Creating a Virtual Library for Distance Learners in Nigeria

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Abstract: Information and communications technology revolution continues to propel dramatic transformations in all aspects of our society. This revolution and transformation is changing the face of libraries, their functions and services. These innovations are propelling the library into an environment of electronic services established on computer servers or a network of cooperating servers. Technology is giving great impetus to libraries and helping them redesign, redirect and remodel their functions and services. Libraries that have applied information technology in their services have experienced dramatic transformations. This paper discusses the emerging trends in library and information services which is the bedrock to the development of virtual libraries. The trend of virtual libraries as an excellent alternative to the provision of access to library resources to distance learners is examined. It also examines the components, requirements and challenges of a virtual library service in Nigeria and recommends a suitable model of virtual library to libraries serving distance learners in Nigeria.

Key words: virtual libraries, distance learning/learners, ICT

1. Introduction

Libraries of all types are making huge investments in information and communications technology (ICT). These investments lead to the deployment of modern tools that are made possible through ICT as Brindley, Walti & Zawacki-Richter (2008, p. 138) assert. These facilitate access to library and information resources to meet clientele needs. When ICT tools are effectively implemented in library and information services, the door of access to electronic and online library and information resources is widely opened. Ani (2013, p. 15) agrees that the application of ICT in library and information services facilitates the provision of timely information in the universities which lead to maximal benefit and increased research productivity. Foster et al. (2008) and Frankor and Akussah (2012) similarly conclude that if staff in universities in developing countries, especially in Africa have access to relevant electronic information resources, it is likely to improve the quality of their research and promote increase in research productivity and publication.

Consequently, a number of libraries in Africa are harnessing resources to accommodate the application of ICT in their day to day library activities. This application of the information superhighway or ICT into the society has introduced remarkable changes and innovations in every dimension of social and economic activities (Levin

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& Burke, 2003, p. 2, George & Frank, 2008, p. 141). Ogunsola (2011) also notes that libraries worldwide have witnessed a great metamorphosis in recent years both in their collection development and in their service structure. Mulla (2006) observes that over the years, this significant transformation has been noticed in collection development policies and practices of libraries. And Adebayo & Adekunjo (2013, p. 1) also add that this "dynamic process initiates fundamental changes in all aspects of our lives, including knowledge dissemination, social interaction, business practices, political engagements, media, education, health, leisure and entertainment. Adeniran (2014) sums it all that correct application of information and communication technology is drastically affecting all facets of the world system which includes the library institutions.

Specifically, ICTs have significantly affected the landscape of business, education, banking, communication, information services and many other aspects of the social life. This has also affected the way we work, live, and think. It is these changes and transformations that are permeating into libraries and causing revolutions in their roles and activities. Ani (2004, p. 1), Nkanu and Okon (2010, p. 2) agree that the present society is experiencing veritable transformations resulting in new information resources and formats and the emergence of electronic information, which is transforming library and information services.

These innovations are forming the bedrock for libraries' transition to environments of electronic services which are built on computer networks. Makhanya (2013, p. 4) affirms that libraries that have applied information technology in their services have experienced dramatic transformations. The University of South Africa is a living example of the great impetus technology gives to libraries. He writes that UNISA library is the largest library in Africa and one of the best equipped in terms of library and information resources and ICT. This application of technology in the UNISA library has helped to provide extremely reliable support to the university community and the development of new services in information dissemination. The successful application of ICT in the UNISA library has also impacted significantly on information storage, retrieval and dissemination. Technology helps libraries to redesign, redirect and remodel their functions and services. The successful application of ICT also transforms libraries from "guardians of tradition" to "catalysts of vast changes" as Gumbwa, Mamvoto and Mufanawenjingo (2007, p. 3) indicate and Gould and Gomez (2010, p. 167) also agree. It helps to remove the barriers that separate libraries from their users. The new technology has proved to be of great benefit to people in remote and isolated locations that lack direct access to information resources for research and learning. Ellis and Oldman (2005, p. 35), Thanuskodi (2012) and Ani (2013, p. 7) all agree that electronic resources enhance access to the needed information and that access can be done remotely by staff and students from offices or homes without physical visit to the library.

