

Nigerian Undergraduate Students' Computer Competencies and Use of Information Technology Tools and Resources for Study Skills and Habits' Enhancement

D

Adekunle Olusola Otunla
University of Ibadan, Nigeria

Caleb Okoro Amuda
University of Ibadan, Nigeria

INTRODUCTION

Many educational institutions have adopted policies favoring the implementation of modern technology prompted by Information and Communication Technology (ICT). Modern technologies like the Internet, mobile tele-communication and World Wide Web (www) has become innovative tools that could engage students in continuous learning across homes, classes, campuses, offices, e.t.c. Thus, the role of technology using the Internet, cloud computing and networked computers in teaching and learning is turning teachers from providers of information to become facilitators of learning. As a result of technology-driven learning approaches there is a transition of teaching and learning communities from teacher-focused with traditional approaches to student-centered learning which is largely Technology-driven through the use of tools and resources that surpasses any other previous technology. Consequently, Davis (2010) affirms that technology integration within and outside the classroom is modifying the learning environment from teacher-centred to learner-centred with opportunities for personalized learning experiences. Bodys (2005) also reported that ICT tools and resources allowed students to be more individually active in the learning process and become more independent in making

decisions about how and what they need to learn using electronics learning resources.

Globally, different types of Computer-Based teaching and learning approaches have been developed to achieve the desired learning objectives and outcomes. Examples of computer technology applications, tools and resources for teaching and learning that cuts across all educational levels include; computer-assisted instruction (CAI), computer-assisted learning (CAL), e-learning, interactive video, multi-channel learning, virtual learning, virtual fieldtrips laboratories, virtual libraries, web conferencing, web chatting, digital story-telling, asynchronous online discussion (AOD) flip learning, e-mail communication and other forms of electronics and mobile learning among many other emerging learning technologies. Any of the listed technologies could be combined diversely into 'Learning Management Systems' (LMSs).

BACKGROUND

ICT integration among higher institution students particularly in Nigeria has attracted attentions through various studies. For example, Odusanya and Bamgbala (2002) reported ICT uses among final year students at the University of Lagos-

DOI: 10.4018/978-1-5225-2255-3.ch200

Nigeria; Jagboro (2003) reported on postgraduate students' use of the Internet to search for academic materials at Obafemi Awolowo University, Ile-Ife, Nigeria. Similarly, Ajuwon (2003) reported high rate of regular use of the Internet by medical and nursing students at the University College Hospital, Ibadan, Nigeria and Bello, Arogundade, Sanusi, Ezeoma, Abioye-Kuteyi and Akinsola (2004) also reported that a lower percentage of respondents demonstrated good knowledge of computers and IT at Obafemi Awolowo University Teaching Hospital, Ile-Ife, Nigeria. Ezekoka and Nwosu (2010) also reported that ICT has been found to be very useful in the teaching and learning processes among Nigerian students because of the extensive capacity to store and manipulate information as well as its unmatched ability to serve simultaneously many individual students in different locations as supplementary to classroom instruction. While writing of ICT policy framework, Adomi and Kpangban (2010) observed that the National Policy on Education (Federal Republic of Nigeria, 2004) recognizes the prominent role of ICTs in the modern world and advocated for its integration into the Nigeria educational system especially at the post primary and higher education levels.

Further, Otunla (2013) also stress that educational planners in Nigeria have seen the need for innovative instructional materials and media integration into the school system at all levels of Nigerian education. Adeoye (2013) noted higher institution students can learn through a virtual classroom environment where they can compose e-mails to conduct research via the Internet. The author further observed that the influence of technology on teaching and learning is enormous and could increase to an unimaginable and unpredictable level as new innovations are being introduced to the school system. Otunla and Baiyelo (2013) also observed that computers and Information Communication Technology (ICT) tools and resources such as the Internet, multimedia design, digital motion pictures, digital photography, web broadcasting; and digital print-

ing, teleconferencing, video-conferencing e.t.c. have greatly influenced mode of transaction and the way people relate in the last one and a half decades. Therefore, ICT has permeated every aspect of human existence because it has become an indispensable tool for daily living and especially the educational system. Otunla and Akinyemi (2014) noted that application and integration of mobile technologies in higher education could enhance effective communication between lecturers and students within and outside the four walls of the classroom. More recently, Ezekoka (2015) conducted a survey involving a sample of sixty lecturers in a Nigerian public university on availability of ICT facilities that could promote collaborative learning to increase the level of students' online participation. The author presented some problems encountered by the participants which hindered their optimal performance in online collaborative learning.

At the continental level Uys, Nleya and Molelu (2004) based on an outcome of three case studies of technological adoption within the African continent and abroad suggested that technology needs in Africa could be implemented within a combination of strategically developed framework for technology innovation diffusion. Subsequently, Mtebe, Dachi and Raphael (2011) from their findings on use of technology to improve teaching and learning outcomes in higher education, identified two key issues which are; the need to address problem of university teachers' readiness to accept change in their belief-system about teaching and the use of technology, as well as barriers to access required technologies in terms of hardware and software. Further, Nagunwa, and Lwoga (2012) enumerated some initial challenges faced in their university while they made an attempt to implement computer-based curricula by adopting e-Learning approach and presented the strategic re-establishment of an e-Learning approach. Therefore, it is glaring that higher institutions in Nigeria and African continent at large are taking advantage of the digital media and technologies to support and restructure their mode of teaching

9 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/nigerian-undergraduate-students-computer-competencies-and-use-of-information-technology-tools-and-resources-for-study-skills-and-habits-enhancement/183942

Related Content

A New Heuristic Function of Ant Colony System for Retinal Vessel Segmentation

Ahmed Hamza Asad, Ahmad Taher Azarand Aboul Ella Hassanien (2014). *International Journal of Rough Sets and Data Analysis* (pp. 15-30).

www.irma-international.org/article/a-new-heuristic-function-of-ant-colony-system-for-retinal-vessel-segmentation/116044

Hexa-Dimension Metric, Ethical Matrix, and Cybersecurity

Wanbil William Lee (2021). *Encyclopedia of Information Science and Technology, Fifth Edition* (pp. 411-427).

www.irma-international.org/chapter/hexa-dimension-metric-ethical-matrix-and-cybersecurity/260203

Design of Health Healing Lighting in a Medical Center Based on Intelligent Lighting Control System

Yan Huangand Minmin Li (2023). *International Journal of Information Technologies and Systems Approach* (pp. 1-15).

www.irma-international.org/article/design-of-health-healing-lighting-in-a-medical-center-based-on-intelligent-lighting-control-system/331399

Coupling Analysis of Seepage Stability in Tailings Pond Based on 3D Numerical Simulation and Machine Learning

Cheng He, Shiguo Sun, Wenzhe Gengand Xin Zhang (2026). *International Journal of Information Technologies and Systems Approach* (pp. 1-16).

www.irma-international.org/article/coupling-analysis-of-seepage-stability-in-tailings-pond-based-on-3d-numerical-simulation-and-machine-learning/402009

Getting the Best out of People in Small Software Companies: ISO/IEC 29110 and ISO 10018 Standards

Mary-Luz Sanchez-Gordon (2017). *International Journal of Information Technologies and Systems Approach* (pp. 45-60).

www.irma-international.org/article/getting-the-best-out-of-people-in-small-software-companies/169767