ICT IN EDUCATION AMONG HIGHER EDUCATION STUDENTS
(A case study of The Polytechnic, Imesi-Ile, Osun State)

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ABSTRACT

Introduction of ICT usage, integration and diffusion has initiated a new age in educational methodologies, thus, it has radically changed traditional methods of teaching and learning patterns in the domain as well as offering contemporary learning experiences to both instructors and students. In this study, we have tried to measure the knowledge of one Higher Educational Institution; Department of Computer Science, the Polytechnic Imesi-Ile, Osun state, Nigeria. Global communication is accelerating at breakneck speed as a result of proliferating Information Communication Technology. ICT helps students to have an open and flexible mind. This will help the students to adjust to the inevitable future changes. One of this is the integration of ICT across the curriculum. At this stage student are introduced to basic programming, modeling and software application of technology everyday life. The study will answer the question of what student can do with ICT and the degree of ICT usage at their level. This project was introduce purposely to standardize the academic landscape in Nigeria includes the teaching *and learning process, along with the educational programs and courses and the pedagogy or methodology of teaching; the research process, including dissemination and publication. ICTs are a potentially powerful tool for extending educational opportunities, both formal and non-formal, to previously underdeveloped constituencies or rural populations groups traditionally excluded from education due to cultural or social reasons such as ethnic countries, girls and women, persons with disabilities, and the elderly, as well as all others who for reasons of cost or because of time constraint are unable to enroll on campus. A questionnaire was designed and distributed on the usage of ICT among final year students at the polytechnic Imesi-Ile in Osun State. The study clearly reflects the level of knowledge that is important slices of higher education students have. And this revealed the usage of ICT education among final year student is still something to write home about, ICT has a very wide coverage among students.*

Keywords: ICT; education; higher education; institution; challenges, issues, opportunity

INTRODUCTION

Advances in information and communication technologies (ICTs) have posed complex problem for colleges and universities in Sub-Saharan Africa [1], especially in their education programs to reaching the goal of promoting the development of a knowledge society. Education, also called learning is a form of education in which there is normally a separation between teachers and learners. Thus, it includes one which others may refer to as a means of the printed and written word, the telephone, computer conferencing or teleconferencing used to bridge the physical gap between the instructor and the learner.

Education equally involves the provision of whatever educational opportunities that are needed by anyone, anywhere, at any time for those who otherwise would have been denied. Improving the quality of education through the diversification of contents and methods and promoting experimentation, innovation, the diffusion and sharing of information and best practices as well as policy dialogue are UNESCO's strategic objectives in Education [2.3]. By itself, information and communication technologies (ICTs) literacy rate have become key tools that has a revolutionary impact of how we see the world and how we live in it. ICT literacy is the capability (knowledge, skills and aptitude) of a person to identify, search effectively and present specific information in order to build knowledge and develop critical and creative thinking pertinent to a field of study. This phenomenon has given birth to the contemporary and advances in our ways of life. ICTs are having a revolutionary impact on educational methodology at conventional levels globally.

However, this revolution is not widespread and needs to be strengthened to reach a large percentage of the population. In a complex society like Nigeria, many factors affect education. Therefore an interdisciplinary and integrated approach is very necessary to ensure the successful development of Nigeria's economy and society [4]. The academic landscape in Nigeria includes the teaching and learning process, along with the educational programs and courses and the pedagogy or methodology of teaching; the research process, including dissemination and publication. According to the national policy on education, Federal Republic of Nigeria (1989), higher education refers to post-secondary section of the national education system which is given in Universities, Polytechnics and Colleges of Technologies including such courses given by Colleges of Education.

ICTs are a potentially powerful tool for extending educational opportunities, both formal and non-formal, to previously underdeveloped constituencies or rural populations groups traditionally excluded from education due to cultural

or social reasons such as ethnic countries, girls and women, persons with disabilities, and the elderly, as well as all others who for reasons of cost or because of time constraint are unable to enroll on campus.

- Anytime, anywhere, One defining feature of ICT is their ability to transcend time and space. Make possible asynchronous learning i.e learning characterized by a time lag between the delivery of instruction and its reception by learners. Online course materials, for example, may be accessed 24 hours a day, 7 days a week.

  ICT-based educational delivery (e.g. educational programming broadcast over radio or television) also dispenses with the need for all learners and the instructor to be in one physical location.

  Additionally, certain type of ICTs. Such as teleconferencing technologies enable instructions to be received simultaneously by multiple geographically dispersed learners (i.e. synchronous learning).

- Access to remote learning resources:

  Teachers and learners no longer have to rely solely on printed books and other materials in physical media housed in libraries (and available in limited quantity) for their educational needs.

  With the Internet and the World Wide Web, a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere at any time of the day and by an unlimited number of people. This is particularly significant for many schools in developing countries, and even some in developed countries, that have limited and outdated library resources. ICTs also facilitate access in resource mentors, experts, researchers, professionals, and business leaders.

This paper seeks to access any impact of ICT usage in education among students of higher education as well as identify the motivation factor for ICT usage among any students.

