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Challenges of E- Resources and Services for Effective Service Output in University Libraries in India

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Abstract

Technology has brought radical transformation on the way academic libraries operate, digital information resource and services has tremendously transformed information handling and management in all spheres of human Endeavour including university library services. This study has carefully looked at the concepts of digital information resources and services, university library, the imperative for the use of digital resources by university libraries and study investigated the various challenges hampering the effective use of resources by university libraries in India. The findings are poor funding to provide modern ICT facilities and internet connectivity, power supply inadequate power supply without electricity the aim of digital information resources will be defatted and ICT Illiteracy majority of the staff and students are computer illiterate. Finally the study recommended that the government should show more commitment to the development of ICT base in the country by making available ICT grants to our universities, the universities should organize ICT training for students and library staff through workshop, seminars, conferences and orientations, provision of adequate power supply such as standby generator recommended as the way forward towards enhancing effective services.

INTRODUCTION

University libraries are repositories of information and education resource consciously acquired, preserved and made available for the use of the university institution. University libraries are complex institution with multiple roles. They provide not only books and space for students to study but also provide services for facilitating research activities, such as bibliographical, reference and information literacy services. In view of the foregoing, it will not be out of place to note that, for a university library to be able to render effective information services such as lending, referral, microfilming, indexing and abstracting current awareness, document delivery, photocopying, E-mail, facsimile, bindery, translation, consultancy, on-line database searching, user Education, current content listing technical writing, selective dissemination of information and data processing among others must have adequate resources at its disposal. Ibene (2010).

Posit that libraries are channels of delivering information. The rigid nature of the traditional role in providing information service to its respective users has been revolutionized by the advancement in information and communication technologies. According to Popoola (2008), library users are expected to locate the resources they want in a digital form and accessible electronically and are beginning to demand a one – stop shopping in an integrated information environment. This demand by university library users calls for more decisive strides by India universities to equip their libraries with the necessary Information Communication Technology (ICT) facilities that would enable the university to provide the services expected of electronic libraries of the present times.

Abubakar (2011) observes that the rapid pace of development in the field of information technology and the advent of networked information services have prompted a comprehensive review of the library and information science (LIS) profession.

As Mac Whinnie (2003) noted, incorporation of this technology in the library is a logical step toward providing students with the technology and information they need, and academic librarians in Nigeria are strategically positioned to play major roles in

promoting digital revolution in the art, craft and science of librarianship. Khoo (2005) noted that " the profession has arrived at a watershed in the history when the nature of the profession could change dramatically depending on how (Librarians) respond to the challenges in their environment".

Concept of Digital Information Resources and Services (DIRS)

Digital information environment has ameliorated the barriers to information access usually associated with distance and time, both within and outside the university environment.

According to Adeyinka, Adedeji, Ayen, and Omoba (2008), digital resources encompass those objects that employ rich media and span text, images, sound, maps video, and many other formats. These resources include music, games, stories, articles from magazines published journals (e – journals) and books, encyclopedias pamphlets, cartographic materials and other published resources that are in soft copies. They also often include sound animated graphics, pictures and movies. The use of these resources have contributed to reshaping information retrieval process and access to information. The resources have the potential for enhancing researcher's learning, as they provide researchers with vast quantities of information in easily accessible non sequential format. The types of information available to users in digital form have continued to grow. Omekwu (2010) affirms that availability and accessibility of information has increased remarkably due to the digitization of information. With the digital technology, information in various formats – text, audio, video and electronic can be created, stored, organized, accessed and transmitted with relative ease, and in forms that we could not have thought of earlier.

In their contribution, Emwanta and Nwalo (2013) highlighted a number of benefits derived from the use of DIRs in the provision of digital services. These benefits include the fact that digital resources are often faster to consult than print resources especially when searching retrospectively, and they are straight forward when wishing to use

combination of keywords. The resources open up the possibility of researching multiple files at a time and can be printed, searched and saved to be printed, searched and saved to be repeated or consulted at a later date. They are updated more often than printed resources. Digital resources provide access to information that might be restricted to the user because of geographical location or finances. They also provide access to current information as these are often updated frequently. These resources include Online- Public Access Catalogue (OPAC), Compact Disk Read Only Memory (CD-ROMs), Online-Databases, E- journal, E- books. They also often include sound animated graphics, pictures and movies. These among other digital resources make possible for the provision of Digital Information Services (in libraries).

Concept of University Library

Libraries have long been crowned knowledge institutions as they provide the public with spaces and resources for information and learning. Generally, libraries are grouped into different types which are public, special, private and academic libraries among others.