2. Library Services in Open and Distance Learning

Open and distance learning (ODL) is gradually being accepted in Nigeria as a viable alternative to conventional university education. This is providing opportunities for millions who are not privileged to go to conventional universities. This growth of distance learning programmes has tremendous implications for library services.The Association of College and Research Libraries (ACRL) developed the Guidelines for Distance Learning Library Services which state in part that "members of the distance learning community are entitled tolibrary services and resources equivalent to those provided for students and faculty in traditional campussettings". In other words, distance learners require the same library services like other students in the conventional environment. However, providing library services pose challenges which require new and novel

methods of library service delivery.

Distance learning most often creates geographical barriers where the learners are separated by distance and education and learning is taken to them. Similarly, library resources and services are delivered to the learners through several formats especially electronically. In other words, libraries get to the distance learners where ever they are. According to Barron (2002), libraries are in the business of helping students get information "they want, when they want it, and getting it to them regardless of where they are physically located". This brings to the fore the need for online public access catalogue (OPAC), the provision of remote access to e-journals and databases and online reference resources with remote reference assistance and web tutorials for information literacy.

Open and distance learning thrives on the deployment of appropriate technology and the supply of accurate, current and comprehensive information. The operation and growth of distance learning means that libraries must provide support to distant learners who mostly learn remotely and without access to campus library facilities. The virtual library is the most veritable platform to provide access to information resources for distant learners. Garten (2009, p. 1) observes that "distance learning without access to electronic information resources and services may be impossible." According to Adeyinka (2008, p. 7) virtual library services to remote users should be properly integrated. Rohland-Heinrich and Brian (2007, p. 8) Secker and Gwyneth (2007, pp. 39-41) and Wyss (2007, p. 749) support the notion that the virtual library is critical to users who learn remotely, therefore, a variety of virtual library tools and guides should be deployed for learners to take advantage of the virtual learning experience.In essence, the virtual library platform brings together e-resources and information services from different providers which makes it easy and quick for users to access.

The importance of quality library services for open and distance learning cannot therefore be over-emphasised as several authors have expounded. Monroe (1975, p. 62), Kascus and Aguilar (1988, p. 30), Cleyle (1992, p. 109), and Watson (2000, p. 4) and as quoted by Igwe (2015) all agree on the significance of quality library services in open and distance learning. Watson (2001, p. 175) adds that distance education has a number of inherently unique characteristics which fundamentally and procedurally impact on the provision of library and information services — regardless of the level of programme of the learners. This in other words is the central focus of the library service in distance learning i.e. the provision of library services to distance learners regardless of geographical boundaries.

Watson (2001, p. 176) further expands the features of library service in open and distance learning to include:

(1) Distance learners do not go to their institution of instruction; their education "goes to them". They are often termed "invisible" students. Reaching distant learners with library services creates a new context of service to users who do not have the option of attending conventional universities. It opens up a canvas on which new methods of user-centred information services are developed most often leading to the evolution of the electronic, digital or virtual library.

(2) Distance educators are sometimes themselves at a distance from the educational institution.

(3) Client invisibility is a paradigm shift in librarianship as traditional librarianship comprises a high degree of direct and frequent client-librarian, client-library interaction.

(4) Traditional library services are building-bound. In distance librarianship, library and information services have to be "taken" to the members of the distance education community, leading to the "library without walls" or "virtual library" concept.

(5) Distance librarianship requires that technology and other means of communication are deployed to overcome the "tyranny of distance".

(6) Distance learners need to access library services at their convenience e.g. late at night, early in the morning, during weekends and holidays. Consequently, traditional library hours (9:00 a.m. to 9:00 p.m.) are inconvenient for distance learners.

Obviously, methods of information service delivery in traditional educational setting and open and distance learning environments are not exactly the same. In the conventional tertiary institutions, students are most often confined to the campus and they physically visit the library for a range of library and information services to facilitate their learning programmes. This is not the same case with open and distance learners. It is essential to plan, develop and implement strategies to ensure that quality library and information services are accessible to learners at a distance whether in offline or online mode.

Kascus states that librarians have very important roles to play to support distance learners have access to the resources required by the curriculum and Holowachuk adds that having access to adequate library resources is key to the success of distance learners. Libraries serving distance learners place emphasis on remote access to electronic resources as Albanese (2001) argues that distance learning libraries must make their library resources available online.

