

DIGITAL INFORMATION SOURCES TO FULFIL INFORMATION NEEDS OF PEOPLE WITH SPECIAL NEEDS: IMPLICATIONS FOR REMODELLING NIGERIAN ACADEMIC LIBRARIES

Abdulsalam Aminat OBAKHUME; Imran, Abdulakeem AKOWORADA & Mosebolatan Babatunde I. IDOWU

College Library, Federal College of Education (special), Oyo.

Abstract

The thrust of this paper emphasizes use of technology to break all barriers to learning by advocating for inclusive information resources for users of academic libraries irrespective of physical disabilities. The paper discusses the importance of information sources and information provision for information needs of people with special needs as a measure for remodelling academic libraries in Nigeria. The paper noted that electronic resources and services are favourably accepted by some users not because of its quality and superiority over print but rather on account of easy access, fastness and ability to access the resources remotely by means of electronic devices, such as IPods, handsets, laptops and desktops at home. Challenges to achieve the forgoing were identified as inadequacy of resources, technological obsolesce, financial resources and falling library budgets among others. Attempt was made to proffer solutions to the lingering challenges. Some of which include: Licensing information products for mobile devices' users or library patrons, Hosting or pointing to institutional content intended for mobile devices, e.g. podcasts, Preserving new content types and formats, become service hub for mobile content and devices. The paper concludes that digital information sources have become essential for remodeling academic libraries for the advantage of persons with special needs. Therefore, as we move further in this digital visual information age, the need for academic libraries to develop global information infrastructure should be increased sharply in order to complement information provision for educators and people with special needs hence; the urgency of technology in remodeling library services in support of people with special needs.

Keywords: Academic Library, Information Services, People with Special Needs, Special Needs Educators

Introduction

The world is moving fast and society must continue to probe, breath and plant to upgrade what future holds for them. In academic sphere Librarians are the recognized mangers and providers of information sources for teaching, research and scholarship in servicing information needs of groups or individuals including people with special needs. In the past, the print sources were the main commodity for providing these services but in recent time, the occurrence of electronic sources has impacted positively on library resources, services, storing and broadcast. However, it poses challenges to academic libraries especially in Nigeria and developing nations

where the digital infrastructure is grossly inadequate, dwindling resources and low level IT skill and hosts of other challenges like power supply and low bandwidth prevails. Against the backdrop of demands by the new generation of academics for paradigm shift in approaches of information generation storage and services targeting at satisfying educators and people with special needs; academic libraries are therefore required to buttress up to these challenges, assess, emphasize and redefine their informational role to meet demand of people with special needs which is basically digital driven.

Every library and information systems exists for the sole aim or target of fulfilling or satisfying the information needs preference and choice of source or format of users. Since users of the library also include persons with special needs (PWSN) as well as their educators then, library activities, services and products are tailored to meet their varying needs and provision is given for preference by this category of users either to consult prints or non-prints information sources available in the library. This is achievable through a systematic acquisition and organization of all forms of recorded and unrecorded information in all fields pertinent to their goals set for research. Digital revolution has profoundly changed the way that we live and work, while there are great benefits to the availability of information via the internet, it has put new pressure on libraries especially the academic libraries to remodel their services to the inclusion of persons with special needs.

Conceptual Meaning of Academic Libraries

Academic Libraries are libraries attached to tertiary institutions such as universities, polytechnic institutions, colleges of education, colleges of agriculture, colleges of technology and also research institutes. These libraries are established to support learning, teaching and research in tertiary institutions identified. Although, academic libraries are advancing away from the traditional pattern, a model that is no longer viable. Reitz (2004) defines Academic Library as 'an integral part of a college, university or other institution of post-secondary education which is established to provide information sources and services to support learning, teaching and research needs of students and staff. The information resources of academic libraries were mainly printed materials like textbooks, indexes, abstracts, journals, reports and manuscripts. These definitions presupposes that information resources is required to provide services, but it also sees the physical organization and administration of information resources based on defined principles of library and information science as inseparable. This is because the information resources (print and non-print) were physically organized and confined to a location and users go there to consult them.

