

## **Challenges and Prospects of Virtual Libraries in Universities in Nigeria**

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### **Abstract**

The challenges and the prospects of virtual library in a university system constitute the focus of this paper. Most university libraries in Nigeria are in deplorable conditions due to inadequate funding. This manifests in libraries having few current books, journals, and other reading resources; staff shortages; deterioration of facilities; inadequate equipment and even library buildings. Such situations are not conducive environment for reading. The virtual library project has the capability of resolving this problem. In this period of information explosion, there is the need for university libraries in Nigeria to use appropriate technology to access the world information in order to enable Universities carry out their traditional functions of teaching, research and public service effectively and efficiently.

### **Introduction**

Virtual library is being introduced to the library system worldwide. The industrialized world is creating virtual libraries because of the high value placed on the availability of information. The increasing acceptance of virtual library might be due to the diverse information that they contain, the options for what they can include are virtually endless, as well as becoming more and more boundless as technology advances.

University libraries in Nigeria are virtually non-existent in both rural and urban marginal areas. Where they exist, the orientation is narrow and book – centered on outdated and inadequate collections with services undermined by poor funding, obsolete and inadequate collections (Atinmo, 2006). The roles of university libraries as sources of learning, education, innovation and research, tools for social development, and as means of communication have become seriously eroded. It was suggested that for university libraries to cater effectively for the social, cultural and developmental needs of library users in Nigeria, virtual library has to be put in place.

With virtual library, the quality of academic library collections will be bolstered up, staff and students will be able to access databases for teaching and research. Also, accessibility to recent publications will be enhanced. Okebukola (2002) is of the view that virtual library would improve the quality of teaching and research in higher institutions through the provision of current e-books, journal and other library resources. This will enhance scholarship, research and lifelong learning through the establishment of permanent access to shared virtual archival collections; provide guidance to academic libraries on ways of applying appropriate technologies for the production of virtual library resources and to advance the use and usability of globally distributed networks of library resources. Ya'u (2003) asserts that the virtual library has an opportunity to address the paucity of teaching and research materials in the libraries of higher institutions in Nigeria as well as giving room for sharing of research outputs with the global community amongst the institutions and the local researchers.

University libraries fail to meet the needs of academics because of inadequate funds, failure to anticipate future needs and to keep pace with technology. University libraries have many instances of marginalization in the academic community and are not seen as a center of learning to be enhanced and expanded. Other factors that equally contributed to the deplorable state of university libraries in Nigeria include teaching methods that center on classroom learning rather than independent research, a breakdown of physical facilities, failure to keep pace with expanding enrollment, inadequate collections, poor communications between librarians and their users, between librarians and university administrators and among librarians nationally and internationally and lack of management strategies.

Most university libraries are in deplorable conditions due to inadequate funding (Ogunsola and Okusaga, 2006). This made the libraries to have few current books, journals, and other reading resources. Many libraries have no e-mail, fax, telephone and computer based services. The inability of the Nigeria government to stock libraries with relevant books and journals particularly in the academic institutions has a great implication for learning, teaching, research and development. This has led to conscientious efforts made on the part of the Nigerian government to come up with virtual library initiatives and other relevant information and communication technology policies to provide higher institutions access to relevant and current information resources.

The inability of the university libraries to provide much needed supportive services of providing very current information for learning and research has been of much concern to the Nigerian government (NLA Newsletter, 2002). This has made the Federal government in collaboration with the Education Ministry to embark on the Virtual Library Project – an electronic library device in thirteen universities in Nigeria with the intent of empowering the students and overhauling institutional libraries. When students and scholars are able to access current texts and journals electronically, they will be current, more knowledgeable and better equipped to compete favourably with their counterparts anywhere in the world.

The industrialized world is creating virtual libraries because of the high value placed on the availability of information while the socio technical condition to sustain virtual libraries do not exist in most African countries in general and Nigeria in particular. The virtual library offers great promise as a way to develop a Nigerian information resource based. The infrastructure needed for the virtual library is not fully in place. Networks already exist in some Universities in Nigeria, but access to the internet is limited. Ways must be found to solve the technical, administrative, and political problems before the virtual library becomes an African reality.

The objectives of the national virtual library include: improving the quality of teaching and research institutions through the provision of current books, journal and other library resources; enhancing access of academic libraries to global library and information resources, enhancing scholarship and lifelong learning through the establishment of permanent access to shared digital archival collections; provision of guidance to academic libraries on ways of applying an appropriate technology for production of digital library resources; and to advance the use and usability of globally distributed networks library resources.

## **Conceptual Issues**

A library is an organized collection of items which may be in form of books, journals, videos, CD-ROM etc. along with the services required to make them available to a given user group or groups. It can also be referred to as a “place” to get information and to get help finding information. The “place” can be physical or virtual or a combination of both.

The virtual library can be referred to as a child of necessity arising from the need to use technologies in accessing the world information. There is a need to access information globally through the internet because we are now in the period of information explosion. In order for the universities in the world in general and Nigeria in particular to function effectively and efficiently, it is necessary to have a virtual library system.

