THE PROSPECT OF ACADEMIC LIBRARIES IN THE 21ST CENTURY: CHALLENGES FOR INFORMATION AND COMMUNICATION TECHNOLOGY IN DISTANCE EDUCATION

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Abstract

The 21st Century has clearly shown that the information technologies are changing and growing at a tremendous speed. The impact ICT has influenced every facet of library and information services in academic libraries and providing new opportunities and challenges to the library professionals for involvement in the knowledge based society. The information revolution and the knowledge that is available on the web have created new challenges to these traditional professional ethics. The emerging challenges of acquiring and providing access to electronic knowledge resources require librarians to change their role from traditional librarian to information scientist by learning and applying new skills to understand the evolving technologies to manage and provide quality on-line information services to distance education. This review examined the status of ICT in library, integration efforts of ICT in library, benefits of ICT, and challenges of ICT integration. The paper recommended among others the need to review the curricular of library schools to incorporate ICT; and also the urgent need for policy development by the government which will create an enabling environment for all stockholders in building critical mass of ICT proficiency and competencies. There is the need for strategic and specialized ICT skills among academic staff of library schools in order to enhance their optimum productivity.

Keywords: ICT, Library, distance education, 21st Century.

The twenty-first century information professional must possess skills in selection, content management, knowledge management, organization of information, research services, developing and maintaining digital libraries, and bringing information resources to the desktop. People with the right skills are crucial to the success and competitiveness of contemporary information environments (Ciatt, 2009). The jobs of the librarians have become more competitive with similar professions such as those in information technology. Library professionals must acquire the relevant skills and expertise to be competent in a digital culture.
Information and Communication Technology (ICT) have increasingly become indispensable tools for development over the past few decades. Positive effects of ICT have continually been noted in business, production, education, politics, governance, culture and other aspects of human life. In higher education, ICT have great influence in teaching, learning, research and other scholarly and professional activities through improved communication and access to information. In libraries, ICT have greatly simplified acquisition, organization, storage, retrieval, provision and usage of information. The Internet and CD-ROMs for example, have greatly enhanced access to a range of current information resources. In sum, ICT have improved provision of library and information services by overcoming time, distance and other barriers. However, it is widely agreed that ICT adoption in libraries is not a panacea to all library problems as initially presumed. Despite their tremendous potential, ICT have also brought new challenges that must be overcome in order to increase effectiveness and efficiency of libraries in developing countries for distance education.

Within the last few decades, certain scientific and technological changes have appeared and their impacts on the functions and services of academic libraries have been conspicuous. Such introduction as the Web browsers and mobile devices, have had a major and revolutionary impact on the academic library as well as the society. The use of ICT in the library world acts as a catalyst for change in the domain ICTs by their very nature are tools that encourage and support independent learning. Users of ICT for learning purposes become immersed in the process of learning as more and more students use ICT devices as information sources and cognitive tools.

Since individuals have been using devices such as laptops and mobile phones for decades, one might argue that the impact of the use of mobile devices on people’s behaviour in general, and on academic library services in particular, has been relatively gradual. On the other hand, as devices with compelling new features emerge and wireless connectivity is almost ubiquitously available, we may be on the verge of a revolutionary phase of mobile impact on the future of academic libraries. Many academic libraries are experimenting with various types of reference services for user community and more specifically on the use of digital information resources.

The importance of ICT in academic libraries is no longer an issue for contention. The issues in contention are how academic libraries can ensure its survival by the continuous derivation of the benefits from new opportunities afforded by the application of ICT in tandem with traditional library service. It is in line with this thought or trend that this article will examine the future of academic library services using ICT. The article focuses on a few types of mobile devices; specifically, smart phones and e-book readers, selected applications for mobile devices, and provides some thoughts on the implications for library information and services.
The Academic Library

The academic library is the focal point around which serious and intense intellectual development and scholarship are birthed. It is a critical component, as well as indispensable instrument of intellectual, cultural and socio-economic symbolic and mutually beneficial relationship that exists between the academic library and the academic community. The academic library is indispensable, as it will best served when the it is well stocked to serve as the store house of information which users could resort to for data or information. It is also in this critical role that Terplan, (2000) argued that for centuries, academic libraries have been playing critical and important roles in supporting research in all subjects and disciplines within their host universities and colleges. Aina (2004) in his views on the importance of the academic library opined that he main purpose of academic library is to support the objectives of an academic environment in the areas of learning, teaching, research and services.

