt e-learning* retrieved on 07/05/2011 from http://www.obhe.ac.uk/newsletter/boarderlessreport_november2011/why_global_universiteis_should_adopt_elearning

Liverpool, L.S.O., Marut, M.J. & Ndam J. N. (2011). Towards a model for e-learning in Nigerian HEIs: lessons from the University of Jos ICT maths Initiative. *International Journal of Information Science and Computer Mathematics* (IJISCM) Vol.4 (36-60).

Reil, M.M. (1998). *Just-in-time learning or learning communities*. Abu Dhabi: Fourth Annual Conference of the Emirates center for Strategic Studies and Research

Schacter, J. (1999). *The impact of education technology on student achievement what the most current research has to say*. Santa Monica, CA: Milken Exchange on Education Technology

Tavangarian, D., Leypold, M., Nolting, K. & Rose M., (2004). Is e-learning the solution for individual learning? *Journal of e-learning (JEL) (2)*

Okure, S.J. (2008). Using e-learning (of ICT) Technologies: towards sustainable development in Nigeria. In Babalola, J.B., Akpa, G. O., Hauwa, I. & Ayeni, A. O. (eds) *managing education for sustainable developmentin developing countries Nigeria*: Nigeria Association for Educational Administration and Planning (NAEAP) 233-239

Onwe, S. O. (2007). Information and communication technology in education.*Ebonyi Journal of Science Education* (EJSE). 2(1)40

Varis T. (2004). Social perspective of e-learning in the national educational system. *Revistita de Universidad Y sociedaddelconocimiento* (RUSV). UOV. Vol. 1. No 1. Retrieved on 07/05/2011 from http://www.noc.edu/rusc/dt/eng/varis0704.pdf

Dr. Uzoma Aja-Okorie
Department of Educational Foundations,
Faculty of Education,
Ebonyi State University,
Abakaliki.