Networking of Academic Libraries: A Veritable Instrument for Information Creation and Dissemination

Richard N.C. Ugwuanyi; Michael C. Nwafor & Chioma C. Onoh
Nnamdi Azikiwe library
University of Nigeria, Nsukka

Abstract:

Purpose- This paper discusses the critical roles networking is playing in libraries for information creation and dissemination.

Design/Methodology/Approach- A literature based opinion paper which examines the numerous impact networking has made as a communication system that links two or more computers, networking cannot be dispensed with in academic Libraries in linking two or more libraries for knowledge creation and dissemination. This paper `therefore takes a critical look at networking in university-libraries by examining the conceptual definition of networking and its advantages in Libraries which includes free flow of information or communication with others who are equally networked. This paper also discussed problems militating against successful networking in Libraries, and proffered solutions to the identified problems.

Findings- Networking in libraries has enhanced and increased the rate of information creation and dissemination among libraries with ease.

Practical implication - **Libraries** as the engine house for teaching, learning and research have been experimenting on how best to meet the need of their patrons. Efficient resource sharing can only be the answer since it can be achieved by using the recent advances in information technologies for realizing a network of libraries.

Originality/value- Emerging roles of networking as a veritable instrument for information creation and dissemination are extensively discussed.

Keywords- Networking, Academic Libraries, Information creation and dissemination, virtual libraries, libraries and librarians

Paper type: **Viewpoint**

Introduction

Following the exponential creation of knowledge and information explosion many libraries, especially university libraries, are working round the clock to be able to access millions of journals and books that are being published every year. They are therefore experimenting on how best to meet the need of their patrons. Efficient resource sharing can only be the answer since it can be achieved by using the recent advances in information technologies for realizing a network of libraries. Considering the obvious plights of university libraries in Nigeria, such as poor budgetary allocation and cost of library materials, resource sharing and cooperative functioning through networking have become inescapable.

A library network according to Jebora and Devadose (2004) is broadly defined as a group of libraries coming together with some agreement of understanding to help each other with a view to satisfying the information needs of their clientele. It is a set of interrelated information systems associated with communication facilities which are cooperating through more or less formal agreement in order to implement information handling operations to offer better services to the users (Singh, 2005)

From the discussion given above, it is important to state that the critical essence of library networking is the sharing of library materials among libraries using information and communication technologies. It therefore has to do with the application of computers and peripheral devices connected to each other with a view to sharing resources over the network. Since no library can globally measure up and remain relevant in terms of resource acquisition and delivery, knowledge and services delivery through network cannot be dispensed with in academic libraries academic library is a library that serves the staff and students of academic community, colleges of education polytechnics .These group of students, staff and non- staff need library resource for their teaching, learning, recreation, research and decision making processes. As an academic site of intensive intellectual work and a heaven for meditation and contemplation (Ugwuanyi, 2009),

an academic library is a big repository of information and knowledge. It can hardly procure enough materials in this era of information globalization and proliferation. Hence such library has to endeavor not only to generate knowledge and information but also to help in managing and delivering them to their clientele. The knowledge has to be shared. For unless the knowledge created is delivered to those who need it, it is not yet knowledge. Aswall (2003) defined knowledge as the gathering, management and dissemination of knowledge. To Obasiekene (2008) knowledge delivery demands that people should make knowledge available to the users and in the format that the users can apply. Continuing, he stated that since the delivery mechanism in one situation may not be appropriate in another situation, the librarian may employ distance learning in one CD-ROM in another or on-Site expert in yet another provided the delivery is timely, purposeful and effective. Knowledge delivery is the process of enabling knowledge to get the people who need it at the appropriate time

In order to have a cutting edge over other information providers and be able to meet the 21st century global information computer-driven economy, academic libraries in Nigeria have to massively create ,acquire, store and deliver with skill and great precision their materials to their clientele at their instant demand. This is because the world has since the beginning of 20th century, witnessed a bewildering explosion in the amount of literature that is available for utilization. In the vein, the number of users stampeding to access these massive resources for their utilization is very staggering. The serious desire by libraries, especially academic libraries, to stock, process manages and retrieves urgently these materials for immediate use by the library patrons becomes a difficult task. Moreover, the cost of acquiring and delivering all the needed materials following poor budgetary allocation of funds to libraries and the fallen standard of the value of naira in international monetary markets all combine to put Nigerian academic libraries to test and to greater heart-beats of information creation, processing and service delivery, this paper takes a critical look at networking in academic libraries as an instrument for knowledge delivery.