Taking a conceptual approach to the critical role of the academic library, Ezell (2009) opined that academic libraries are established, owned, and funded by universities and colleges for the purpose of providing support services in the areas of research, learning and teaching. Therefore, it could be inferred form the views expressed thus far that the primary aim or objective of an academic library is to offer those who may be said to constitute its primary clientele (the faculty students and academic staff of the university or college) the academic and research services in support of the programmes of the university of which it is part. The major functions of academic libraries are derived from Obunadike’s (2010) definition of the function of a library as “to enable inquirers to identify library materials relevant to their inquiries and to supply them with copies of the materials for their use”. It is in line with these views that Ajibero (1995) viewed the materials library as the heart of the university or college. Thus, the functions of the academic libraries can be summarized as:

a. To fulfill both the needs of the instructional programme of the parent institution and the research needs of the students, faculty staff members and people outside the academic community through the collection and acquisition of knowledge in all formats;

b. To organize knowledge for easy storage and retrieval, the technical processes, which include ordering, receiving, accessioning, cataloguing, classification and preparing materials for their students and faculty, the academic libraries provide maximum access to collections;

c. Making resources accessible to users and preserving knowledge for posterity. In supporting the instructional research needs of their students and faculty, the academic libraries provide maximum access to collections.

From these are derived the services of the academic libraries which include:

i. User education (orientation/instruction services).
ii. Inter-library loan/connection services.
iii. Abstracting and indexing services.
iv. Bibliographical services.
v. Cataloguing and classification services
vi. Reference services
vii. Information services
viii. Circulation services

However, these traditional functions and services provided by the academic library are being threatened and challenged by newer innovations and inventions in the areas of information disseminations, storage and retrieval. The emergence of newer mobile devices and its influence and impact on the behaviours of information seekers is too conspicuous. In recent years, studies have revealed that students information-seeking behaviours and habits have changed remarkably. Utilizing the increasing ubiquitous internet and powered by ever-improving search engines, the World Wide Web (www) became the largest and easiest-to-us store house of information in the world.

As students and scholars turned in large numbers to the Web, few if any, argue that it was a trustworthy source of authoritative information. Suspicious of the quality of information found on the web did not discourage its attraction. However, statistics indicated that the use of the web and other ICT facilities continued to increase. The implication is enormous and unless academic libraries are willing to adjust and adopt innovations in the modus they operate, they may end up being edged into insignificance even in areas of their core competence.

**ICT facilities and Library Services:**

With the proliferation of information as well as the increased demand of users for such information, academic libraries face a numerous challenges. These include how to keep up with the rapidly changing technological landscape infiltrations in ICT applications, to administer library record, text messaging services which reminds users of book return dates, instant chat services and live lab initiatives involving the rental of mobile devices to users.

Ejedafiru and Akporhonor (2011) reported on prototype devices that include cameras that can record information, use it to find information relocated to an item and then projects that information onto a surface. An academic library user could aim the camera to a code on a book in their stacks, software could connect the code to information or reviews about the book, and then project that information onto a surface. The codes on labels are similar to bar codes that will link physical objects to information on the internet. Dempsey (2009) reported that the university of Bath in UK
is already using codes- specifically a type called OR codes (EDUCAUSE learning initiative, 2010), in its catalogues. A user can scan the code into his or her phone. In addition, the user can save the information provided by the code to begin compiling a bibliography. Also libraries have increased interactivity through social media platforms such as Facebook, Twitter, Youtube, Fomsquare, Tumblr and other mobile-ready social platforms.

The proliferation of ICT facilities will have implications for academic library space configuration and services. For example, academic libraries may want to offer large monitors and keyboards that students can use with their personal mobile devices. They may want to install lockets with electrical outlets so that students can recharge the rate of desktop computers to open tables as more students rely on their own devices. Currently, any students who own laptops do not bring them to campus, but students almost always bring their cell phones wherever they go. In fact, this is true of people of all ages and nationalities. In an international survey, three quarters of respondents said they never leave home without their mobile phones. A market research affiliated with the survey commented…” the mobile is part remote control, part security blanket, mobiles gives us safety, security and instant access to information. They are the number one tool of communication for us.

The Status of ICT in Nigeria library

There is an upsurge in the number of libraries in Nigeria in the last decade, coupled with the recent advancement in the ICT. Beside, ICT has become more important and widely used among different professions. In recent years, there has been a consensus of interest on how computers and the internet can best be harnessed to improve the efficiency and effectiveness of library education at all levels. Tinio (2002) postulated that ICTs greatly facilitate the acquisition and absorption of knowledge, offering developing countries unprecedented opportunities to enhance educational system, improve policy formation and execution, and opportunities for business. In spite of all these merits, print remains the cheapest, most accessible and therefore dominant delivery mechanism in Nigerian Library schools. The use of ICT to deliver lecture is still in its infancy in Nigeria, and this can be traced to limited infrastructure, inadequate qualified personnel, poor ICT polices, obsolete curriculum design and attendant high cost of access.