Academic libraries ideally should be living organs that are fully responsive to the needs of the patrons. Academic library is defined, according to Omekwu (2010) as those libraries that are mainly founded in tertiary institutions, they are established to support learning, teaching and research processes. Examples of academic libraries are libraries situated in universities, polytechnics, colleges of education, agriculture, aviation etc. Hence, university library as defined by Reitz (2004) is a library or library system established, administered, and funded by a university to meet the information, research, and curriculum needs of its students, faculty, and staff. Ifidon (1985) in Egberongbe and Okiki (2006) list five major objectives of the university library as: provision of materials in support of learning and teaching; provision of materials to meet the requirements of faculty specialists and postgraduate students who are doing research; provision of materials to assist the library user in his own personal self development. Cooperation with other university libraries, with a view to developing a network of academic library resources which are at the disposal of all students and teaching faculties and finally; meeting the specialized information needs of the regions within which the universities are situated. Similarly Hardesty (2000) notes that, the vision and mission of university libraries are changing. Many university libraries now take on the key role of providing the "competitive advantage" for the parent university, a factor that is crucial to both staff and student university libraries are positioning themselves to be the learning and research centers of universities. They are sometimes known as the "learning building" and are constantly asked to examine what value they add to student learning outcomes.

An academic environment without a library is tantamount to a person without a brain (Yusuf and Iwu 2010) the university library serves as the nerve center or the hub around

which scholarship revolves. It is an indispensable instrument for intellectual development. A well stocked university library, according to Yusuf and Iwu (2010), is a storehouse of information, or a record of human experience to which the university community may turn to for information. He as also observed that university libraries have for centuries played critically important roles in supporting research in all subjects and disciplines within their host universities. Similarly, Hardesty (2000) posit that the library stands in the same relationship to the society as the memory of an individual by making available and accessible to its users information required for teaching and independent study. The main purpose of the an academic library as stated by Aina (2014) is to support the objectives of an academic environment in the areas of learning, teaching, research, and service. Oyesiku and Oduwole (2004) assert that in academic communities, libraries are indispensable. Guskin (1996) notes that, the use of university libraries promotes active learning, thus contributing to student ability to think critically and work well independently or in group.

Globally, according to Ani (2013), in Asom and Suleiman (2017) university libraries are saddle with the task of providing information to academic staff for teaching and research. ICT has brought about innovation in librarianship where access to information is made available to library patrons beyond the physical boundary of the university library.

The Imperative for Digital Information Resources and Services by University Libraries

The world is presently witnessing the birth of digital data and communications networks as a major trend in information market place. With the evolution of digital data and telecommunication networks, the so-called digital revolution has come to bear immensely on socio-economic, cultural and as well as developmental transformation of individuals, institutions, nations and international community (Omekwu 2001). With these new innovations, many libraries are digitalizing their resources. The encouraging factors, according to Anand (2014) who summarizes the benefit of digitalization of information

resources to include: Universal Access, i.e., people from all over the world gained access to the same information as long as an internet connection is available; capacity- there are limited storage space in traditional libraries while digital libraries have the potential to store much more information, simply because digital information requires very little physical space to contain them ; Cost –the cost of maintaining a digital library is more lower than that of a traditional library; A traditional library must spend large sums of money paying for staff, book maintenance, rent and additional books; improved searching methods through different search engines and manipulation of information; improved facilities for information sharing; Accessibility to information is made possible in a short time; improved collaboration with other information institutions and centers, opportunities to form consortia where they can pull their resources together and get a good bargain of scale to acquire library software.

Contribution further, Madhusudhan (2010) highlights some of the reasons why digital resources are imperative. These include: to get access to an information source by more than one user, the resources can be searched quickly and can be found easily by the user, these resources can also be stored in huge amount and can also promote efficient delivery of information economically to all the users and encourages co-operative efforts to save and share the investments in research resources, computing and communication network. Williams and Channaveeraiah (2008) note that today, libraries are shifting their role from the custodian of traditional information resources to the provider of service- oriented digital information resources. The widespread use of computers, increased reliance on computer networks, rapid growth of internet and explosion in the quality, and quantity of information compelled libraries to adopt new means and methods for the storage, retrieval and dissemination of information. The development of digital libraries and application of innovation information and communication technologies (ICT) have tremendously increased because it provides enhanced user satisfaction, cost effectiveness, rapid responses, and easier operational procedures. Williams and Cannaveeraiah (2008)

concluded that academic libraries have been employing ICT and electronic information resources and services to satisfy the diverse information needs of their users.

