

EFFECTIVE UTILIZATION OF ICT FOR REPOSITIONING OF LIBRARY AND INFORMATION SCIENCE EDUCATION IN TERTIARY INSTITUTIONS IN NIGERIA

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ABSTRACT

The dynamism in the activities of organization as well as the mode of transmission and exchange of information in the globalized economy call for transformation in teaching and learning process of library and information science to reflect on the emphasis on the use of information and communication technology (ICT). This study therefore tries to find out the effective utilization of ICT for repositioning library and information science education programme in four tertiary institutions in Nigeria. Three research questions and three null hypotheses guided the study. Descriptive survey design was adopted for the study. The study was carried out in four tertiary institutions in Nigeria offering Library and Information science education. The population of the study comprised 158 final year students and 33 lecturers of library and information science. The entire population was studied A 42 item questionnaire was used for data collection. The research questions were answered using mean and standard deviation while the hypotheses were tested using t-test statistics at 0.05 level of significance. It was found that ICT was not effectively utilized in the tertiary institutions studied because of many problems. However, many strategies for enhancing the effective utilization were identified. It was, therefore, recommended that government and management of the institutions should endeavor to ameliorate the problems with the identified strategies.

INTRODUCTION

In our contemporary society, where education has become the hub upon which economic development rotate, the place of library and information services cannot be ignored. Library and Information science programme is designed to assist students in the development of a wide range of technical skills in both library and media services that can lead to or enhance employment in the field of librarianship and other related industries.

Education in Library and Information Science has taken a new turn in the face of far-reaching developments sparked off by the trend towards globalization. Although the challenges for libraries in Africa have been enormous, they are not insurmountable given our human capacity to adapt to change. It is largely true that libraries in Africa are adapting to change particularly on innovations brought about by the application of ICT. Library and information science professionals are not only having to adapt to change in library services but also require in-depth and structured education and training programmes for occupation engagements in all library types. However, one important aspect of such professional discourses derive from the search for suitable, relevant academic and professional programmes is one that should be made available in our library schools in response to societal needs based on the various library types (Lawal, 2008).

Aina (2004) stated that Library and Information Science Programme is a large and active profession covering important fields as journalism, broadcasting, librarianship, archives, records management, printing, publishing, booktrade, museum and information communication technologies. Library and Information Science education contributes greatly

in the economic growth of any nation and has become an indispensable tool for development in this era of globalisation. Library and Information Science education plays a significant role in the educational achievement of any nation. The field of Library and Information Science is undergoing immense transformation and this has affected the landscape of Library and Information parlance. In our contemporary society, where education has become the hub upon which economic development rotate, the place of library and information services cannot be ignored.

Library and Information Science programme is designed to assist students in the development of a wide range of technical skills in both library and media services that can lead to or enhance employment in the library field. Library and Information Science graduates are expected to possess ICT skills in order to be relevant in the new information arena within which to apply the ICT skills (Anyanwu, Oduagwu & Amaechi, 2013). We are living in a complex and hybrid information environment that is highly competitive and as such the graduates of Library and Information Science ought to be fully equipped with ICT skills that will empower them to reposition themselves in the society where unemployment is high.

According to Omekwu (2005), information technology has revolutionized the acquisition, storage, and retrieval processes. The application of ICT in libraries has widened the scope of librarianship, conferred new roles on libraries, and has placed more demands on the ability of librarians. Karisiddappa (2004) stresses that the contemporary environment indicates a pressing need to educate and train library students towards sustainable professional competence. Library and information science programmes are skill-oriented, and to acquire adequate skill, training must occur in the appropriate environment.

Oluwarobi (2012) defined ICT as electronic-based technology that is generally used to retrieve, store, process, and package information as well as provide access to knowledge. The development of microcomputers, optical disc, the establishment of telecommunication network, television, internet, among others, has assisted in broadening people's knowledge and facilitating effective communication. According to Ebijuwa (2005), Information and communication technology (ICT) is defined as tools used for collection, processing, storage, transmission, and dissemination of information.

According to Anyokoha (2005) ICT is defined as the electronic means of capturing, processing, and storing and disseminating information. World Bank (2002) views Information and Communication Technology (ICT) as consisting of hardware, software, networks and media for collection, storage, processing, transmission and presentation of information.

