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### Library and ICT Resources Provision for Quality Distance Learning of Library and Information Science (LIS) Students in Nigerian Universities

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#### **Abstract**

*This paper highlights the importance of the provision of Library and ICT resources for quality distance learning of Library and Information Science (LIS) students in Nigerian Universities. It aims at surveying the types of library resources available in the 21<sup>st</sup> century world society to support distance learning. The paper discusses other issues as library websites as distance learning service points; on-line reference sources available for distance learning and skills needed by distance LIS students; resources availability and the teaching of same in LIS schools. Also, this paper aims to review the concepts, history and paradigm shifts of distance education in the digital era with particular reference to library and information science discipline, required ICT skills by both LIS teachers and students, some challenges are identified and recommendations on the way forward in accordance to best practices are made.*

**Keywords:** *Library resources, ICT resources, Distance learning, LIS schools, Distance learning in Nigeria, E-resources*

#### **1.1 Introduction**

Distance education is the education received from the learner's home or place of work without necessarily having direct or physical contacts with the teacher (Mabawonku 2003). It often necessarily involves the use of technology to interact between the learner and the teacher. This mode of education has been developing and moving very fast globally from correspondence education to online or web based delivery of education. In the 21<sup>st</sup> century the scope of conventional distance education has been broadened by the Internet and World Wide Web to anywhere, anytime

and anyplace (Sacchanand 2002, Hundu, Tuamssen and Dabis 2013). A plethora of new types of educational technologies, or information and communications technologies (ICTs) are emerging rapidly which are integrated to allow flexible learning, increased potential for interaction and access to a very wide learner community there by making learning to be learner-centred, a lifelong process and a means to cope with continuous and or radical changes.

The challenge of ever increasing demand for educational opportunities without a commensurate increase in space in higher institutions occasioned by the rapidly increasing population, whereas the facilities

are not expanding have led many higher institutions in Nigeria and indeed sub-Saharan African countries to resort to Distance learning programmes as the most veritable vehicle of bridging the shortfall (FRN 2004; ADEA 2002). This is especially so in the face of rapid technological change. In other words, distance education is one of the responses to increasing social demands for higher education in contemporary societies. The most important distinguishing characteristic is its outreach capacity, which makes it adaptable to a variety of situations in which the learner is physically, temporarily and spatially separated from the teacher. That is why distance education is often described as anytime, anywhere, learning (Obanya 2004).

Through distance learning opportunities, access to higher education is provided with no boundaries to space and time. It has widened its scope to include on-line education, on-line courses, virtual courses, virtual and electronic library access and utilization, making learning to become more self-directed, more collaborative, and more intertwined with personal life and work, more resource based and calls for perpetual access and usage of information and learning resources, (Hundu, Tuamsen and Dabis 2013). The term 'distance learning' as a concept emerged from the idea of 'distance education' which in turn came from 'correspondence education', and the idea equally arose from 'non-formal education', so, there is no crisis of terminology. It is a process whereby an individual or institution packages information in a learnable way with a view to helping another individual or group to learn at a distance. It employs available media, methods and techniques to enable learners access needed information at a distance, and in spite of the distance.

It is against this backdrop that this paper aims to review the concepts, history and paradigm shifts of distance education in

the digital era with particular reference to library and information science discipline, required ICT skills by both LIS teachers and students. The essence of the review is to identify some challenges and recommend the way in the way forward in accordance to best practices.

## **2.1 Review of Related Literature**

### **2.2 Library Resources for Distance Learning**

The 21<sup>st</sup> century witnesses the broadening of the spectrum of library resources and services from the traditional to the electronic and to virtual library resources. New technologies and techniques engendered by information and communication revolution now allow for producing and servicing of knowledge and impacting of skill. The positive impact of technology, when carefully selected and adequately utilized on process of acquiring knowledge and skill has been established (Adesanya and Idogwu 2015). Both distance education and E-learning are intertwined; e-learning is an electronic mode of knowledge sharing and transmission which may not necessarily involve physical contact between teacher and student. Damilola (2015) opines that the concept, computer aided teaching and computer aided learning have given birth to computer aided instruction which represents combination of both teaching and learning. Access to instruction through the Internet is flexible, ensure broad viability and availability of educational opportunities and can be assessed irrespective of time and space. The globalization of distance education provides many benefits for developing countries for the realization of their educational goals as at when stated (Damlola 2015).