CHALLENGES OF ICT

ICT play a key role as enabler to help us better manage the complex information flow and to integrate such information towards effective policy formulation and planning towards the utmost maximization of human capital and potential in society. Thus, it involves the development of effective and integrated tools as well as training modules to enable their application through effective education agendas [5].

It was noticeable that the high hopes and enormous enthusiasm by the Federal and State governments in the establishment of open and education programs as mentioned above in the review are hampered by the realization that Nigeria is faced with serious challenges. These challenges faced by Nigerian education agendas are in the areas of ICT usage, integration and diffusion. African countries have had to deal with the notion that education amounts to quality education are cheap. That is a misconception. The principle of economies of scale operates from a base of adequate and quality infrastructure, capital provision and machinery; from adequately trained staff, excellent learner support systems and support functions like postal service sand telecommunications provision that are reliable, efficient and affordable. In many African countries none of this can be guaranteed [6]. Inclusive in the challenges faced by education providers is the needed ICT competencies in order for the programs to. ICTs competencies involves but not restricted to the use of an online catalogue to identify and locate resources for a specific information need, keyword search strategies to refine operational Situations, browser and search engine to locate and retrieve appropriate information and the effective use of other ICTs instructional materials that aid teaching and learning situations.

Obviously, electricity, internet, computers, telecommunications and postal services must be   developed to levels that could support the declared state of education [7]. Possibly, another grave challenge facing education at this level is the need for the integration of new ICT knowledge into academic courses and programs. This state of affairs grew mainly from the political isolation that Nigeria experienced during the military eras. Nigeria's professionals were not able to benefit from international assistance or from courses, conferences and seminars abroad (source).

ICT AND EDUCATION

Information and Communication Technologies (ICTs) are advances in technologies that provide a rich global resource and collaborative environment for dissemination of ICT literacy materials, interactive discussions, research information, and international exchange of ideas, which are critical for advancing meaningful educational initiatives, training high skilled labor force, and understanding issues related to economic development. ICTs highlight innovative efforts and partnerships and promote ICTs literacy, and facilitate interaction between all sectors of a national economy including external spheres. Higher education institutions across the world have been adopting ICT teaching and learning technologies in an effort to create an environment for both students

and their instructors to engage in collaborative learning environment and gain access to information. Access to information through ICT is the amount of information accessible to individuals to support them in trying new strategies; thinking and creativity tha0t are reflective in practice aimed at engaging them to new innovations through the use of ICTs.

Information and communication technologies (ICTs)are indispensable and have been accepted as part of the contemporary world especially in the industrialized societies. In fact, cultures and societies are adjusted to meet the challenges of the knowledge age. The pervasiveness of ICT has brought about rapid changes in technology, social, political, and global economic transformation [8.9]. As such, every nation invests heavily in higher education because it can produce unquantifiable benefits for individuals, organizations and the society as a whole. Education is provided through formal and informal means. Informal settings the conventional (face-to-face instruction) and education (offered with separation in terms of physical location of instructors and students) have been used to provide educational opportunities to recipients. Open-end education though not new in Nigeria has been given much prominence of recent.
Many Nigerians benefited through the open education (correspondence) of Rapid Result College, and Exam Success Correspondence College, among others. It is also a means of providing access to basic information and tertiary education for Nigerians [7].

Notwithstanding the keenness by the federal and state governments to guarantee open-end education in Nigeria, the use and penetration of ICTs in education, teaching and learning has been a major obstacle that may have impeded proper implementation of the program by institutions of higher learning.

METHODOLOGY
A. Data collection
This research employs the use of questionnaires for primary data collection after which the results were subjected to further analysis. The source of data for the study is based on primary data. A questionnaire has been designed and distributed on the usage of ICT among final year students at the Polytechnic Imesi-Ile in Osun State.

The questionnaire has eleven basic questions about the usage of ICT and its related concepts. This research was conducted among 46 students in the

Department of Computer Science. TIME FRAME: This study was conducted in the second semester of 2011/2012 academic year.

B. Data analysis

The first part of questions was designed to reflect the student degree of interest about ICT. The result shows that majority of students have heard about ICT, the percentage of those that cannot operate computer is just 2.1%, while the percentage of those that can operate computer system is 97.9%, this simply means there exist a large number of computer operators than those that which is very impressive as it shows that people are highly interested in ICT education.

The second part of the questions designed was to know the number of student who owned a computer set, and it was discovered that 98% of the student own a computer set and 2% do not, this also show that the degree of system owner is more compare to the degree of those that do not own a system.

The third part of the questions was designed to know the number of student who has e-mail address because email address is another means of ICT usage which enables a user to send and receive messages to one and many at a time, and it was   discovered that 100% of the student has an email address, but only 68.7% are regular users while 31.2% do not use the email regularly.

Another part of the designed questions was to know   the number of students who uses a mobile phone because a mobile phone is another type of ICT, and it was discovered that 100% of the student has and use a mobile phone, this is another part of ICT usage among students.