e- journals, CD-ROM databases, online databases, e- books, web- based resources, and a variety of other electronic media are fast replacing the traditional resources of libraries. Onoriode and Ivwighreghweta in Oghenetega and Ivwighreghweta (2013) listed modern technologies for the library to include computers i.e. desktop, laptop, i-phone, i- pad etc; peripheral like keyboard, speakers, bar code readers, printers etc; network equipment and cables like Cat-5, coaxial, fiber optics and their various connectors, routers, switches, satellite and their modem. They also stressed that software like Operating System (OS), application and utilities software are part of modern technologies used in academic libraries. Olanlokun (1993) Asom and Suleiman (2017) stated that the advent of the internet has brought awareness of the importance of global communication. People, organizations, and businesses are better informed and more connected to each other than ever before with this development. Ajala (2007) in Yusuf and Iwu (2010) observes that libraries without internet access may lose their relevance in the academic community as most students, lecturers, and researchers aware of what internet provides, and they resort at a much greater cost to cybercafés to satisfy their information needs.

The effectiveness and efficiency of services provided in academic libraries are mainly determined by library users. Oyesiku (2004) assert that the library user is regarded as the most logical source to determine whether the library is playing its role satisfactorily or not. Emwanta (2013) submits that satisfying user needs is essential to the management of libraries. The management staff of a library should be aware of the current needs of their users, which may vary from one library to another as well as from time to time. Therefore, carrying out regular surveys on user needs at regular intervals on various aspects of library usage will be an invaluable guide in determining the future directions of library developments. Consequently, Popola (2008) opine that the university library system must ensure closer relationship with its clientele. To achieve this laudable goal, library personnel should provide specializated information services for which students

and lecturers as well as other university community members should make contacts with the library.)

Challenges of E- Resources and Services for Effective Service Output in University Libraries in India

While the electronic shift has helped to alleviate some of the problem and costs previously associated with printed material, Lucky (2015) observes that is has also presented its own obstacles, such as those of ICT infrastructure and internet connectivity. The savings associated with digital formats have made book and journal purchasing more affordable, but this has been met by an ever-growing need for substantial investment in computers campus networks and internet access, meaning that, in many cases, the costs have simply shifted elsewhere.

Locating and accessing scholarly information online, rather than in print form, requires a very different set of skills and new approaches to academic resources. With the rapid expansion of higher education across the continent, new types of programmes and methods of delivery, such as online and distance learning being developed to meet demand, and new digital facilities and services required by researchers and students, libraries face many pressures. In most cases most of these digital storage media require apparatus to make them readable. With changes in technology, their hardware and software become obsolete thereby shortening their useful life span.

Furthermore, apart from the technical aspect there are administrative, procedural, organizational and policy issues surrounding the management of digital materials? Digital documents are different from traditional paper documents in ways that have significant implication for the means by which they are generated, captured, transmitted, stored, maintained, accessed and managed. Paramount amount these differences is the greatly reduced life time of digital information without some form of active preservation. These differences mandate new approaches to accessioning and saving digital document to avoid their loss. A scholarly journal on the printed page can be viewed and read without

any special equipment as long as one knows the language in which it is written. Digital scholarly Journals, however, cannot be viewed without special equipment, such as a computer, an internet connection, and the required software. Richard (2006) explains the differences between print and digital media as follows: unlike paper or microfilm where the meaning is transparently inscribed on the surface of the medium digital documents are opaque bit streams only understandable to humans when interpreted by a machine.

Poor Funding: A large amount of capital investment is requested to provide modern ICT facilities if libraries and librarians in India to remain comfortable in a digital environment. But internet connectivity is very expensive considering the hash economic condition. Mutula (2007) envisage this predicament when he pointed out that digitizationof information in print requires enormous funding due to frequent hardware and software upgrades and increase cost of subscription to electronic databases.

Shoddy Power Supply: frequent power outage constitute serious bottleneck to digitization in Africa. Zulu (2008) reported that most country In Africa do not have adequate and reliable supply of electricity. Consequently this makes it impossible to maintain a conducive environment for sustaining ICT infrastructures.

Emma (2010) pointed out that the life expectancy of digital media is another issue of concern. The short lifecycle of digital media is a threat for digital archiving because digital media become obsolete much faster than printer media. The format of the digital resources can be demaged or lost and may no long be intact, retrievable, understandable, or displayable. The technology used to store the publication is likely to become obsolete even before that happens. Therefore, continued access to archived resources is a big issue in digital archiving as opposed to traditional archiving.