Provision of electronic resources in universities libraries, cyber cafes, homes and

technology centres in the universities is very crucial in that it provides access to vast amount of information which students need to achieve their academic goals (Akande 2011). Many authors compare electronic and print resources and opine that recalling information from electronic information sources are often faster than consulting print sources. The electronic information resources entail sets of instructional materials such as audio and video cassettes, CD-ROM, television and radio broadcast' as well as multimedia components such as computer and satellites (Damlola 2013). Idowu (2014) noted that digital resources are data and program file which store information. That is, they are files that can only be accessed by a computer. The files are generally kept as diskettes, flash drives, CD-ROM discs or "Internet resources. Among the new Information Communication Technologies (ICTs) access to the Internet seems to be the most sought after component of these technologies and it has remained a subject of considerable library attention. Continuing, Idowu (2014) opines that the installation of Internet in the library has revolutionized library practices and services. Traditional library settings are changing rapidly from libraries within enclosed structures to virtual, sophisticated entities that make various resources accessible to users who are not visible physically to librarians and information specialists who provide these resources via computer and other various ICT tools e.g.; TV, radio, television, cell phone, GSM, handsets etc.

### **2.3 Electronic Information Resources required in the Library**

Normally, the library acquires a range of information resources which includes: Books, serials, manuscripts, cartographic materials, sound recordings, motion pictures, video recording,

microforms, digital materials and electronic resources. Library resources however are not necessarily limited to the above listed resources. Electronic resources are the resources of electronic libraries. An electronic library (e-library) is a convergence of digital or electronic information resources and services provided in an organized form to meet the information needs of users through a network to facilitate remote accessibility. The term has always been used synonymously with the term "digital library" "universal library", "future library" virtual library" and "library without walls" (Issa et al 2013). Electronic library has also been defined as a "computer based information system for acquiring, storing, organizing, searching, distributing and displaying digital materials for end of access, designed and constructed as to be capable of attaching or being attached to a network" (Mishra and Srivantava 2008 cited in Issa et al 2013).

Loslade and Armstrong (2001), Lin (2001), Kinengyere (2007) and Idowu (2014) identified e-resources to include and not limited to online indexes, electronic books and texts, electronic journals, electronic catalogues, reference sources, sound recordings, and image databases (maps, art, medical, graphics etc), but Ojo and Akande (2005) regretted that the collection, processing and usage of all these resources pose different problems and challenges to practicing librarians in Nigeria. For example e-resources can only be accessed via computers or other electronic devices (laptop, i-pad, i-phone, smart phone etc). Electricity and network infrastructures play a vital role in enabling effective use of these devices. And computer literacy is also desirable for optimal usage. But on the other hand, in the case of a book that has been acquired by the library, it can be processed, labeled, read by users and shelved, with permanent ownership

established. It is not the same with electronic resources.

Electronic resources form the major part of information services of libraries to distance learners. Hundu, Tuamsen and Dabis (2013) opine that the common types of services offered to distance education students in the present era are almost electronic. Also in a study Raraigh-Hoper (2010) found that the most common library services offered to distance learners include “remote access to online library catalogue, electronic databases; electronic books and journals, on-line information literacy tutorial; electronic research guides on academic and special interest topics, electronic general library guides; Ask-A-librarian (chat, e-mail, or telephone); interlibrary loan; electronic reserves; and document delivery services”

#### **2.4 Library and Information Science Education in Nigeria**

Undoubtedly, the first library school established in Nigeria was at the University College Ibadan in 1959. Since then several other universities, polytechnics and colleges of education in Nigeria offer Library and Information Science courses, some of them through distance education. These courses vary from certificate to degree level. Igwe (2005) and Idowu (2013) reported that in 2014, there were about twenty nine (29) library schools within the universities, out of which twenty five (25) have been accredited by the Librarians Registration Council of Nigeria (LRCN). However, Aina, (2014) in a paper presented at the 8<sup>th</sup> Olanlokun lecture stated that there are over fifty (50) library schools in Nigeria, taking into cognizance the library schools of polytechnics, colleges of Education and other institutions (Idowu 2014). What this means is that library and information science education in Nigeria has come a long way since 1959. Also, several changes have been witnessed both in the

library profession, and in the society at large (Igwe 2005). Library and information science education across the globe have witnessed significant changes occasioned by the technological and other sundry developments in the social milieu. Consequently, Library and Information Science curricula have had to change significantly to mirror what is now being offered to train librarians and information professionals. It now embodies new knowledge and skills required to become a qualified personnel in the field, and also equip the new entrant into the profession to meet challenges brought by the ever changing information society (Chu 2008).

The relevance and viability of library and information science education in Nigeria requires looking at both the access to and quality in new ways to enhancing the quality of products turned out from the universities into the labour market. The quality of faculty and students therefore determines in great measure, the survival of library and information science education in Nigeria. An extensive array of electronic resources including databases, electronic books, electronic journals, and computer cyber literacy skills for both student and teacher, are required for effective Library and Information Science distance education in Nigeria.