During the research work it was also discovered that 100% of the students use the internet, while 100% use the internet for research work 47.9% of students use internet for socials such as face booking, twitter and many more while 52.1% of the student do not, also 43.7% of the students uses the internet for mailing while 56.3% does not, 10% use the internet for services such as product advertisements, while 90% does not.

Also on the question designed, attempt was made to know the number of student who owns a scanner and also a flash drive, and it was discovered during the research that 4% of the student has a scanner while 96% does not, also 72.9% of the student has flash drive while27.1% does not have a flash drive. The above data analysis is represented in Figure 1
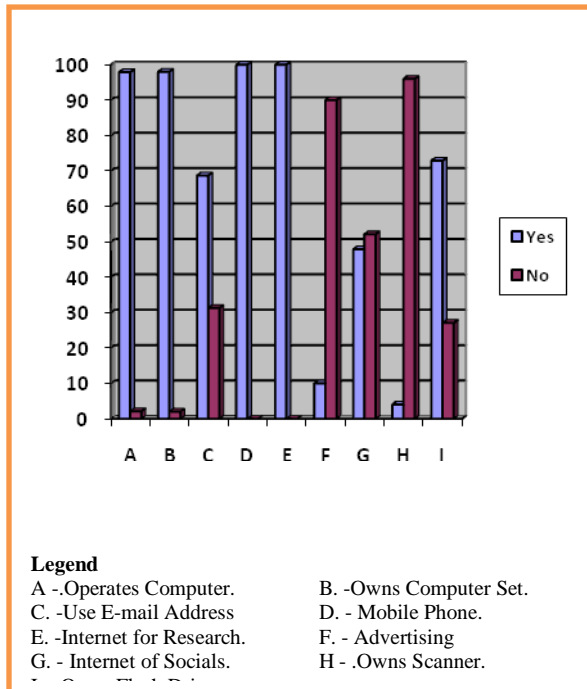
Legend
A -.Operates Computer.   B. -Owns Computer Set.
C. -Use E-mail Address   D. - Mobile Phone.
E. -Internet for Research.   F. - Advertising
G. - Internet of Socials.   H - .Owns Scanner.

Figure 1: ICT Usage

LIMITATION

From the research methodology perspective, this study was characterized by a number of limitations. By design, it was an investigation based on a small size of literature. Therefore, we recommend that bigger studies based on a larger size of literature will be in the right direction, which might also involve quantitative studies. These limitations were considered when evaluating the findings in this study. For instance, they raise the possibility that some differences in opinion may be more a function of research design and contextual factors than a result of any differences in education studies. As with many qualitative studies then, the findings should not be regarded as definitive but as offering educators, researchers, administrators a view of the authors' reality.

FINDINGS AND DISCUSSION

The study clearly reflects the level of knowledge that important slices of higher education student have. And it is revealed that the usage of ICT education among final year student is still something to write home about, ICT has a very wide coverage among student.

The direct reasons of the present and wide coverage of ICT among higher institution student could be summarized as follows:

a. There are now ICT educations in higher institution and even from primary education one would have start coming across ICT usage.
b. Technology is advancing day by day, which means if you are not informed you will be deformed.
c. The ministry of Higher Education is now requesting the higher education organization to update their syllabi and study plans based on new fields of study worldwide.
d. Most project work cannot be done without the use of ICT.

CONCLUSIONS

While students especially in higher education stage are forming a crucial component of society, because they will be the decision makers in the industry, an important attention should be paid to the quality and contents of education that they get in their colleges and universities. Because of the importance of ICT nowadays, the following are highly recommended to cope with the usage of ICT in higher education.

a. Whereas the ministry of Higher Education is responsible for all academic issues, it should require and obligate all higher education organizations to revise and update their majors , syllabi and study plans every two years to enable them to add any new valuable topics or courses.
b. All institution and colleges should organize sanitization workshops for the students on the use of ICT.
c. The students should be encouraged, to always use their e-mail regularly, this will take care of the 52.1% that are not using the internet for mailing purpose.
d. To ensure standardization and uniformity in meeting the global trends in the highly competitive demand for excellence in education programs aimed at producing highly qualified manpower need.
e. Governments in Africa should embark on a comprehensive program of recapitalization of higher education. Therefore, the governments should move from the traditional position of paying lip service or little attention to empowering higher education and education programs to a pro-active stands by funding, monitoring and controlling their implementation as a way of ensuring standard. Accordingly, making sure that adequate and functioning ICT infrastructures are available, like electricity, telecom equipment and effective postal system and making these infrastructures accessible to organizers of education programs and its citizens at large.

f. Infrastructure as well as organization of programs should be better designed so that management and students can have better plan for unanticipated and unintended results that confront them as they operate.

Finally, the findings and nature of this study contain implications for education administrators, teachers, and researchers.

At a broad management level, this study supports decisions by national educational systems to make a balanced investment in education programs and providing resources needed to effectively implement the use, integration and diffusion of ICT in learning rather than paying lip services.

Endnotes

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