The academic library is the nucleus of any academic institution, which major objectives and functions is to help her parent organization to fulfill her primary objectives which are teaching, learning, research documentations and publishing. Ogunsola and Okusaga (2006) pointed out that the academic libraries have long been recognized as the "hearts" of their academics. To fulfill their mission of supporting the educational objectives of their parent bodies, which include teaching, learning, research, and cultural development, the libraries had to develop and maintain standard books, journals, and audio-visual collections and services. It must be

emphasized that academic libraries in Nigeria are struggling to find their place in the face of the emerged digital technology. The authors regard digitalization of academic libraries as a child of necessity arising from need to use technologies in accessing the world of information overload, or information explosion, for human survival and development. It is necessary for academic libraries to embrace it. The right to access information and ideas is vital for any group of individuals in the society regardless of any form of physical disabilities.

Digital Information sources in Nigerian Academic Libraries

Information resources refer to the materials and tools used to gather, process, and store and disseminate information. They can be categorized into two main groups namely: Physical and Human resources. Physical resources include hardware, software, equipment, facilities and other materials used for information processing and storage while Human resources include the personnel involved in managing, operating and maintaining the information resources, such as IT professionals, librarians, technicians and other support staff (Tahir, Mahmood & Shafique, 2008). Information resources include but not limited to Dictionaries, Encyclopedias, Books, E-books, - Journals, Journal articles,, Websites, Newspapers, Manuscripts Conference proceedings, Social media Reports, Standards Patents; Theses and special collections. Digital information sources therefore, are any type of information or media that is stored or transmitted in a digital format, such as on a computer or the internet. Some examples of digital information sources include: Online databases: JSTOR, ProQuest, EBSCO, E-books: Kindle, Nook, iBooks Digital archives: Internet Archive, Library of Congress Digital Collections, Social media: Twitter, Facebook, Instagram, Online news sources: CNN, BBC, New York Times, Online videos: YouTube, Vimeo, TED Talks, Online journals: PLOS One, Nature, Science, Web-based tools: Google Drive, Dropbox, Canva among others.

Digital technology has revolutionized not only the way information is packaged, processed, stored, and disseminated, but also how users seek and access information. Academic libraries no longer restrict themselves to print services such as collection development, cataloguing and classification, circulation and reference services, current awareness, selective dissemination of information and other bibliographic services, but have extended their efforts to interdisciplinary concepts and computer software and hardware and telecommunication engineering and technology. According to Aina (2003), the availability of full internet access in any Nigerian library will facilitate online access to the world of information. Electronic information sources makes library consortium possible. Once the network is in place, cooperating libraries will have access to the catalogues of participating libraries through Online Public Access Catalogues (OPAC). The consortium will ensure that each library has access to the OPACs of libraries, CD-ROM databases, electronic journals, full-text databases reference resources and important documents. The use of computers for example, in the circulation section of the library helps to eliminate some of the repetitive nature of manual work. Since the work in the circulation section of the libraries involve such routine work as charging and discharging of books, writing of overdue notice, reservation of books and compilation of accession

lists of new arrivals, recording of fines and keeping statistics of use of the libraries resources. With the use of computer, these jobs are performed faster, neater and with high level of accuracy. The boredom resulting from repetitive of routine work is also eliminated.

Peculiarity of Persons with Special Need

Human beings who deviate from the norm either positively or negatively could be referred as people with special needs. In special education, these groups of people are of two categories. In the first group are those with intellectual disabilities, those with visual impairment, hearing impairment, learning disabled physical and health impairment among others. In the second category is the gifted and talented whose intellectual capacity is so high thus; readily pose challenges to the educators in the classroom environment. In this regard, the exceptional capability of individuals in these two categories highlighted called for special education services to be provided for them in order to cater for their specialties (Dafwat, 2014).

On the other hand people with special needs can be viewed as those with one form of disabilities caused as a results of hereditary, chronic disease and or accident which directly or indirectly deprived them to perform their daily living skills like other able counterparts. Tahir, Mahmood, & Shafique, (2008) state that people with special needs are those who have difficulties in realizing their full human potentials emotionally, physically, socially or intellectually. As further described by the authors, they are the group of human beings whose performance falls below or rise above that of other children. So, judging from this description, one may be right to say the differences between this group of people with special needs and others may be related to physical, cognitive, emotional or psycho-social factors or a combination of all. Therefore, information offered to educator of people with special needs in academic library will surely give a sense of direction to make adequate provisions in teaching and learning process and at same time equipped the people with special need themselves to cope and able to compete with fellow students in regular school or classroom.