The Way Forward

Despite the above challenges, Lee (2008) maintains that, making digital resources and services available for use by students and other users is very vital as digital libraries provide electronic book (e- book) alerting services, special collections CD- ROM, online

reference tools and these improve the quality of teaching and research. These, therefore, means that when DIRs are available in our university libraries, services delivery will greatly improve. It is in view of these that the researcher recommends the following as a way of assuring the sustainability of university libraries in India:

1. Government should show more commitment to the development of an ICT base in the country by making available ICT grants to our universities and libraries in particular on annual basis.
2. The universities should also meet the ICT training needs of the students and library staff through organizing workshops, seminars, conferences, orientation; and attendance should be made compulsory for all the students and staff.
3. Government should support and provide more stable power supply and university authorities to supplement this power supply by providing stand-by generating sets to all departments in the universities.
4. University authorities should lunch free internet services with high speed bandwidth on the campuses and should make it available to the libraries and other staff in their offices.

Conclusion

The major problem associated with the traditional information environment which is virtually dominated by the printed sources is that of "available" of information without its corresponding "accessibility". But with the computerized library services, CD-ROM/online databases, the internet, intranet/campus networks and digital libraries, there is relative ease of accessibility and utilization of information by researchers than obtainable in the tradition information environment. Thus, the impact of the paradigm shift from the conventional information environment to electronic information environment in the research process in African universities cannot be overemphasized. The emergence of electronic information environment has ameliorated the barriers to information access usually associated with distance

and time, both within and outside the university environment. Hence, access to information is more cost effective than obtaining in the traditional information environment.

REFERENCE

Adeyinka, T., Adedeji T., Ayen C.O. and Omoba R. O., (2008). Self-Efficacy and use of electronic information as predictors of academic performance. *Online Electronic Journal of Academic and Special Librarianship,* 2(8)1-17.

Aina, F.R. (2014). Awareness accessibility and use of electronic databases among academic staff of Babcock University Business School. *Kuwait chapter of Arabian Journal Business Management Review* 3 (6) 34-36.

Anand, Y. K. (2014). Types of e-resources and its utilities in library. *International journal of information sources and services*, 1(2) 97-101.

Asom, F. Suleiman M. (2017). The incursion of digital information resources for effective service delievery. UNN *global best practices in library and information services*.

Egberogbe, H. S. Okiki, C.O. (2006). A survey of the extent of utilization of services of University of Lagos library. *Journal of information science*, 5 (2) 77.

Guskin, A.E. (1996). Facing the future. *Change*, 28 (4)26.

Hardesty, L. (2000). *Do we need academic libraries*? Position peper of association of college and research libraries (ACRL). Retrieved from: http://www.ala.org/acrl/academiclib.html on march 22 2014.

Ibenne, S. K. (2010). Information Resources Management. *A concise text for libraries and information centers*. Owerri Liu House of Excellence Venture.

Khoo, Soo- Guan, C. (2005) competencies for new era libraries and information professionals, Available online at http:// www. Lib.usm.my/elmu- equip/ Conference /Document /ICOL, Accessed July 5, 2012.

Lee, S. (2008). Electronic Collection Development : *A practical guide*. New York: Neal Schuman Publishers INC.

Mac Whinnie, L. A. (2003). The information communications: The academic library of the future, portal: *libraries and the academy*, 3(2), 241 – 257.

Madhusudhan, M. (2010). The use of electronic resources by research scholar of Kurukshetra University. *The electronic library*,28 (4) 492.

Mutual, S. M. (2007). Paradigm Shifts in Information Environment; Prospect and Challenges for African Libraries, *library Hi Tech* 25(3), 396.

Omekwu, O.C., (2010). The digital economy and knowledge professionals: from fact to the future. In scholarly communication and information: mentoring, mastering and modernization: proceedings of second professional submit on information science technology (Pp. 1-15). Nsukka: Nnamdi Azikewe Library.

Oyesiku, F. A. Oduwole, A.A. (2004). Use of an academic library: A survey on the Olabisi Onabanjo University Library. Lagos journal of library and information science, 2(2), 96-98.

Popoola,S.O. (2008). Faculty awareness and use of library information products and services in Nigeria Universities. *Malaysia journal of library information science.* 13 (1), 99.

Reitz, J.M., (2004) *Dictionary for library and information science*. London, Library Ulimited.

Richard, P. (2006). Elephants and Dung-Trucks. *Information today . (40) 33. Retrieved from*

http://www.dspace.dia.pipex.com/town/parade/df04/elephants-and-dung.htm on july 15, 2014.

Ubogu, F.N. (2000). The paperless society. Face or reality? *African Journal of Library Archival and Information Science*. 10(1) 1-5.

Williams, T. & Chanaveeraiah, L. (2008). From automation to transformation: impact of ICT in LIS: major shifts & practices. International CALIBER-2008.

Zulu, S.F.C. (2008).Intellectual Property Rights in the Digital age. In L O Aina et al (Eds) Knowledge and Information Management in the Digital age: Concepts, Technologies and African Perspectives. Ibadan: Third World Information Service.

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