ICT is one of the major innovations that is taking place in Nigerian education system, particularly at the tertiary level. The introduction of ICT in teaching and learning methods in Nigeria has affected the whole process of educational service delivery. The emergence of ICT in Nigeria is the beginning of the 21st century made Nigeria government to review school curricula to include modern technologies for balanced education and training of the citizenry (Ede, 2009).

ICT is a powerful tool which can take the form of texts, pictures, tables, graphs, e-mails, fax, chat groups, discussion groups, SMSs, socializing portals, dictionaries, e-encyclopedia, Power Point Presentations, Websites and audio-videos, among others. It can play instructional roles which include making learners feel more relaxed to learn various topics

and tasks and making them active as learning is technologically based. Yunus citing Fleckknoe (2002) states that ICT can be used in facilitating various forms for online conferencing and creating virtual discussion with friends or teachers online. This online conference enables teachers or students to share information with their peers and friends who are staying far apart across the oceans.

In the view of Mohammed (2003), the need for the provision of library and information science education and the acquisition of relevant knowledge, techniques and skills for effective and efficient library and information work is needed now more than before due to differences in library and information systems, services and infrastructure to cope with the changing needs and expectations of the 21st century people, societies, communities and institutions. He further asserted that, the emergence of a knowledge-based society in the 21st century poses new challenges to the Nigerian education system. Increasing globalization and rapid technological change now call for re-examination of education's pivotal role in Nigeria. On the strength of this in the information age, education must not only be seen as an initial activity preparing library and information science students for productive life, but rather a continuous necessity to cope with society's changing needs. However, the provision and utilization of library and information science education world-wide and the acquisition of relevant knowledge, techniques and skills is predicated on the need for the provision of efficient library and information services and infrastructures to cope with the changing needs and expectations of the 21st century people, societies, communities and institutions.

ICT is now offered in part or full at all levels of education either as a course of subject. In Polytechnics and Universities that offer Library and Information Science Education, ICT is gaining ground in the teaching and learning of courses in librarianship and archival management which include (Introduction to Information and Communication Technologies, Computer practical I, Introduction to Information Science, Information Technology Applications, Resources sharing and Information Networks, computer Practical II, System Analysis in Information Centers, Online Data Bases and Data Banks, Development of Software packages for Library and Information Centers) are some of the terminologies that denote the utilization of ICT in teaching and learning.

According to UNESCO (1990), educational systems all over the world are under increasing pressure to use ICT to teach students the skills and knowledge they need in the 21st century. It was noted by UNESCO; that ICT have radical and positive implications over the conventional teaching and learning methods. It therefore, predicted a transformation of the teaching/learning process and the way teachers and students gain access to knowledge and information. Similarly, the United Nations Development Programme (2010) refers to ICTs as a "power enabler of development" because of the significant impact on the economic, scientific, academic, social, political, cultural and other aspects of life.

The use of ICT in teaching and learning needs provide students their specific learning needs and styles more especially for the disadvantaged and handicapped students, (Ugwoke, 2011). He further maintained that students can work independently and cooperatively with instructional sheets or packets that provide detailed directions for learning. Teachers who have in-depth knowledge and stronger management skills in ICT would certainly perform better in utilization of ICT for instructional delivery. Ugwoke in Dimelu (2010) enumerated the benefits of using ICT for teaching and learning as instructional materials. The benefit, according to him is that it helps teachers to present information in many forms: learners become confident in learning process; learners communicate effectively on any process and

students can become independent learners and can work collaboratively with others. ICT enhances active, evaluative and creative learning techniques of students in a learner-centred environment.

ICT has potential application in many areas of library and information science education. It can be used to teach computerized classification and cataloguing for the purpose of storage and retrieval of information in libraries and information systems. ICT is very useful in teaching students on how libraries can go into cooperation with one another via computers i.e. information networks. It is also useful in electronic presentation of instruction (power point) and in all forms of electronic learning (e-learning) with the lecturer as a facilitator and mentor. ICT applications are available in all the functional areas of library and information science education including circulation system, reference services, indexing and abstracting services, compilation of bibliographies, among others.