3. Creating a Virtual Library in National Open University of Nigeria

Libraries in developing countries are slowly and reluctantly migrating to virtual environment. The virtual world is gradually dominating the information profession and practices in a number of libraries in developing economies. This is also receiving great attention in conferences, academic discourses and in the literature of library and information science. This underscores the need for libraries and librarians in developing countries to accept these developments and also look to the future to prepare for the dynamic possibilities of the virtual world.

While several institutions and organisations have openly and enthusiastically embraced the innovations through ICT in all ramifications, others are still burying their heads in the sands like the ostrich and try to avoid the changes and developments in our time. In spite of the advances in ICT library service delivery is often still based on conventional practices especially in developing countries like Nigeria. This is asserted by Adewale (2003, p. 35), Gbaje (2007, p. 2), Fabunmi (2009, p. 2), Nkanu and Okon (2010, p. 2), Eke (2011, p. 2) that many academic libraries in Nigeria share the same characteristics of still dwelling only on conventional patterns of library service of the 19th and 20th centuries. These libraries have little or nothing in terms of the application of new information technologies in their services. Although so much has been said and written on digital or virtual libraries in Nigeria, the position of libraries, particularly university libraries, has not changed significantly from conventional practices. Unfortunately, these conventional library practices cannot help distance learners who are geographically separated from their institutions.

Although the National Open University of Nigeria was resuscitated in 2002, academic activities started in 2003. Students were admitted without adequate preparations for library and information services. In fact, significant plans for library services only began in 2007. Incidentally, the library began at the headquarters in Lagos with traditional library practice. This restricted the access to available library materials because only a very insignificant number of the students could access the resources and services. The planning for library services was constrained by several factors which include:

(1) Lack of qualified staff for open and distance learning and digital library environments. Usually staff are recruited from the other traditional universities. These staff members do not have any form of training in the

principles and practices of electronic libraries and no form of exposure to the concept of open and distance learning. This was a major setback in the take-off library services. Library services were planned and organized in the conventional way and this posed great limitations in reaching learners with information services.

(2) Poor information and communications technology infrastructure is another major constraint. The young university had very poor ICT facilities both in the headquarters and at the centres. One of the cardinal points of the Abuja Declaration of the 2001-10 Decade of Distance Education was the development of ICT-driven distance education delivery system. This was not to become a reality in the operations of the re-established National Open University of Nigeria. Consequently, the operations of academic activities particularly library services were greatly retarded and retrogressive.

(3) Closely related to this is the lingering problem of electricity supply in Nigeria. Technology cannot operate without adequate power supply. This has remained a knotty issue in the entire economy of Nigeria. Ministries and agencies have to strive for alternative sources of power supply – relying on the costly venture of running generators. This also means that funds are vigorously competed for in providing essential services. In this kind of situation, the library was among the services relegated to the background or poorly provided for.

(4) There is also the problem of poor Internet facilities and high cost of bandwidth. It is obvious that effective performance and functionality of programmes depended heavily on functional Internet facilities and adequate bandwidth. There were poor local area networks, poor understanding of the direction the university should adopt in the provision of Internet services, high cost of bandwidth and poor and most times unavailable Internet services. Virtually all the study centres had no form of Internet service. Every operation was manually carried out which stagnated the university for half a decade.

(5) Administrative miscalculation was another major issue that affected every department including the library. The university started with over one hundred programmes without course materials, no library services and with a handful of academic staff. There was poor consultation and coordination with the supervisory agency for tertiary education in Nigeria. Several study centres were established without facilities, staff, or adequate accommodation. Presently, so many of the study centres are still occupying very poor and grossly inadequate rented accommodation that has no provision for any form of library services.

(6) Inadequate funding prevented the library and information services from making any progress. In view of this, the planning, organization and implementation of library services centred significantly on the traditional library operation that has not been functional and beneficial. The learners are at the various centres and the library (if what is available can be called a library) is at the headquarters where students do not have access to the services. There is need to develop a model of library services for the National Open University of Nigeria to make them relevant to the needs of their users. There is need to bridge the information gap to provide effective access to information for the distant learners. Contemporary library services have shifted their focus from buildings to remote access to information. The virtual library provides an opportunity for users from the National Open University of Nigeria to be reached with the necessary library services.