However, the reality of this new technology means that its introduction and integration in library education will be a great challenge. Failure to meet the challenge would amount to further widening of the knowledge gap and the deepening of existing economic and social inequalities between Nigeria and other developed countries. It is expected that this 21st Century library reconsider, re-shape and redesign their curriculum by incorporating new tools and technologies, upgrading information

The Prospect of Academic Libraries in the 21st Century: Challenges for Information and Communication Technology in Distance Education – Ramatu O. Okomanyi
resources and training of academic staff and information professional that are well equipped to take the profession to the great height. In a nutshell, global changes put pressure on librarians and information scientists to constantly acquire and apply new skills.

Many schools have embedded ICT into their curriculum, and have demonstrated low levels of effectives and appropriate ICT use to support teaching and learning across a wide range of the library courses. Hence, Ozioko and Nwabueze (2010) opined that library systems in Nigeria are largely dominated by conservative and unproductive practice. For the Nigeria library schools to face the challenges of the 21st century, the information studies programme in the various Nigeria library schools should undertake reform/innovation, which should emphasize information and communication technology both in theory and practice (Udoh, 2000). A cursory look at these challenges suggests that educational policies, programmes and methods of delivery of these libraries schools must undergo transformation in order to meet the requirements of the electronic age.

**Integrating ICT into Library in Nigeria**

The escalating demand for education at all levels in Nigeria and the compelling need to provide education for all irrespective of environmental, social or cultural circumstances have meant that the country must of necessity find the appropriate and cost effective means to respond adequately to the huge unmet demand for education (Ajadi, Salawu and Adeoyoe, 2008). The cost effective means of providing library education to all would be library and information scientist is through ICT. Hence, government efforts at integrating ICT in our library need to be visited. In the word of Okojie (2011): “as a quality assurance agency responsible for the development of university education in Nigeria, the NUC recognises the need to ensure that our educational institutions are at par with standards worldwide, to ensure the production of graduates and research developments that will be globally competitive. It is in this regard that NUC have been emphasising that technology should play a leading role in moulding our activities and those of the universities”.

In addition to this, the Education Trust Fund (ETF) and the National Information Technology Development Agency (NITDA) in 2005 have provided resources in providing ICT to tertiary institutions in Nigeria. Banks and multinational companies have also contributed their quota to the implementation of ICT in tertiary institutions. For example, MTN Nigeria has computerized some tertiary institutions libraries in Nigeria by constructing ICT compliance library. Aguele (2007) stated that there is a memorandum of understanding with a private firm to provide staff of tertiary institutions with personal computers under the computerize Nigeria Project (CNP). A look at all these suggests that the school libraries are not left out of this development.
is in the realization of these significant roles played by information in the development of a nation that library schools were set up. They are expected to train and produce the needed manpower for the nation’s information industry. Udoh (2000) led credence to this when he observed that there is a great demand for the services of information works (librarians, archivists, documentalists, corporate information analyst) in the Nigerian labour market. However, the onus of accomplishing this task lies with our library ability to incorporate ICT into their curriculum; because “the illiterate of the 21st Century” according to the futurist white (2010)” will not be those who cannot read and write, but those who cannot learn, unlearn and relearn”.

Benefits of ICT to Library

ICT is seen as the electricity of the information age and its access to library and information science education as a key to the process of development (Ozioko and Nwabueze, 2010). The pace of change brought by new technologies have had a significant effect on the way people learn, live, work and play worldwide. This challenge the traditional process of teaching and the way and manner library education is delivered. Here, resources for teachers and students are expanding as the demand for technology in these classroom increases. There is a growing evidence that ICT can enhance the quality of library education providing teachers and students with information and presenting standards that have never been available before. There is a general consensus that ICTs, especially computer and the internet, enable new ways of teaching and learning rather than simply allowing teachers and student to do what they have done before in a better way.