Library and Information Science Educators in tertiary institutions need to be competent in the use of ICT for effective teaching and research, so as to have a good knowledge society. Effective utilization of ICT is very important in all the component areas of Library and Information Science Education which includes acquisition, organization of materials (storage and retrieval), reference, indexing and abstracting, compilation of bibliographies, records management, among others. An elaborate use of ICT in the implementation of Library and Information Science education will in no small measure assist Nigeria to achieve her vision 20:2020.

Library and Information Science education in Nigeria today cannot be relevant without effective preparation of new generation of librarians to effectively use the new Information and Technology in their professional practices (Edegbo, 2011). Library Schools according to Aina and Moahi (1999) are expected to impart the necessary Library and Information skills to their students so that after graduation, the graduates can be expected to function effectively in libraries and other information related work settings with minimal supervision.

Despite the tremendous benefit of ICT to both Library and Information Science Educators and students, most library and Information Science graduates can neither be self employed nor secure paid employment because they do not have the technological requirements of modern Information system.

It is not yet certain that ICT is effectively utilized in teaching and learning of Library and Information Science Education in institution in Nigeria with widespread unemployment of the graduates and the myriad of problems hindering the effective use of ICT in the institutions.

The major purpose of this study was, therefore to determine the effective utilization of ICT for repositioning Library and Information Science Education in tertiary institutions in Nigeria for national development. Specifically, the study sought to ascertain the extent of utilization of ICT in Library and Information Science Education in tertiary institutions in Nigeria. The study also sought to identify the problems that hinder effective utilization of ICT in Library and Information Science Education in the tertiary institutions under study. The strategies for enhancing effective utilization of ICT in Library and Information Science Education in the tertiary institutions were also explored.

METHODOLOGY

Description survey research design was adopted for this study to assess the opinions of the library and information science lecturers and students on the problems and strategies for the effective utilization of ICT in library and information science education in tertiary institutions in Nigeria. The study was conducted in four universities offering library and information science, namely; University of Nigeria, Nsukka, Nnamdi Azikiwe University, Awka, Federal University of Technology, Minna and Benue State University, Makurdi. The population of the study was made up of 158 final year students and 33 lecturers. The entire population of 191 was studied because it is manageable.

A structured questionnaire consisting of 42 items was used to elicit information from the respondents on a four point Likert scale. The research questions were answered using mean and standard deviation while hypotheses were tested using t-test statistics at 0.5 level of probability.

RESULTS

RQ1: What is the extent of utilization of ICT in Library and Information Science (LIS)?

Table 1: Mean ratings of lecturers and students on extent of utilization in LIS

Status	N	Mean	SD
Lecturer	33	2.34	0.922
Student	158	2.20	0.931
Difference		0.14	

Results from table 1 indicates a mean rating of 2.34 for lecturers with standard deviation of 0.922 while the mean rating of students is 2.20 with standard deviation of 0.931. There is a mean difference in ICT utilization of 0.14 in favour of the lecturers. To be sure if the difference is significant or not we test hypothesis 1.

H_{01} : There is no significant difference in the mean rating of lecturers and student on the extent of utilization of ICT in Library and information programme (LIP)

Table 2: T-test Analysis on Extent of Utilization of ICT

Status	N	Mean	T	df	P-value
Lecturer	33	2.34	2.896	189	0.04
Student	158	2.20			

Results from table 2 show a t-test value of 2.896 at 189 degree of freedom. The t-value is significant. This is because the P-value of 0.04 is less than the α -value of 0.05. The null hypothesis is therefore rejected. This implies that there is a significant difference in the rating between lecturers and students on extent of utilization of ICT in LIP.