Persons with special needs are human beings with all the need of life in addition to special provisions by Librarian in terms of materials and time in order for them to realize full potential. There are various ways of identifying persons with special needs. The basis for such identification is rested on information which could be through screening, observation, interviews and use of test such as: snellen chart, acuity chart, IQ-achievement discrepancy, response to intervention intelligence test, rating scales classroom achievement test e.t.c (Aiyebelehin, 2012).

Relevance of Information for people with Special needs

Education is seen as the key to unlocking not just social but informational problems. This implies that in the light of rapid development in this century, special education helps people to make sense of the attitudinal change as well as fostering sustainability, including lifelong learning hence; people with special needs should be considered when drawing architectural design of academic libraries including services offered. There are many factors that could lead to effectiveness of education

of people with special needs. Some of these factors include the provision of infrastructures, proper funding, and presence of dedicated educators. In reality, educators of people with special needs play a vital role in the process of ensuring that objective of educating people with special needs is achieved. Ame (2001) observed that improvement in the quality, efficiency as well as equity of education depends on the nexus of teaching. No doubt, educator is a prime factor in any functional system of education of people with special needs. In special school or colleges, educators are expected to make significant contribution to policy development relating to teaching and learning. They also manage curriculum or activities of students with high degree of independence. Similarly, teacher's ability to perform greatly depends on his ability to meet his information needs. Osokoya (2010) noted that information need is construed in the sense of data or a set of data specially required enabling the user to make an appropriate decision on any related problem facing him or her at any particular time.

Information needs refers to an individual's desire to locate and obtain information to satisfy a conscious or unconscious needs (Okiwlagwe, 2001). Teacher's ability to perform greatly therefore, depends on his ability to meet his own information needs. Information need can also be seen as a state when one perceive that there is a gap between the information and knowledge available to solve a problem and the actual solution to the problem. The gap in knowledge create a need that must be satisfied (Olaniyan, 2009).

Human's needs as highlighted by Maslow varied. The need for information is one of need of man that resides at the cognitive domain of the human mind. Therefore, information as basic need is simply the gap between what we know and what we need to know. In his regard, information needs of educators of people with special needs simply refer to the information they require in order to effectively discharge their duties and make them function effectively in the society at large. So, it is not out of place to say information is needed in all stages of work activities of teaching people with special needs. Obviously, the need for information gives the educators the motivation to search for sources of information needed and arranging them based on scale of preference in order to search within the available information. The implication of this is that if educators of people with special needs do not perceive a source of information as capable of meeting a need he may not likely appreciate it.

It should be noted that educators of special needs students / pupils have a preference for sources that were immediately accessible to them. Researches in the past indicate that information seeking by educators of people with special needs may be motivated by a wide variety of needs thereby resulting to placing them on preference. This according to Bronstein and Arbib (2008) include teaching needs, personal needs, and professional needs among others. It therefore became imperative on the part of librarian to identify these needs and provide suitable information resources for educators and people with special needs (PWSN) to make choice.

Remodelling Information Provision for PWSN in the 21st Century

Nigeria, just like other developing countries in the 21st century, is endowed with information professionals (librarians). This category of professionals has taken

significant part in the delivery of educational services in many dimensions. Information dissemination is of those areas which librarians have contributed immensely. Information is right of every citizen no matter their physical and emotional dispositions. Education for persons with special needs must be adequately focused in the provision of information on the platform of education for all in order to avoid disparity and discrimination which constitute hindrance to individual and societal growth and development (Arua, 2015).

Availability of information resources does not necessarily imply its accessibility, because the source may be available but access to them may be prevented for one reason or the other. In order to satisfy the information needs and the interest of the educators and PWSN, the library collections must be adequate in terms of quantity, quality and currency. Also the collection must be accessible to them in format most convenient for them to use e.g audio, video and audio-visual like audio books and journal, use of direct image, magnifiers and others. Therefore, information is one of the needs of man that resides at the cognitive domain of the human mind hence, a basic requirement for educators and PWSN to discharge teaching task effectively. Tahir, Mahmood and Shafiq (2008) in their study on the information needs of teachers found that basically they need information for teaching-preparation, support personal research; develop competence, keeping up current development, carryout administrative work among others. The absence of this information will hinder the effectiveness of the educator and by extension, affect the academic performance of PWSN.