Advantages of Networking/Resource Sharing in Academic Libraries

It is a truism that no library with good budgets or collections will have enough resources to be self-sufficient. In fact, interdependence has now become a way of life. In recent years we have witnessed the establishment of a great number of networks around the globe through which technology is utilized to facilitate a vast flow of information. This ultimately will enable and support applications of which influence people's daily lives. The major factors which have created the need for networking include the rise in the cost of publications, a lack of funds and adequate manpower, and the geographical dislocations of libraries, i.e. the fact that libraries are now located in remote and far-flung areas.

The ultimate aim of networking is to achieve maximum results with minimum input (Vyas 1997). This is clearly consonant with the nature of our economy in which capital is scarce. Networking is inevitable in all types of libraries, for it enables users to have access to the resources of many other libraries, in addition to their own.

The provision of access to networked information is now a top priority for academic libraries. These are the benefits or advantages of providing IT based services and network to university libraries.

Increased Access to Local and International Library and Information Resources.

Information Technology opens a new door for accessing a number of new information resources and services which are not available otherwise. Building integrated access to the on-line catalogue locally mounted citation databases, and network access to remote resource and services will enable users to share resources and services and reduce unit costs. One of the most important advantages of networking according to Gelaw (1998), is that it makes available the products of a diversity of information suppliers and facilitates interaction with library and information resources. Given budget cuts and rising prices of library materials, many libraries have taken advantage of networks to reach a variety of services.

The realization of the world wide digital library is based on collaboration sharing and opens technology which is of course, core to the delivery of the world wide digital library. Lishan (1997), who examined some of the more interesting and innovative current application of

networked information in UK academic libraries, mention that Academic Libraries of UK have used (JANET) (Joint Academic Network Service) for:

> ➢ access to textual and numeric databases;
> ➢ access to periodical agents and book suppliers;
> ➢ access to and transfer of bibliographic records;
> ➢ access to networked bibliographic and other databases etc.

This possibility of accessing of national networks (such as JANET (UK) and SABINET (South Africa) allowed universities to utilize network technology more easily than by running their own system once connected, the interface is the same and operates as if the resource was being accessed locally, such users are likely to be reflected over the internet.

Complement to other Resources/Services

Although there are a range of library activities suitable in the networked environment, libraries should be responsible for carrying out their traditional services ormes and Dempsey (1997) forecast that libraries of the next decade or longer will continue to utilize many information formats, especially print, CD-Rom, and on-line. Each format will be most appropriate for a certain type of information and a certain type of users.

For instance, internet as an international supplement to traditional library reference works has the potential to provide up to date information when the more conventional publishing types might be locking. However, while most of the traditional reference resources, for example, led to journal articles or books, the www-based resources led not only to journal articles but also to various information sources such as, unpublished documents, project proposals, web-pages etc.

The Bodeleian library, that comprises Oxford University Library System, (one of the oldest in Europe, and in Britain second in size only to the British Library) assimilated internet into its operations in the form of public access internet gateway system known as (Bodeleian Access to Remote Databases). Its experience also shows that it is possible to integrate electronic information with its printed counterparts and to promote the two as complementary.

Thus, network resources and services are best regarded as complementary to the print and other forms of conventional libraries, resources and services as well as a valuable add-ons in providing additional information in format that is easy to access and browse.

Improved Traditional Information Services

In this information age, academic libraries operate in a dynamic and volatile situation with traditional responsibilities. As stated by (Khali 2000), it is an evolution that new electronic resources and services are incorporated with traditional activities. Among the many and varied opportunities that the IT offers to libraries to support and improve existing traditional services and of course, the principal factor underlying networks rapid growth and wide spread acceptance as the information delivery platform of the future is that it allows libraries to provide multimedia based information in ways libraries have not been able to do before. The comparative easy exploitation of text and images, with the potential inclusion of sound and move pictures makes the network a powerful device.

The publication of home pages by academic institutions and others is currently by far the most common activity on the web. University websites now have many purposes such as: making widely available an on-line prospectus for potential students, (both internally and externally), essential information like phone and e-mail directories, details of research activities or computer documentation giving access to relevant internet resources and providing the opportunity for anyone to publish useful information on the web.