Distance Learning programs open the door for libraries to exploit the electronic age through the use of electronic resources that draw students and faculty into the electronic library. Distance students required virtual services and remote instruction (Heller-Ross 1999). The students need the same services and library collection resources as provided to the on-campus students. Distance Education LIS students may use nearby public and academic libraries, but often, these students will be coping with a technology based medium to access materials and to

receive services of libraries. Such library services include reference assistance, information network connections, course materials, and inter-library loans.

Students with adequate access to the Internet can use these services remotely. Even better, these services can be provided asynchronously to the distance learning LIS students. While real-time service is sometimes necessary, e-mail and web-based forms can provide Library and Information Science students with the ability to order materials, request help, and expect a reply without remaining online.

What this means is that the distance education library and information science students and their teachers need a lot of ICT skills to perform creditably. That is why Idowu (2014) reports that the opinion of Aina (2014) is that the National Universities Commission's (NUC's) benchmark for curriculum in this field, is outdated and "malnourished". According to this author, amongst the various courses recommended for teaching, it is unbelievable that only one is on ICT. She further reported that, information available from the department of library and Information Science university of Ilorin reveals that six (6) extra ICT courses were introduced to prevent this lacuna which would definitely affect skills acquisition by the students under training. Distance learners need on campus resources.

## **2.5 Need for Library and Information Services for Distance Learning**

The library is a focal point of teaching, and use of ICT resources is a focal point of distance education. Use of the library and other arrangements such as ICT compliance are important for the effectiveness of instructional process in distance education. Distance learning students need to use on-campus learning facilities including library services. Library

professionals and academicians alike agree that distance students are eligible for library services that equal those of the campus-based students. This is evident from the fact that the guidelines provided by various organizations have specifically pointed out this equity issue. For example, the Association of College and Research Libraries (2004) guideline specifies that "access to adequate library services and resources is essential for the attainment of superior academic skills in post-secondary education, regardless of where students, faculty and programme are located. Members of the distance learning community are entitled to library services and resources equivalent to those provided for students and faculty in traditional campus settings". On the Nigerian scene, in order to ensure that standards are maintained the National Universities Commission (NUC) took the precaution to establish yardsticks and criteria for accrediting outreach programmes of tertiary institutions. One of the yardsticks was that; any university that hopes to mount distance education programmes must duplicate itself in wherever locations it plans to situate such programmes (Iwuji 2004). This is especially with reference to provision of library services.

## **3.1 Historical Antecedents of Distance Education in Nigeria**

Akpam (2001) reports that the NUC was quick to remind Nigerians that "Decree No 16 of 1985 empowers the National Universities Commission to set minimum academic standards and accredit all degree and other courses taught in Nigerian Universities". In its letter of June 21 1991 to Vice-Chancellors as directed by the National Council of Education (NCE), the NUC recognized that "satellite campuses, and/or study centres (henceforth called "outreach centres") are avenues through which existing universities may extend the delivery of their

academic programme beyond the confines of the location(s) approved by Government for them at inception ...". Satellite campuses were banned and in the memo to Vice-Chancellors referred to above the first four of the six items in what Munzali Jibril (minister) called the Short Medium Term Distance Education Strategy read as follows:

- (i) Universities will be permitted to set up five study centres away from their main campuses;
- (ii) No centre should be located more than 200 kilometers from the main campus of the Universities
- (iii) No centre should be set up by another university in a town or city that already has one or more universities except by the universities which are already located in the town or city.
- (iv) All teaching in the study centres will only be carried out by the regular, full time academic staff of the universities which run the centres and the curricular taught must be those of approved academic programmes of the universities.

Towards the end of the year 2000, the NUC announced the closure of unapproved Distance Learning Programme. It further announced that for avoidance of doubt the following universities were the only ones with NUC approval to run Distance Learning Programmes in Nigeria: National Open University of Nigeria; University of Ibadan and University of Lagos. Only the University of Ibadan among the approved universities offers LIS courses in its Distance Learning programme. And the University of Ibadan operates satellite campuses or study centres at Akure, Abeokuta and in Lagos. Other universities also operated to await accreditation and approval.