Ideal Sources of Information for Educators and People with Special Needs

Information sources are the materials or means through which information can be found. These ranges from books, journals, encyclopaedias, biographies, bibliographies, indexes, abstracts, and non-prints such as films, slides, projected opaque, transparencies, video tapes, disc, CD-ROM record tape and of course the digital satellite television and the internet. Information source for educators of people with special needs consultation may be electronic or manual. The reason a user select a specific information source have become of great importance because of the developments in the field of information in the past decades. Information sources preferences of users have been affected by the development of computers and telecommunications technologies, the information explosion and the availability of a whole range of modern information technologies for the efficient use of information resource (Ayebelehin, 2012).

There is a number of information sources opened to the special target group for meeting informational needs they seek for. International Federation of Library Association [IFLA](2001) documented that special users are those potential users who for one reason or the other are unable to use normal library services. In its grouping, IFLA identify the people in remote and isolated areas the homebound, hospitalized patients, prisoners, factories and industrial workers inclusive, as people with special information needs. In this regards, the information resources library make available to cater for the special target users are identified as: microforms, transparencies, disc/ CD-ROM, picture or photograph, internet, digital satellite, slides,

projectors, video and audio-visual tapes, CCTV, smart view, computer with JAWS software among others. Information needs for PWSN are obtainable from some or any of the followings:

- Laws and Guidance from the U.S. Department of Education
- The Office of Special Education Programs (OSEP)
- The Individuals with Disabilities Education Act (IDEA)
- The Educators and Service Providers Resource page
- The IDEA Statute/Regulations and Policy Support pages
- The Department of Education's Office of Special Education Programs (OSEP)

It must be noted that IFLA document recommends application of combination of two or more of these resources to satisfy information needs of people with special needs even if it involve using mobile library service to revive and take care of them. Such may involve book van, book boat and trained personnel to administer those information resources.

Emerging Trends in Remodeling Academic libraries towards people with special needs

The views expressed about the future of electronic and print information resources have not absolved the challenges of the capacity of traditional libraries to cope with current demands for information provision for PWSN. It is becoming increasingly challenging that emerging trend and advances in electronic publishing have given rise to born digital resources, digitization, databases and web resources which is fast changing the information landscape. The emergence of e-library further exposed the weaknesses of some libraries as observed by Troll (2001) as they 'lack comprehensive and reliable documentation on shifting patterns in library operations and use which affects the strategic planning in libraries.' This has serious implications because such libraries 'cannot effectively prepare for the future or position themselves on campus, until they understand their changing roles in the current learning and research environment.' The changes precipitated by new technologies have further exposed traditional library's inability to cope with the current demand and its contributions to the missions of information provision for PWSN.

The non-print information resources such as photographs, video, cassettes, audio cassettes, projectors, microfiche, microfilms, telex and fax machines had been part of library resources and services that could be emphasized for use by PWSN. These did not cause print resources any concern. The current electronic information resources (internet, databases, web, CD ROM, electronic books and electronic journals) are the by-product of development of non-print resources which had existed in libraries. It is a further development as predicted that 'academic library of the future will use all kinds of carriers of knowledge and information, with each new means of communication enhancing and complementing the strengths of all the previous means. Remote enquiry services, web-based catalogue, dedicated web (library web site), FAQ Page, Interactive services, remote resources links, and links to other OPACs, online user instruction are some of the services available in e-resources environment.

In this context, the emergence of electronic resources should be seen as a blessing and an opportunity to enhance academic library resources and services to PWSN and its community. It is interesting to note that while some scholars see the advent of electronic resources as complementary, others believe it has the potentials of completely replacing it in the nearest future. Arua (2015) sees it as a 'shift from printed forms of information resources to electronic information materials.' The word 'shift' can be interpreted to mean or imply that electronic resources will replace the print resources if accepted because it could lead to better and quality materials for research, teaching and study by academic staff and students. However OCLC (2005) strongly disagrees with total shift to electronic resources because libraries were seen as been more traditionally credible in 'providing more accurate information than electronic resources while electronic resources were seen as been more reliable, effective, easy to use, convenient and fast.' The digital or electronic resources may offer easy access and appear to be more affordable than ownership of print resources, but Troll (2001) noted that it has risk of loss, except if archival records are created or migrate digital collection to new future formats.'