The term virtual library has been defined by many different people in many different ways. According to Riccio (2001), it is a library in which the holdings are found in electronic stacks without any regard to a physical space or location. It is a technological way of bringing together the resources of various libraries and information services in one place, so that users can find what they need quickly and easily. A virtual library can consist of materials from a variety of separate libraries that are organized in a virtual space using computers and computer networks. Virtual library is a collection of machine readable documents made available through an Internet site. The library does not exist in real life. One of the best examples of a virtual library is the Networked Computer Science Technical Reports Library (NCSTRL)

Virtual library can then be taken to be a computerized library system which provides multiple accesses to the entire collections of a library by means of electronic media. Irokwe (2001) defines digital library as a library that harnesses digital technologies as infrastructure to search, collect, organize, store and distribute cultural, historical and scientific information whether it is text, visual images or sound. Gapen (1993) defines virtual library as the concept of remote access to the contents and services of library and other information resources, combining on-site collection of current and heavily used material in both print and electronic form with an electronic network which provides access to, and delivery from external worldwide library and commercial information and knowledge sources.

Bradley (1999) has identified the following characteristics of virtual libraries:

- They use the expertise of information professionals and subject experts in collecting and organizing web information resources
- Information is checked for authority
- Emphasis is on the content of an information source rather than its location, and
- The information is current and sometimes valued-added.

The following are some of the examples of virtual libraries [www virtual library \(http://www.vlib.org/\)](http://www.vlib.org/), the oldest catalogue of the web; BUBL link (<http://www.bubl.ac.uk/link>) etc.

Sherwell (1997) gives the following as the key characteristics of a true virtual library:

1. There is no corresponding physical collection.
2. Availability of documents in electronic formats.
3. Documents are not stored in any one location.
4. Accessibility of documents from any workstation.
5. Retrieval and deliverance of document as and when required.
6. Availability of effective searching and browsing facilities.

From the different definitions of virtual library, one can deduce that a virtual library is a selected organized collection of units of documentary resources spread everywhere, accessible always, where individuals and groups such as authors, publishers, and readers are linked across the global electronic network and relate in different ways to documents that are fast and easily obtainable and available in their full version in view of satisfying multiple cultural exigencies.

## **Challenges of Virtual Library in Nigeria**

Computerization as the world knows is an expensive but necessary project. The implementation of a virtual library implies that libraries will spend more money on computer hardware and software, licensing, training of librarians in new technologies especially in the area of texts selection, scanning, verification and indexing of the materials to be digitized as well as employment of experts with web technologies skills to support and manage them. Copyright holders have to be contacted and rights obtained. Money is needed to translate content into digital form and to access the resources. A powerful server is required, supported by specialised software and personnel. The server must operate all day, and new materials should constantly be added.

Building and sustaining a virtual library requires the proper technological infrastructure which includes telecommunication, servers, application platforms and software applications (Gbaje, 2007).

There is the need to have good telecommunication infrastructure in place for the implementation of a virtual library. Even though there is massive improvement in the telecommunication industry over the past few years, however, a lot still needs to be done to improve its present state. There is the problem of maintenance.

Web technology skills are needed to maintain web servers that host locally digitized materials and other digital resources hosted remotely as well as maintaining proxy access to restricted resources. Ashcroft and Watts (2004) observed that Nigeria has an acute shortage of digital systems librarians, information and web technology literate staff in libraries to install and manage technology networks. The erratic nature of electric power supply in Nigeria is a major problem. Virtual library cannot exist in this situation because web servers that host locally digitized contents and proxy server that provide authentication and remote access to subscribed electronic resources need to be on for twenty-four-hours a day. There should be no power outage.

Another challenge is the lack of purpose-built library buildings. Ifidon and Okoli (2002) observed that the first and second generation universities that are those established between 1948 and 1970; and 1971 and 1979 respectively have completed their library buildings while the situation of the third generation universities i.e. those established between 1980 and 1983 is very bad. Much provision was not initially made for information technological devices. But with the advent of information technology, renovation of the existing library buildings will need to be done to accommodate new trends, facilities and services. Again, distinct user interface of every product is another challenge; users therefore, need to remember different passwords for different products. The scope of coverage and available archives are often limited. At times, difficulties are encountered while downloading or printing, there is no cost savings, especially when both the virtual and print products are maintained. Everything is not available in digital format. There are restrictions, which vary from vendor to vendor, on how the product can be used. The virtual library relies on power and computer networks in order to be available for use. Users cannot spread everything in front of them and use it all at once. Users are most comfortable using books.

### **Prospects of Virtual Libraries in Nigeria**

There is a need to recommend that Nigeria should join the information super high way. The information in digital format is more space-saving and it is easier and cheaper to communicate via telephone over long distances. The need for a virtual library system has therefore become the most urgent necessity in universities in Nigeria. Okebukola (2002) is of the view that virtual library would improve the quality of teaching and research in higher institutions through the provision of current e-books, journal and other library resources. This will enhance scholarship, research and lifelong learning through the establishment of permanent access to shared virtual archival collections; provide guidance to academic libraries on ways of applying appropriate technologies for the production of virtual library resources and to advance the use and usability of globally distributed networks of library resources.