### 3.2 The New Paradigm of Resources for Distance Learning

As mentioned above, the new paradigm of resources for distance learning are e-resources. Basically, anywhere and anytime that two computers can connect, electronic documents can be made available. Such documents include e-books, e-journals, library catalogue, maps indexes, abstracts, encyclopedia, dictionaries, yearbooks, hand books, multimedia files and other reference sources (Issa et al 2013). What makes the availability of these documents possible is the ubiquitous World Wide Web, with the technology of which, library documents can be viewed and printed by any person who has a web connected computer. Distance is - always not a factor.

There are basically two types of e-resources. The born-digital and the digitized resources. The former are e-resources that are originally created in electronic or digital formats such as e-books and e-journals in PDF format as well as multimedia files. The later on the other hand are mostly printed resources on objects that are converted to digital or electronic resources through the use of dedicated optical scanners such as flatbed scanner, document or rotary scanner, 3D scanner, hand held scanner and book or planetary scanner accompanied with OCR (Optical Character Recognition) software (Issa et al 2013).

Again, e-mail makes it easy to contact anybody at anytime anywhere in the world in few seconds. According to Gopakumar and Borado (2015), the web opens new windows of opportunity to provide information support to distance learners. Also, Neimi, Ehrad, and Neeley (1998) remark that 'what distance learners expect of library is the ability to search periodical indexes, abstracts, CD-ROM, and bibliographic services such as ERIC, do electronic book check outs and renewals over the telephone (toll free);

deliver photocopies, the results of literature searches; internally track and deliver all inter library loan services; and establish an electronic feedback system'.

### 3.3 Library Services offered to Distance Learners

Many other library services can be offered over the web to distance learners. These include the followings:

1. *Library Website as a Service Point:* A university website can contain websites of its library and its faculty, with a home page that is the starting point and which provide the users with key information required to locate resources within the site. Various services can be offered to LIS distance students through the home page of the library (Ella 2006); (Gopukumar and Barado 2015).

2. *Online Public Access Catalogue (OPAC):* The electronic version of a library's catalogue is called Online Public Access Catalogue (OPAC). A web based OPAC allows distance learners to browse the catalogue/using search options such as author, title, subject et cetera.. This helps the student to determine the availability of an item in the library. The library can also provide links to the OPACs of other libraries, including those with consortia relationship to LIS distance students through the home page of the library Ergart(2002).

3. *Document Delivery:* A student can place request for Document Delivery Service after browsing the OPAC of his own or any other academic library. When the library processes the request, it can send the same through post, e-mail etc depending on the magnitude of the package to be delivered. That is, if the student requests an electronic document, the library can send it by e-mail subject to

copyright stipulations. The statues in Nigeria are not at all clear in the case of copyright and the legislature has not updated the statutes in place with the advancement of technology.

4. *Access to E-Journals:* Gopukumar and Baradol (2015) opine that, any journal that is available over the Internet can be called an e-journal. Print equivalents may or may not be available simultaneously. Some electronic journals are freely available, while others have charging mechanisms of different types. Some individuals and organizations serve as aggregators of e-journals. These people provide access to the full text content for authorized users. Usually, they are IP-authenticated i.e. they are made available only to computers with the specified IP numbers for which subscription is made. The publishers issue some directly. The publishers of Emerald ([www.iournalsonline.tanf.co.uk](http://www.iournalsonline.tanf.co.uk)) cover e-journals in LIS. E- journals can be made available to the distance students in Nigerian universities. They should be provided with user name and password to ensure that only authorized people use the information (Johnston and McCormack 1996).

5. *On-line Reference Sources:* As the Indian researchers Singh (2003), Satija (1993) and Gopukumar and Barado (2015) pointed out, major reference sources are now available online. Encyclopedia Britannica ([www.eb.com](http://www.eb.com)) and Oxford Dictionary ([www.oxforddictionary.com](http://www.oxforddictionary.com)) are examples worth mentioning. The library website should also act as a knowledge portal. Links to various websites giving information on specific areas can be accumulated and provided on the website. This will help the student as a single point for browsing.

#### **4.1 Skills Needed by Teachers of LIS Distance Learners**

Idowu (2014) is of the opinion that the following skills must be acquired by all teachers or instructors in our library schools; in Nigeria: Sound ICT background, Software and hardware knowledge, Knowledge of computer, Internet, Intranet and extranet. Idowu (2014) also observed the following needs of the library schools in Nigeria:-

- i. The library schools need to provide more facilities so as to improve on the existing ones.
- ii. Interaction needs to be improved among IT users; teachers and students alike, e.g. assignments could be submitted online and returned to students online as well.
- iii. The curricula of our library schools (in Nigeria) need to be updated
- iv. There must be a new study (in recent years) that would update our knowledge on availability, use and interaction with ITs in the over fifty (50) Library Schools in Nigeria.