A number of academic libraries use internet as a tool for presenting and explaining what kind of services they offer, either in-house or on the net, i.e. letting the end user interact via the net with their services. The types of information libraries put on the web include: general information about the location, rules and registration procedures of the library; information about reader services (e.g. loans, reservations and available facilities); information about collection and subject access; and also information about people (e.g. staff profiles).

The external services to which links are provided by a library's home page include: other libraries' OPACs, newsgroups, bibliographic databases, electronic journals, and other library related websites to name but a few. Useful lists of links to libraries are maintained at several locations on the web. Diverse information source on different hardware platforms maybe tied together with

relative ease without the user being aware of cross-platform difficulties, to achieve an aim that is commonly stated as "bringing the library to the desktop of the user".

Electronic Document Delivery (EDD)

Academic libraries and information centers are faced with the need to provide services to an increasing number of students, and to cope with huge rises in the cost of books and journals. The increasing difficulty in subscribing to core journals caused by price increase and the need to create more space in the library play a significant role for the acceptability of EDD services. William (1997) demonstrated that EDD could be a viable alternative to expensive journal subscriptions. The expenditure used for periodical subscriptions are now spent on periodical acquisition and delivery.

The British Library Document Supply Center (BLDSC) is the largest organization in the world which is devoted to the supply of documents either on loan or as surrogate copies to remote users. (It receives about 3.7 million requests each year). The BLDSC has been running electronic document delivery services with the University of East Anglia; following request transmitted by email for articles in journals which may no longer subscribes to by the library. The requested article is restricted, scanned and sent by e-mail. But as development in technology advance so fat and increasing number of full-text journals become available on-line "search by search", for example, is silver platter's initiative to bring the world wide library into being. It is one of the internet based service initiative that allow users (libraries) to search silver platter's bibliographic records for (free) unlimited search. Silver platter's linker links users from the bibliographic record to the full record. When users want to see the search result or the actual (full text) record then, users start paying. Just like document delivery service; here also users need to pay; however, instead of receiving the document by fax or by post, user will have it automatically on the screen. Now again there are some databases which a library is likely to access few times in a year do not warrant full subscription. Now that libraries can have free access to silver platter's search by search collection on a pay as needed basis, (paying only for what libraries use), this internet based new services adds resources to a library's collection without the cost of additional annual subscriptions or on-line connection. Moreover, as a library account balance is displayed on-the screen with details of information on the databases searched, the usage statistics can help libraries utilize their budget optimally.

Electronic Journals

A linked area to that of electronic document delivery is that of electronic journals. Transmitting journals across networks is a major advance. Publishers are tending to offer electronic journals (e-journals) via their web sites. A recent article by Edward (2009), shows that the total number of electronic journals is so large that the most ostrich-like librarians can no longer ignore them. Many more journals according to Reid (2006) are also available in electronic form. The www access to journal articles provides rapid access to the abstract, complete text and graphics of any research articles; with sophisticated search facilities. Adobe Acrobat software on the network delivers an exact replica of the printed journal pages to one's desktop when one clicks on a Portable Document Format (PDF) link. Once the article is on view, one can move from one section words or print whole article. Therefore, the value of electronic journals lies in the fact that they enable users to navigate through large chunks of information until they find what they want. This means an increasing number of different access points for users and provision of an extensive archive of materials, (i.e. providing comprehensive coverage, rather than just the latest issue. Furthermore, articles with related information are electronically grouped and accessible via a 'see also' command and reference quoted in some electronic journals. The citation data it gathers can provide users with information about the research influence and impact of journal in their fields. The electronic journal is, with speedy delivery, availability unlimited by time or geography, and searching facilities (including all the shelf space saved), therefore, the answer to so many of our traditional problems. Tan & Jinhong (2001).