Ya'u (2003) asserts that the virtual library has an opportunity to address the paucity of teaching and research materials in the libraries of higher institutions in Nigeria as well as giving room for sharing of research outputs with the global community amongst the institutions and the local researchers. It is an enhanced access to National and International library and information resources for teaching, learning, research and pleasure via the digital technology thereby making Nigeria a true and active member of the global village polity. The uniqueness of the virtual library is that it is spaceless, since it requires the conversion of target library collections into electronic format and placed on the internet to be accessed by anybody anywhere. Duplication of efforts would be eliminated in that each participating institution will contribute its own unique content. With Virtual libraries, electronic books and journals are made accessible to an unlimited audience at the same time, anytime and anywhere and this implies that all library operations are automated.

Virtual libraries make electronic books and journals accessible to an unlimited audience at the same time, anytime and anywhere (Riccio, 2001). The virtual library provides access to databases, electronic journals, alerting services, online reference tools and quality-selected web resources that improves the quality of teaching and research. A virtual library is a strategy to booster learning and opens access to the electronic super highway in Nigerian schools. It is one of the best ways to provide an equitable education in a cost effective manner. There are many advantages of going virtual.

Some of the advantages include the following:

- Unlimited opening hours. Patrons can access it at anytime and in anywhere unlike the traditional/physical library whose accessibility is limited to the opening hours.
- Access to resources in the traditional library is limited shelf to search in physical locations while that of virtual library is unlimited to shelf and it is electronic.
- The search engine in traditional library is manual and tedious while that of virtual is electronic, easy and extensive.
- In the area of time, traditional library is time consuming whereas the virtual library saves time. It saves and/or reduces the physical space taken up by library materials.
- Seating space and shelf space is high in physical library while it is low in virtual library.
- Resource sharing is inconvenient and slow in traditional library, whereas it is convenient and fast in virtual library.
- Migration is limited in physical library while it is unlimited in virtual library. It often adds enhanced searching capabilities in a digital format.
- The library materials are available at the user's desktop, regardless of where the user is physically located. It allows for the inclusion of materials only available on the Internet or in digital format. It provides the user with the capability to download and manipulate text.
- It often allows for multiple, concurrent users. It eliminates the problem of a book being missing or off the shelf. It is less labor intensive.

Virtual libraries can be very useful and very diverse in what they contain. The options for what they can include are virtually endless, and become more and more boundless as technology advances. Some of the content of a virtual library may include, but certainly is not limited to, CD-ROM, Internet subscriptions, lists of annotated web links, internal work products (such as brief banks), proprietary databases (such as LexisNexis or Westlaw) and even web spiders or push technology that deliver targeted research to the user.

## **Conclusion and Recommendations**

The paper has established that computerization is an expensive but necessary project. Computerization of the library has to be done before it can go virtual. It was also discovered that in Nigeria, Information and Communication Technology (ICT) infrastructure is poorly developed. This needs to be addressed so as to facilitate the smooth take-off and running of virtual library in Nigeria. The provision of library services through application of ICTs is the current norm in librarianship all over the world. Recently, there has been emergence of virtual libraries in Nigerian Universities to provide enhanced access to national and international information for quality education and research towards national development. Relevant teaching and learning materials are made available in digital format through virtual libraries for ease of access by end users. However, there is the need to have adequate human and infrastructural facilities for sustainable development of virtual library in the country. There is a need for the government to put in place policies and strategies that will enable the libraries in Nigeria to achieve the objectives of virtual library. The government should make effort to provide funds for policy implementation, provide necessary technology training for librarians and develop information infrastructure.

Librarians and information professionals should be involved in all library initiatives. Training should be organized for the librarians and information professionals that will be involved in building a virtual library. Virtual library should provide access to subscribe electronic resources, free web based resources, locally digitized resources and open access resources. To help address the cost electronic resources and proprietary software, the government of Nigeria should encourage the use of open source software and open access electronic resources.

There is a need for libraries to seek for more grants and fund to upgrade or establish the necessary information infrastructures. There is the need for universities in Nigeria to join the information super-highway. The information in digital format is more space-saving and it is easier and cheaper to communicate via telephone over long distances. With the shift and emphasis on access rather than ownership, the cost of both hardware and software, and lack of adequate web technology skilled librarians makes the formation of a library consortium very critical to building a successful virtual library project. To meet the consumers' needs, digital library systems must be dependable; must be reasonably priced; must have powerful, easy-to-use, intelligent search engines; must have attractive user interfaces; must allow the consumer to inspect the "product" before buying; and must allow access from, and delivery to, the consumer's workstation. Universities which attempt to embark on the virtual library project must plan for significant expense and be able to place professional, technical and clerical staff at the disposition of the new service.

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