Training that will enable librarians to function only in the traditional mode needs to be jettisoned for more up to date training, which encompasses the following: Excursions to libraries in advanced countries of the world e.g. the Library of Congress in Washington DC, USA; internship postings to a predominantly IT environment; submission of an IT solution project that would solve some problems in the library; PowerPoint presentation by each student before graduation, especially the postgraduate students. Although some of these observed needs will benefit regular students more in these LIS schools, a good number of them are relevant to both regular and distance LIS students.

#### **4.2 Skills Needed by Distance LIS Students**

The distance LIS students are expected to learn the following skills ahead of the skills to be taught by their teachers: Basic computer Operation skills, General command skills, Housekeeping skills, Writing and word processing skills, Presentation skills, E-learning and M-learning skills.

#### **4.3 Constraints of ICT Resources & their Teaching in Nigerian LIS Schools**

1. *Lack of ICT infrastructures:* The library schools in Nigeria apart from their apparent low level digital course contents which is the bane of their curricular generally, most of them have not been able to create ICT laboratories that are adequately furnished to permit practical demonstrations of e-learning, m-learning, Teleconferencing, Skype and interactive learning, plus linkages with other library schools elsewhere in the world.
2. *Over-Enrolment:* LIS students need to acquire the skills and expertise to perform the new roles of information management and control in libraries that have become necessary due to the advent of e-resources. They need to have these skills before leaving school. But this is a tall dream presently considering the fact that most of the library schools are so over populated with students that available facilities are stretched.
3. *Personnel, Work Load and Expertise:* The rapid changes that are taking place in the area of ICT application to library services one would have expected that staff on ground in all the Library and Information Science schools, should avail themselves of various training opportunities such as short term courses in the area of ICT application to library



services; traveling abroad under the TETFund arrangement to acquire such skills, but this is not always the case. Staff sent overseas for training, according to Ikoja (2006) either do not return to their posts or are taken up by other organizations that are able to offer them higher remuneration; thereby leading to the problem of brain drain. This state of affairs encourages some of the library schools who do not have the full complement of teaching staff to resort to hiring part-time lecturers whose commitment and devotion to duty may not be guaranteed.

Besides, there is the need for technical support staff with high level expertise in the maintenance aspects of ICTs. Such staff with technical skills to diagnose system problems and swap parts are lacking in many of these schools. And many out of commissioned machines which could easily be reactivated and used are left to languish as a result of poor maintenance.

4. *Inadequate Funding:* Of all the problems facing Library and Information Science schools in Nigeria funding inadequacies are the roots of them all. Apart from the cost of hardware resources which are high, the cost of acquiring and securing ownership of electronic resources and payment for subscription is very high. And so is the cost of Internet connectivity which is very prohibitive. The e-resources comprise free web-based, open access and fee based resources. These require to be acquired and their ownership of digital content secured through license. Electronic resources under subscription are stored on a remote sever hosted by the vendor and made accessible to a target community after authentication and authorization. The cost of all these are the concern of libraries and library and information

science schools alike. Minishi (2007) noted that library schools in Africa are constrained by poor funding.

### **Conclusion and Recommendations**

Presently, as can be gleaned from different literature searches, there is a gap between the competencies that Library and Information Science education provides to both regular and distance learning students, and those required in the job market. This points to the obvious fact that there are serious concerns for the curricula of library and information science to meet the expectations of the present digital society. This should be reinforced with appropriate ICT resources and infrastructure. The provision of ICT courses provided in some of the schools may be reasonably adequate in the provision of ICT resources but courses on the application of ICT as are obviously lacking.

Library schools' teachers need to improve on their IT skills and knowledge in the same way that practicing librarians should. Information and communications technology (ICT) resources are getting more and more complex. The paradigm shift to e-libraries makes it so. For example, the enabling technologies deployed in a virtual library are web-based technologies that include using Hypertext Markup Language (HTML) Extensible Markup Language (XML), and web scripting Language such as Java script. Virtual library services and digital resources are delivered over the Internet which depends on network operating systems running on web server computers. Library and Information Science school teachers in Nigeria should have skills such as the following: (a) understanding how to manage a virtual library for efficient services (b) knowing criteria for setting up a digital library resource and the right attitude to choice of database services including e-

books and journals, (c) Acquire adequate exposure to current database links and integration (d) Have knowledge of dominant databases and the vendors, (e) Knowing how to use appropriate tools for information dissemination, e.g.: Web 2.0 and some digital reference tools, e.g. 'Ask a librarian' (f) Know how to maximize the use of common databases e.g., EBSCO, AGORA, JSTOR Archives, HINARI and others at his disposal.

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