RQ2 What are the problems that hinder effective utilization of ICT in LIS

Table 3 Mean rating of lecturers and students on problems that hinder effective utilization of ICT in LIS

Status	N	Mean	SD
Lecturers	33	3.09	0.818
Students	158	3.10	0.811
Difference		0.01	

Results from table 3 reveal a mean rating of 3.09 and 3.10 for lecturers and students respectively on problems that hinder effective utilization of ICT in LIS. There is a mean

rating difference of 0.01 in favour of the students to test the significance that difference we test hypotheses is 2

Ho₂: There is no significant difference in the mean rating of lecturers and students on the problems that hinder effective utilization of ICT in LIP

Table 4: t-test Analysis on Problems of Effective Utilization of ICT in LIP

Status	N	Mean	df	t	P-value
Lecturer	33	3.09	189	0.176	0.861
Students	158	3.10			

Results from table 4 reveal a t-value of 0.176 which is not significant because the P-Value of $0.861 > 0.05$. The null hypotheses is therefore not rejected. This implies that there is no significant difference in students and lecturers ratings on problems that hinder the use of ICT in the LIP

RQ3: What are the strategies for enhancing the effective utilization of ICT in LIS

Table 5: Mean rating of lecturers and students on strategies for enhancing effective utilization of ICT in LIS

Status	N	Mean	SD
Lecturers	33	3.23	0.747
Students	158	3.19	0.797
Mean difference		0.04	

Results from table 5 shows mean rating of 3.23 and 3.19 for lecturers and students respectively. The mean difference in rating of 0.04 is in favour of the lecturers. Whether or not the mean difference in rating is significant, we test hypotheses.

Ho₃: There is no significant difference in the mean rating of lecturers and students on the strategies for enhancing effective utilization for enhancing utilization of ICT in LIP

Table 6: t-test analysis of lecturers and students ratings on strategies for enhancing ICT utilization

Status	N	Mean	df	t	P-value
Lecturers	33	3.23	189	1.105	0.269
Students	158	3.19			

Table 6 shows the t-value of 1.105 which is not significant. This is because the P-value of 0.269 is greater than 0.05. The null hypothesis is therefore not rejected. This implies that there is no significant difference in the mean ratings of lecturers and students on the strategies for enhancing effective utilization of ICT in LIP

DISCUSSION OF FINDINGS

The result of this study indicated that most of the information and communication technology (ICT) tools studied were not extensively utilized. However, computer related devices like disc, USBs, and CDs were utilized most times in the tertiary institution. The in extensive utilization of the ICT tools might be because of non-availability of the ICT facilities, library and information science educators' apathy on the use of ICT in their teachings as well as the incompetency of the lecturers and students. This is in line with Nwaokolo (2010) that most educators' do not utilize ICT in teaching and learning because they do not have the needed skills and dearth of the facilities to use.

Many problems, as revealed by the findings are hindering the effective utilization of ICT in library and information science education in tertiary institutions under study. The problems

include: inadequate ICT facilities and infrastructures, high cost of acquisition and maintenance of ICT facilities, shortage of ICT-skilled lecturers and instructors, and inadequate funding of programmes. Other problems are inadequate technical support, incessant power failure and lack of incentives to the lecturers. The result of the study also indicated that haphazard integration of ICT with the curriculum as well as delay in curriculum update and review is among the problems hindering the effective utilization of ICT in the library and information science education in tertiary institution.

Furthermore, the result of the study revealed many strategies for enhancing effective utilization of ICT in library and information science education in tertiary institutions. Organization of ICT capacity building programmes for lecturers and students, motivation of lecturers and adequate provision of ICT facilities and infrastructures for teaching and learning, among others were the strategies identified for enhancing effective utilization of ICT in library and information education programmes in tertiary institutions.

Periodic organization of workshops, seminars and conferences on ICT for lecturers and students was also revealed by the result of this study as a strategy for enhancing the effective utilization of ICT in library and information science education programmes.

CONCLUSION

Effective utilization of ICT in library and information science education programmes in tertiary institutions is of paramount importance in the economic development of Nigeria, especially for the attainment of the country's vision 20:2020. Unfortunately the four tertiary institutions studied do not extensively and effectively utilize ICT in the implementation of library and information science education programmes because of many problems. The problems include inadequate ICT facilities and infrastructures as well as lack of adequate skills in ICT by library and information science lecturers. However, many strategies could be adopted to enhance the effective utilization. It was therefore, recommended that government and the management of the tertiary institutions together with good spirited individuals and corporate organizations should endeavor to ameliorate the problems with all the strategies identified by this study.

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