4. Components of the Virtual Library

The concept of the virtual library connotes a range of activities from the simple to very complex application of information and communication technologies in library and information services. Therefore, developing a virtual library requires the integration of several components. Magnussen (2002, p. 11), observes that a virtual

library must also have clients who are linked to the "collections in an efficient and satisfying manner, a set of services which could be human or electronic, which connects clients to the collections, the technology which should support document creation, retrieval, transfer, dissemination, manipulation and management." Various authors have different views of what constitutes the components of a virtual library. Murray (1999, p. 175), Van (1999, p. 301) agree that the components of the virtual library include among others:

- Electronic document delivery, authentication and security.
- Library automation (integration of the digital library with traditional library systems).
- integration of Web-based network services into the digital library;
- Digitisation and on-demand scanning.
- Electronic publishing.

The major components of a virtual library can be categorised into six major areas. This includes:

- Collection infrastructure
- Digital knowledge organisation
- Access infrastructure: browse, search and navigation interfaces of digital library
- Network and computing infrastructure
- Intellectual property rights and digital rights management
- Digital library services.

Similarly, Schiller and Wahlde (1992, p. 3) and Schiller (1992) listed some of the essential elements of the virtual library. These include:

- The development of electronic document delivery services.
- The development of a local area network (LAN).
- The provision of a gateway from the OPAC to other databases or networks, such as the Internet.
- Provision of access to the Internet.
- Subscription to electronic journals.
- Digitisation of text for easy storage, retrieval and dissemination.
- Information literacy for faculty and students in the use of internet. sources and end-user searching.

These categorisations of the components of a virtual library could be summarised into seven different elements: computers and computer networks; digitisation of materials; access to Internet and e-resources; LAN/WAN; information literacy and electronic publications.

5. Recommended Model of Virtual library

The recommended model of virtual library in NOUN library comprises of content consisting of databases, and other e-resources to which subscription is paid; user-centred organisation which facilitates access to library resources as carter (2013, p.1) notes and Besser (2004, p. 5) adds that it should be interoperable and based on clients' needs and support easy search and retrieval of documents; services such as real-time chat or digital reference in an interactive environment that allows for flexibility and easy adaptation to new user demands; technology that provides the processing power to drive the virtual library; access to electronic publications for access to e-journals, conference papers, dissertations or e-books; the librarians with specialised skills to run the operations of the virtual library; information literacy programme to help users develop the skills to locate, evaluate and use information effectively in a complex ICT environment; and access to the Internet which is a

major transforming force in every library service.

5.1 Challenges

Creating a functional virtual library is a formidable task for libraries and librarians. This will affect the mission of the library, budget and funding of library services and the development of new operational strategies.

5.2 Digital Divide

Digital technologies are still far from being "simple" and "easy to use" for many people especially in developing countries. The use of computers still evokes fear in so many people. The level of computer literacy skills is still low. Significant traces of cyberphobia or technophobia still exist in rural and urban areas in Nigeria and some other African countries. Acquiring the motivation to use a computer and to achieve an Internet connection is the first step to accessing digital technologies. Dijk (2008) notes that many of those who remain at the "wrong" side of the digital divide have motivational problems. It appears that there are not only "have-nots", but also "want-nots". The idea of a virtual library implies that the clients must be literate in the use of information and communications technology. According to Smith (2013, p. 1), the "digital divide refers to the gap between those who can benefit from digital technology and those who cannot."

5.3 High Costs of Broadband Internet

The success of the virtual library depends to a very large extent on the availability of a good broadband Internet access. The cost of broadband Internet access is still not easily affordable in Nigeria. According to Awosanya (2013, p. 1) this prevailing high cost of broadband Internet access is the result of the "unwelcoming attitude of the government at all levels" and the telecommunication operators building network infrastructure individually.

5.4 Poverty and Poor Telecommunication Facilities

Developing telecommunications facilities in the face of low standard of living, poor health facilities, hunger, dilapidated educational facilities and social and political instability remains a major challenge for several countries. Institutions and organisations must grapple with these challenges in developing and implementing virtual libraries. Mestri, Praveenkumar and Paramesthwar (2008, p. 472) agree that "for the development of virtual libraries, there is need to develop the standard of living" and improve telecommunications facilities for the people.

6. Conclusion

Change and development have become characteristics of life and society. Technology, particularly information and communications technology have propelled major transformations in education. Distance learning is a veritable solution to the problem of access to higher education and effective access to learning resources through the virtual library platform is indispensable.

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