Tinio (2002) collaborated this by observing that these new ways of teaching and learning are underpinned by constructivist theories of learning and constitute a shift from a teacher-centred pedagogy (in its worst form characterized by memorization and rote learning) to one that is learner-centred. Besides, the students have also learned that the information highway is so vast and that the web can offer a wider body of knowledge that the teacher and the textbook cannot provide. A cursory literature search revealed the following benefits of ICT to library schools: enhances access to information; raising of the quality of library education; enhances and amplifies existing library school curricular; promotes student information and problem solving capability; recoding and analysing student achievement; and shifting teachers’ role in classroom from being the sole giver of information to being a facilitator of learning and manager of instructional resources. With all these benefits, it is therefore, necessary to advise that library schools in Nigeria must not risk becoming obsolete due to lack of information and communication technology abilities; and to emphasizes that every library school curriculum must incorporate technology in the classroom and in practice to meet the technology needs of today.
Challenges of Integrating ICT

Ogunsola (2004) opined that majority of higher institutions in Nigeria, even those with good internet connectivity, are still at a low level of the integration of ICT in teaching, learning, research, library and information science and managerial services. Hence, the capacity of library schools to lead the process of integrating ICT into education is woefully inadequate. Specifically, there are the challenges of affordable, insufficient bandwidth, and the human capacity to exploit the technology. According to the Federal Ministry of Education (2009), Nigeria is experiencing a severe shortage of ICT skills and personnel necessary for taking advantage of new and emerging technologies in the knowledge society.

This is compounded by a poor and expensive bandwidth provision, as well as poor and obsolete ICT infrastructure and services in the Educational system.

If these are the positions of higher institutions in general, then the position of library schools in particular to potential candidates is a heart attack. The state of unpreparedness of library schools can be traced to over concentration on the traditional courses in the discipline. These traditional courses were approved by the universities and the accrediting bodies; coupled with the bottleneck in designing new courses by most of the library schools. Another challenge has to do with the issue of qualified academic staff. Most of these schools are new and may be dominated by young lecturers who have no doctorate degree and little experience of teaching at the university level. Worst still, the few qualified lecturers (probably doctoral degree holders) may not be very knowledgeable in the application and adoption of ICT in library education. There is cadre variation in the attitude of academic staff towards ICT. Aguele (2007) in his study of ICT in universities in Nigeria revealed that junior library staffs are more favourably disposed to the use of the computer than senior colleagues. The author reported in his study that senior academic staff, only 16% of the participants indicated that they would like to use ICT tools in teaching and learning, while 84% of them were uninterested in the integration of ICT into teaching and learning.

The new breed information worker needs to be well trained and informed about tools for practising his or her profession. The onus therefore, lies on our library in general and our academic staff in particular to produce world class librarians which can only be possible through a world class library education driven by ICT. The collective resolve of library schools should depend on the extent to which our human capacity is developed and transformed to compete globally.

The Way Forward

The future prospects are bright, the use of ICT is beginning to get a wider approach in library schools in Nigeria. Today, the use of ICT to teach and plan
coursework, undertake projects and homework, and carry out experiments and research or in the use of internet for on-line registration and advisory services is now a common occurrence in our educational system, especially at the tertiary level of education (Aluede, 2011). There is the urgent need for all the curricular of library schools to be revised to incorporate ICT. It is expected that this task of change will not be an easy one as many staff and decision makers are sometimes reluctant to embrace change in curricula and pedagogical approaches. In fact, Nigeria needs a goal-oriented policy as well as well-thought-out plans and strategies to harness the potential of ICTS for national development. A way forward a mandatory training programmes on ICT competencies and proficiencies, and to based promotion of academic staff not only on publications but in additional certication in mandatory training in ICT in classroom teaching/learning processes in Library schools. From the school programmes studied by the researchers, it was observed that most library schools are yet to introduce ICT related courses in their programs. In the few library schools that they are available, it was observed that most of the lecturers are not ICT compliant hence, their inability to effectively teach ICT related course. The following recommendations therefore, will help to enforce complete compliance to the introduction of ICT related courses in library schools. The Librarians Registration Council with its mandate to regulate library education standard should as a matter of urgency enforce the introduction of ICT related courses in library schools throughout the federation. The National University Commission on its part should direct universities that offer library education to train and retrain their lecturers in the library school so as to be able to effectively impact the ICT knowledge to the students. ICT knowledge should be one of the qualifications required before one is employed as a lecturer in library schools.

Conclusions/Recommendations

The prospect of academic library is to teach distance education students how to use these devices to access information from the library; incorporate the use of these tools in information literacy classes. Academic library should offer e-book content that users can download and read on standard computers and academic libraries should adjust and adopt innovations in the modus they operate by adopting these technologies as part of the tools for its services.

Libraries should seek lecturers in their campuses who are developing or using innovative tools such as those described in this write up and begins to experiment with them in partnership with other lecturers and students. Librarians must encourage their users through content (learning) or other means; student development of applications that make academic library content and services more useful for specific groups of users.

Academic libraries should explore the possibility of providing mobile library services while liaising with mobile phone operators with improved transmitting frequency to avoid network failure at reduced tariff. Information desk (Infoseek) should
be provided in the library with a staff and internet/internet connectivity within the library.

References:


