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ESSENTIALS OF INTERNET TOWARDS INFORMATION SERVICE DELIVERY IN ACADEMIC LIBRARIES IN NIGERIA: A LITERATURE REVIEW

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Abstract
The purpose of this paper is to advance the contributions and innovations brought by the internet in the delivery of information in contemporary era. The paper is a reflective piece examining the internet service provision in academic libraries in Nigeria with the view to deliver quality information that would meet the needs of users. The paper argued that though the internet has brought innovations in the provision of information service delivery in academic libraries, gaps still exist in bridging the prevailing information delivery in the teaching, learning and research needs of the users. The paper maintained that the emergence of the internet in academic libraries has opened opportunities for fast, quick, and current information service provision to many users. Various literature reviewed shows that, the provision of the internet in academic libraries has become a platform for improving research, teaching, and learning process. The paper also emphasized contributions of internet in the delivery of services such as library administration, cataloguing and classification, collection development service, and reference services. However, the paper highlighted challenges such as poor internet connectivity, inadequate training, and high cost of internet facilities have brought set back towards internet development in many academic libraries in Nigeria. The paper concluded that the internet in academic libraries has become a panacea for facilitating access to quality education and intellectual development. The paper advocates that training of academic librarians to acquire in internet service skills should be given

priority as a way forward for effective information service delivery.
Keyword: *Internet, academic Library, Library Administration, Collection Development Services, references services*

Introduction

Academic libraries are institutions that are established to take care of the information needs of the students, lecturers and other members of the academic community (Rose, Eldridge & Chapin, 2015). Their mission is to provide quality information service and knowledge product both in print and electronic to resident community of users. Internet services in academic libraries are meant to bridge the prevailing information provision gaps in the teaching, learning and research needs of the users (Elizabeth & Ronke, 2015). The emergence of the internet has opened opportunities for academic librarians to quickly reaching out to many users at the same time (Adeyinka, Akanbi-Ademolake & Olufemi, 2017). Academic libraries in developed countries have utilized the services of the internet to facilitate teaching, learning and research which are the core mandate of academic institutions.

Internet platforms assist academic libraries to facilitate easy access to information beyond the traditional information service delivery (Abubakar & Adetimirin, 2015). This is because internet has become an important and reliable tool for collection, processing and dissemination of information in the library. Internet is one the greatest technological advancement which academic libraries have utilised all over the world to provide services with efficiency and reliability (Anunobi & Emezie (2016). Academic libraries embrace the internet because it provides electronic services such as mailing services, electronic online chats, group activities which has resulted in increased access to timely, accurate, relevant and current information. In the word of Echezona (2015, teaching and research in the tertiary institutions now demand the use of highly sophisticated internet facilities to keep abreast with current information in all fields of endeavour.

Academic libraries in Nigeria play a significant role in the provision of information resources that is aimed at promoting research, teaching and learning process. As such, Print medium is increasingly giving way to the electronic form of information resources, and the internet has transformed library services from building, size and physical collections to digital and

networked services (Echezona & Chigbu 2015).

Singh (2021) is of the view that publication in the internet provides a platforms for academic libraries to communicate and share library activities and operations to diverse users across the globe. As such, the information resources available in the Internet serve as a catalyst for improving research and interaction regardless of geographical limitation and space (Singh, 2020). However, while internet in developed countries is considered a significant phenomenon in providing effective library services, African countries are still facing challenges of internet in providing functional library services because of poor knowledge and competencies of librarians in acquiring internet skills and knowledge. Hence, the paper intends to create awareness on the essential of internet to the development of academic libraries in Nigeria.

Statement of the Problem

The emergence of the internet has assisted the academic libraries to bridge the prevailing information provision gaps in the teaching, learning and research needs of the users (Hussain, 2019). However the inability of some academic libraries to utilize the internet to deliver quality information service is still a challenge (Anyim, 2018). The central argument in various studies indicated that many developed countries around the world makes use of the internet to advance technological innovations which academic libraries have utilised to provide services with efficiency and reliability. On the contrary, the scenario is different in developing countries especially in Nigeria which find it difficult to keep pace with innovations of the internet to foster new thinking in information service delivery in the provision of library services (Raju, 2017; Hussain, 2019). **Therefore, this study became necessary to identify the** essential of internet towards information service deliver in academic libraries in Nigeria.

Methodology

This research used literature review as methodology. The purpose of adopting literature review is to convey to the readers the knowledge and ideas that have been established, gaps identified as well as strengths and weaknesses of previous studies. The literature review according to Jacobs and Walker (2014) is to show the readers the extent of previous studies and the connection of current and to fill the gap between previous and current studies. The use of literature review is to illustrate how the topic under investigation was

previously studied as well as identify the gaps in previous research discover and articulate relationships (similarities and contradictions) between previous research and the current study (Creswell 2014). Therefore, this paper identified relevant literature on essential of Internet towards information service deliver in academic libraries in Nigeria with the view to close gaps identified by the literature for effective information service delivery.

Internet in Academic Libraries

Academic libraries are facilities attached to tertiary institutions such as universities, polytechnic institutions, colleges of education, colleges of agriculture, colleges of technology and also research institutes (Abbas, 2014). Athanasius (2018) emphasizes that preservation and access to knowledge and information is the main mandate of academic libraries alongside supporting the mission of their parent institutions which is teaching, learning and research.

Academic libraries are at the forefront of providing information services to their respective communities which comprises of students, lecturers, and researchers in order to support their teaching, learning and research needs. Scholars have emphasizes on the crucial role of academic libraries in the development of research and scholarship in institutions of higher learning (Singh, 2017). It is on this premises that Ezechukwu and Ademole-Odeshi (2018) view academic libraries as the heart or nerve centres of institutions of higher learning, where all academic activities revolve.

The academic libraries of 21st century depend on internet technology for information service delivery. As Internet service evolves fast and continuously, the users' information needs change and have more expectations from librarians (Coldwell-Neilson, 2013). Academic librarians need to continuously update their technological skills in parallel with the digital technological changes that occur on a daily basis especially with innovations in Internet service across the globe. The developments in digital technologies and specifically the paradigm shift in library services with the advent of Information and Communication Technologies (ICTs), Internet services, electronic resources, digital collections and other digital technology services have led to advancement in digital literacy in academic libraries and among librarians (Atram, 2017). The role and position of librarians have dramatically changed (Anyim, 2018). Idiegbeyan-ose and Ilo (2013) observes that the rapid pace of development in the field of digital technology and the advent of

networked information services have prompted librarians to acquire knowledge of digital technologies to advance digital information delivery.

Academic libraries now experience global trend, which is characterize with a fundamental shift from traditional information environment to an electronic environment where emphasis is placed more on digital technologies in acquisition, organization, processing and communication with the use of digital resources such as electronic books, electronic journals as well as online databases (Azubuike & Azubuike, 2016).

Internet Innovation in Academic Libraries in Nigeria

The Internet has spread technological literacy and given people all over the world fast access to vast resources. The Internet links educational, commercial and non- profit organisation, the military as well as individuals (Anyim, 2018). Academic institutions are built on the philosophy of teaching, learning and research, which revolve around information production, transmission of ideas and knowledge. The internet has been an enabler of scholarship, facilitating acquisition, creation and ready access to digital content. In Nigeria, the academic library internet assists in providing efficient and current information service for their use.

This is facilitated through the internet technology software such as file protocol software, use of news group, discussion group, web directories, search engines and e-mail service. These can be harnessed for intellectual development and qualitative scholarly work. Chinnaraj and Tamilselvan, (2016) observed that the complexity of electronic resources in academic libraries has grown to ensure easy service delivery through online public access catalogue, online journals, database, electronic newspaper, online reference resources, open access journals, e-books, bibliographic database, surfing the world wide web, and other high sped multimedia. The usefulness of the internet foster effective research and learning as envisaged by Rahmah, (2015) and Raju (2017) that internet serve as an expert system, enhances effective reference resources, allow communication with any professional colleagues permits access to libraries and library catalogue and provide valuable information in electronic libraries around the world.

The introduction of Internet technology in academic libraries has contributed significantly to the ways libraries acquire process, manage and disseminate information. According to Ullah, (2015) and Okafor (2015) more and more documents are getting published electronically and Internet

resources are growing rapidly. Academic libraries of 21st century have had a clear and persuasive impact of Internet service in almost every area of its operations. In the past two decades, there have been various initiatives from government agencies, non-governmental organizations and individuals towards library digitization in Nigeria.

For example, the Nigerian government initiated the Management Information System (MIS) and Nigerian Universities' Network Modules (NUNET) programmes to automate and digitize library collections (Ayoku and Okafor, 2015). This effort triggered the new mode of cataloguing, classification, acquisition, circulation, reference and other services in many academic libraries particularly the university libraries in Nigeria.

The National Universities Commission also contributed the Virtual Library Project through funding and provision of digital resources and services, such as computers, electronic resources, and smartphones as well as Internet services in higher institutions' libraries across the country (Ukwoma and Iwundu, 2016; National Universities Commission, 2017). The National Communication Commission (NCC) and National Information Technology Development Agency (NITDA) supported digital libraries in thirty three universities across the country to boost research and learning capacity through the provisions of computers, laptops, servers, Online Public Access Catalogue (OPAC)/Web OPAC and DVD (Ogochukwu, 2015; Premium Times, 2019).

According to Annunobi and Emerie (2016), the Mobile Telephone Network (MTN) supported the university libraries in Nigeria through the provision of digital technology, computer hardware, software, the Internet facilities, cell phones, Personal Digital Assistant (PDAs) and other digital devices to boost academic and research activities.

Today, all sorts of library services, from membership registration to document delivery can be offered through the Internet. These contributions are quite enormous, as such; Internet technology has become an indispensable tool in modern academic libraries. Nobody can doubt the fact that the world is experiencing information explosion as a result of internet. The amount of information that comes up every day is so vast that it is becoming increasingly difficult, if not impossible to keep in touch with all current events no matter how current and active a library is.

The need for devising other means that human ability can effectively handle is internet because of the multifarious information that present day libraries generate. It is on this basis that Raju (2014) and Ron (2015) noted that

the Internet technology allows multi-dimensional combination of information resources of text, graphics, video, audio, sound, animation and virtual reality. As such, the transformation in the library operation and the ways resources and services are viewed have created a new and innovative technology in entire library system.

The Contribution of the Internet to Academic Libraries in Nigeria

The Internet provides links to various library sites, specializing in almost every topic and they can be accessed directly from any part of the world. Gbaje and Okojie (2011) argued that the telecommunication and information technology policies of the government have resulted in the emergence of computers and the Internet access within academic libraries in Nigeria. Ibrahim (2015) on the other hand maintained that many academic libraries are currently providing their Internet services through Electronic mail, World Wide Web, File Transfer Protocol (FTP) and .Mail List. These services according to Anyim (2018) are already been utilised by many higher institution libraries to facilitate easy access to knowledge, research development and intellectual competition with speed, accuracy and ease. Many academic libraries in Nigeria have created their website to provide information about their vision, mission, objectives, collections, services, registration and administration. **Literature identifies the most common services in which Internet contributes to effective information delivery of academic libraries as follows:**

Internet in Library Administration

Academic librarians in higher institution libraries, like managers in other professions are responsible for planning, organizing, directing and controlling physical, financial and human resources in the libraries. Their domain according to Athanasius (2018) covers a number of functional areas such as collection development and technical services, reference services, interlibrary loan, document delivery and library automation for their libraries. Atram (2017) observed that the Internet has made a tremendous impact on administration of higher institution libraries in Nigeria in the effective management of both the human and material resources, as well as assist in achieving the mission of the library. The primary aimed of using the Internet in administration of higher institution libraries according to Anyim (2018) is to strive to achieve the objectives set by the institution. Thus, the set objective is

achieved by organizing the human and material resources, in the libraries, its internal operations, staff recruitment and development, budgeting, fund raising and other related issues are handled effectively and efficiently with the contribution of the internet services.

Internet in Collection Development Services

The Internet in higher institution libraries contribute towards collection development policies and practices in academic libraries. The emergence of the Internet provides more access to information than ever before. Azubuike and Azubuike (2016) asserted that a lot of electronic publication abound to which library can subscribe to in addition to converting some of the text into digital format. The researcher further stated that the internet has enable libraries to develop hybrid collection into digital contents which can be accessed by the use of computers and other ICT devices. Similarly, Hallam (2016) emphasized that the internet has enabled modern academic libraries with small budget to rationalize their collection, as well as provide high quality services to their clients. The Internet has brought opportunities for academic libraries to meet it objectives of promoting teaching, learning, research and academic development. Singh (2020) examined the contributions of the internet in collection development areas of the higher institution libraries in three ways:

1. Helped to select books and other information resources as well as evaluate other collections of the library
2. The integration of traditional collection development functions with the Internet in quick processes of information resources; and
3. Helped to shaped on the processing of information resources with ease.

Internet in Cataloguing and Classification

The development of the internet in the higher institution libraries have tremendously shaped cataloguing and classification activities. Since the Internet enables faster communications and text sharing, it is used as a tool for both cataloguing and classification works. Researchers like Badawi (2017) and Okojie (2018) have acknowledged the impact of the internet service in cataloguing and classification because it has made bibliographic control easier. Also, **Hussain (2019)** argued that cataloguing and classification was one of the area that were first impacted by ICT and by extension the internet because of the large amount of cataloguing data available and the desirability of having

consistent cataloguing information in all libraries. This concerned led to the development of Machine Readable cataloguing (MARC) format of the Library of Congress created by the International Standard for Bibliographic Description (ISBD).

Okojie (2018) on the other hand maintained that the contribution of the internet on cataloguing and classification in higher institution libraries came as a result of the development of online technology. According to this author online technology combines the convergence of three technologies namely: The development of more efficient information storage and retrieval software, efficient telecommunication networks and; efficient method of storage of large machines readable records through personal computers. The development of Online Public Access Catalogue has greatly revolutionized the Cataloguing and Classification activities in the many higher institution libraries. Nwalo (2016) argued that the OPAC is a database consisting of the bibliographic records that describe the materials held by a library accessible via public terminals or workstation. Most OPAC are searchable by Author, Title, Subject, and keywords and allows users to print, download or export records to an e-mail account.

Badawi (2017) also affirmed that the Online Public Access Catalogue (OPAC) is the newest and most sophisticated form of catalogue. Catalogue records prepared according to the same rules and standard, but card catalogues are loaded into a computer memory and displayed on monitors connected to the computers. The rapidly increasing cost of microcomputers makes the OPAC a storage contender to become the computer catalogue of the future libraries on small budget. Okorie and Ekere (2018) justified that changes in the cataloguing process, such as the development of bibliographic utilities and the acceptance of AACR2, have had a major impact on library catalogue with online computer catalogue. The impact of these changes according to Okafor (2015) is most prominent in libraries all over Europe, Asia and the United State of America. Despites these developments and innovation, in Nigerian academic libraries, for other African countries, card catalogues

remained the most common type of catalogue for the next foreseeable years.

Internet in Reference Service

The development of the Internet services in reference services of the academic libraries have provided opportunity for online reference services base on the type of references enquiries, assistance provided and guidance rendered. Talking emphatically about the Internet in reference services, Odu and Omosigho (2016) maintained that the internet services have contributed in reference services of higher institution libraries in the areas of answering of reference questions, assisting users to locate information items, enhance Inter-library loan service and promote selective dissemination of information (SDI). In spite of the enormous contributions by internet, academic libraries are without challenges.

Challenges of Internet in Academic Libraries in Nigeria

The Internet offers a wide range of free, professional tools that are used by academic libraries for a variety of purposes. However, literature from Africa indicates that librarians are facing serious challenges in using the Internet to provide library services because they have skills in traditional knowledge than in Internet skills and competencies (Kamba, 2011 and Echezona, 2015). Some of the challenges identified in the literature are as follows:

Poor Internet Skills and Competencies: Many academic librarians in developing countries have poor internet skills and knowledge. Bhatti and Nadeem (2014) state that librarians in developing countries have poor Internet competencies especially in password protection of documents, mail-merging, setting signature, setting holiday/vacation rules, filtering, creating folders, blocking an address, customizing email, spamming emails, tagging an email, hanging paragraphs, bookmarking, referencing, footnotes and page notes, drop-cap and watermarking. Internet skills and competencies are important for librarians in entire library systems and sub systems. Academic libraries have developed Internet services such as email accounts for its patrons to make inquiries electronically. This implies that, in addition to the usefulness of the

skill for service provision, librarians also need these skills to be able to effectively instruct users on how to use it.

Insufficient Internet Knowledge: Some academic librarians lack knowledge of Internet search engines and directories, other than Google and Yahoo, respectively. Gbaje and Ukachi (2011) stress that poor knowledge of how to evaluate and catalogue e-resources using the Internet is still a challenge. Internet knowledge according to Rodriguez (2015) involves the ability to search the Web in an extension of the bibliographic instruction sessions by librarians. It is important that they are sufficiently equipped for this service. Librarians are also expected to facilitate skilled information retrieval, intervene between the user and the information sources to help users evaluate what they retrieve and assume greater responsibility for learning and research outcomes. The need for librarians to possess a high level of knowledge in web and database searching, and information evaluation is desirable for effective library services. Librarians should acquire knowledge in web-based and electronic database to enhance search techniques to remote or Web-enthralled users. In addition, academic librarians should develop knowledge of database management and be familiar with Web design applications. Knowledge of database management creation and maintenance are crucial to librarians for successful management and use of information.

Similarly, poor training and re-training result in poor skills and competencies. Uwaifo and Azonobi (2014) stress that poor Internet competencies resulted from lack of adequate training of librarians. Inadequate skills and competencies have hindered the use of the Internet and other digital resources in academic libraries. Many academic librarians in Africa find it difficult to integrate Internet skills with the traditional method of information service delivery due to poor training (Rose, Eldridge & Chapin, 2015). As such, many librarians are not willing to embrace the new technology in the provision of information services.

Academic librarians should develop skills and ability to use library software, programming and assist in online searching. They also need training in using built-in forms and reports in a database; exploring the software and learning new commands; understanding definitions, programme guidelines

and sources of data; developing clear channels of communication; knowing how to install files and import and export of data.

Fernandez and Buenrostro (2015) maintain that librarians' poor training in backup files; creating new folders; email files; downloading files from email or websites; understanding windows concepts, including how to explore folders and files, and how to create or remove shortcuts from the desktop and/or the start menu; and understanding database design concepts could lead to poor library services.

Poor Attitude and Perceptions towards Internet: Some academic librarians in developing countries are not competent to take on the challenging role of the 21st century information service delivery. They perceive Internet as a threat to their jobs. They are also averse to technology and perceive the Internet to be taking over library operations. This being the case, they are reluctant to embrace new technology. Abubakar and Adetimirin (2015) assert that many librarians lack confidence in the face of increasing information technology. This slows service delivery and retards productivity.

Conclusion

Internet competencies are an essential for librarians to provide effective library services. The internet has become a standard tool which developed countries have adopted in their libraries to access, network and provide effective information services to users. The internet has also become a platform that assists librarians to facilitate easy access to information beyond the traditional information service delivery in academic libraries. The twenty first century librarians have transformed library service into a digital and virtual environment where books and journals are now available as e-books and e-journals. These innovations require librarians to attain Internet knowledge, skills and competencies. The ideal is for librarians to acquire Internet competencies in developing countries as a vital tool in providing effective information services to academic library users.

Way forward

i. There should be a massive injection of funds from the government and non-governmental agencies for the provision of the Internet facilities in academic libraries so as to improve on research and learning process.
ii. Academic librarians and other information professionals must be involved in the training and retraining in the knowledge of the Internet for effective information service delivery.
iii. The problem of epileptic power supply and poor telecommunication should be doggedly addressed by the Nigerian government.

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