Challenging Implications for Remodelling Nigerian Academic Libraries

Academic libraries are facing challenges of adequacy of resources, technological obsolesce, new forms of education delivery, publishing and communication, skilled manpower and financial resources. Ray and Day (2018) observed that recent developments witnessed growing pressure on traditional role of academic library namely: falling library budgets; inflation in cost of printed materials; technological development; providing access rather than holding; rapid growth in student numbers; growing number of academic publications; growth in non-traditional students such as part time students 'matures students; changes in teaching and learning methods with "greater emphasis on student centred learning and shift from an original emphasis upon holding materials towards the importance of being a gateway to networked information,

It is because of these challenges that Daniel (2012) lamented on library services in educational institutions that 'poor quality library resource, have depressed quality of teaching, learning and resources especially for PWSN. In the light of this deplorable state of library resources and services, emerged electronic information resource. The consequences of this, as the author observed is traditional library being relegated to the background as first class source of information because information technology has set forth a revolution not only in how we store and transmit recorded knowledge, historical records, and a host of other kinds of communication but also in how we seek and gain access to these materials. Khan (2016) also observed that "the use of information technology in libraries, has being affecting all aspects of information acquisition, storage and transfer" adding that "the use of information technology for management and handling of information and data has grown significantly even in least developed countries, despite their economic constraints."

What roles are expected of Librarians to play?

Librarians should take advantage of the trust and play a leading role in the prevailing resources and services because there are competing providers outside the library system. Kattimani (2010) noted that the role of the Librarians is critical in creating quality awareness of the on-line information resources which include;

- i. Establishing a gateway to providers' servers for E-Journal;
- ii. Maintaining active and accurate links to journal titles.
- iii. Adding new journal titles.
- iv. Tracking titles that provide electronic access with print subscriptions.
- v. Ensuring coverage changes and title changes are up-to date
- vi. Need for formal library instruction /online information instruction
- vii. Updating URL changes.
- viii. Select databases that have relevance with user community.
- ix. Library should create awareness through e-mail alert system.
- x. Teach and promote use of advanced searching

Omotayo (2010) noted that it is important for academic libraries to make some of their services available on line and accessible remotely to meet the growing population of online patrons, people with special needs inclusive. Also, use of e-resources that can facilitate information provision for PWSN poses challenges to traditional libraries; Gbadamosi (2018) noted that "library users are getting more and more self-sufficient in accessing online resources which is alienating them from the library and staff. He advised that libraries need to engage patrons so that they continue to appreciate the capabilities of resources and services offered by academic libraries in support of their research. It is observed that the Internet has reduced user enquiries at the reference desks and is fast declining as reported by Daniel (2012) and Khan (2016) while other studies by Ayebelehin (2012) and Troll (2001) strongly argue that reference services and user education will still be required in digital age. Oladejo and Adelua (2012) identified some of the reasons that drive these changes as "information needed can be delivered from the most appropriate source to the user; the user can re-specify his or her needs dynamically; information is obtained when it is wanted, so it becomes "just in time" rather than "just in case" users select only the information needed to answer specific question and finally, information is only stored should the user wish." The advantages include;

- i. Available and accessible remotely outside the library
- ii. Faster in consulting than print indexes
- iii. Searches can be printed or saved to be repeated at a later date
- iv. Searching multiple files at a same time
- v. Use combination of search (keywords)

Conclusion

Digital information sources become essential for remodeling academic libraries for the advantage of persons with special needs. That is why more and more academic libraries are creating limitless digital bookshelves. As we move further in this digital visual information age, the need for academic libraries to develop global

information infrastructure and to digitize their information resources will increase sharply.

In spite of the potential difficulties, barriers and challenges already mentioned here, one thing is certain; that the technologies and the infrastructure are put in place now for us to experiment on a universal library. Major challenge envisaged here is the erratic nature of power supply in Nigeria which is a major problem. Digital 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 for once. Otherwise, it serves as a threat to the services of the libraries. In the same vein, finances (in terms of cost of generator, maintenance, diesel and the likes) and other facilities may discourage users if adequate care is not taken from the out – set.

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