New Roles for Academic Libraries and Librarians

IT enhances access to information and provides new opportunities for academic libraries. In most developed countries university libraries, almost all users have easy access to powerful workstations either located in their own offices or in special student rooms. The libraries themselves are not only equipped with various IT based resources but they provide their users with IT based services. The library's role could include: create, manage, and make available a

broad range of instructional materials to support teaching activities. The evolution of information technology demands new skills for library staff in order to guide the evolution. Defining the necessary skills for the electronic librarian, Ifidon & Okoli (2004) argued that it could be difficult until the library defines the types of library services and product it intends to provide. Most library and information professionals expressed concern that moving the library more into knowledge management rote (such as, filtering information, locating and re-organizing information, customizing software and developing new applications, and translating information across different formats would likely constitute a re-conceptualization of the library. For the recent job advertisements, one can see the trends of the requirements of academic librarianship in the internet age.

Problems of networking in academic Libraries

The problem facing networking in academic libraries especially in Nigeria and other developing countries is their inability to acquire adequate and up to date library and information materials. There are also a number of other problems that limit networking/resource sharing in academic libraries. These problems include:

Lack of adequate funding: amongst the problems that academic libraries have been experiencing and which are common to most of libraries in Africa and other developing countries, the most prominent has been inadequate budget/fund. Although the federal government budget provision has moved from 5% of approved recurrent budget for Library develop to 10%/ the budget of many academic libraries continue to dwindle. A high rate of inflation, low and unpredictable national income, the effects of global economic depression, and local currency devaluation continues to water down whatever provision is made for academic libraries in Nigeria. Many academic libraries in Nigeria according to Nok (2006) have not initiated viable income-generating strategies to supplement government funding.

A global rise in the price of periodicals coupled with devaluation of local currency resulted in the need for more fund to subscribe even to the same periodicals libraries have acquiring. On top of this, they are suffering badly from budget reduction to such a small amount that it has become difficult even to sustain subscription to the journals they currently receive (let alone to acquire new ones).

Poor IT and Networking Infrastructure: Lack of strong IT infrastructure is one the main problems that would limit the effectiveness with which academic libraries could access, share and utilize the IT-based information services in general .As some academic libraries do not have local Area Network, access to the internet for the time being is limited to stand alone machine with moderns .Lack of a national network infrastructure is partly responsible for this. Even though some academic libraries have the basic infrastructure for telecommunication, because of low bandwidth, reliability of data transmission is low and transferring multimedia data such as audio, video, and images is very difficult.

Lack of Skilled Human Resources: Networking of academic libraries requires skilled manpower to install and network. The demand for technology literate staff in academic libraries has gone up. The existing poor information technology infrastructure significantly contributes to the high rate of turnover of well-educated library staff. Professionals having good IT skills prefer not to join Libraries. They join other companies and organization to apply their skills. Generally; it is difficult to retain skilled professionals at some academic libraries due to a combination of low salary and benefits, poor IT infrastructure and work environment and limited opportunities (Bii & Wanyama 2000).

Education and Training: Most staff in academic libraries in Nigeria were trained in traditional librarianship. They are finding it difficult to cope with the requirements of the electronic age. Staff training and retraining have not been given a pride of place. Some academic Libraries have initiated computer literacy training for their staff, which has had a Lukewarm reception. This attitude is a great deterrent to the networking of academic libraries .These challenges have far-reaching effects on the implementation and sustenance of the automation and networking of library services in most Universities in Nigeria.

Poor Maintenance and Update Culture: There is a poor maintenance culture in Nigeria. Universities are not an exception, most Universities in Nigeria have very poor maintenance. The size and Complexity of the task have almost completely eroded maintenance at most Academic libraries. This erosion is manifested in the frequent computer and Network breakdowns and/or failures. To handle the growth of the library database and ensure

fast data entry, retrieval, and inquiry through the networking, there is need for regular and consistent upgrade of computer facilities

Poor State of Power Generation: Regular power generation remains a problem in Nigeria. Frequent power outages Constitute a serious bottleneck to automation and networking. The cost of running generating Plants is prohibitive.

Conclusion

Lack of funds and lack of information resources have been problems for academic Libraries in Nigeria in particular and Africa in general for many years. In addition, Automation and Networking of information resources and services pose new problems. These include the acquisition, selection, and cataloguing of online information resources, the construction of databases, providing information literacy education for library users, and the new skills required by, and continuing education for, librarians. However, if the library ensures sound and quality automation of services and information resources, creates new approaches to user education, pays attention to the provision of continuing education for library staff, helping them to master the new techniques required for the management of electronic and the networked information resources and services, the gains of automation and networking are immeasurable.

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