

## **USE OF ELECTRONIC INFORMATION RESOURCES FOR IMPROVING LIBRARY SERVICES IN UNIVERSITY LIBRARIES**

**By**

**OZONWU, CHARLES UGOCHUKWU**

### **Abstract**

The study was aimed at finding out the use of electronic information resources for improving library services in university libraries. The use of Electronic Information Resource Services in any academic institution, most especially in human life cannot be overemphasized in this 21<sup>st</sup> century as they are technological advancement which has increased the role of information as a result of social progress and vigorous development in science and technology. However, the new and emerging technology changed the traditional process of improving learning, teaching, research and the way education is managed. The pace of change brought by the use of electronic information resources has significantly improved the way library clientele live, work and research in university community. The study seeks to determine what the use of these electronic information resources in University libraries will mean to the patron community. The study further established some uses, benefits and challenges of electronic information resources in the institution. It was recommended that the library managers should make available alternative power supply; this will enable the students to enjoy library services. The internet server should also be upgraded so as to enable easy accessibility, and there is need for periodic training for library users on how to access and be conversant with the available electronic information resources in the Library.

### **Introduction**

Electronic information resources refer to those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile devices. They may either be accessed remotely via the internet or locally (IFLA, 2012). Some of the resources include, e-books, e-databases, electronic journals, CD-ROMs, Electronic databases among others; like multimedia products and numerical, graphical or time based, as a commercially available title that has been published with an aim of improving library services. These may be delivered on CD ROM, on tape via internet and so on. Over the past few years, a number of techniques about

related standards have been developed which allow documents to be created and distributed in electronic form. The electronic information resource on magnetic and optical media has a vast impact on the collections and services of university libraries.

It is the main aim of University Libraries to support teaching, learning and research in a consistent way which supports the mission and goals of the institutions they belong to. However, the diversity of information needs by library clients, in terms of quality, depth and currency makes it difficult for libraries to adequately fulfill user needs through traditional information sources alone ( [www.webpages.uidaho.edu](http://www.webpages.uidaho.edu) ). Electronic information resources form an integral part of libraries in assisting the users in learning, teaching and research. So it's the responsibility of libraries to keep pace with technological developments and cope up with the users demand for electronic information services (Kumar & Singh, 2011).

A university library is known as the heart of the university; it works like an axis of all educational and research activities in all disciplines. It is the academic nerve centre of any university. Agboola and Bamigboye (2011), maintained that the quality and strength of any educational program depends on the library; not the library as a magnificent building but the use of it. It is in view of the above background that this study is designed to examine the use of electronic information resources for improving library services in university libraries.

### **Electronic Resources for Improving Library Services**

University libraries have been slowly building robust electronic information resources collections to enhance and improve their services. There have been numerous studies examining utilization of different types of electronic information resources in Universities by clientele to

satisfy their information needs. Electronic Information Resources According to International Federation of Library Associations and Institutions (IFLA, 2012) refer to those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device. They may either be accessed remotely via the Internet or locally. According to Library of Congress (2008), an electronic resource is any work encoded and made available for access through the use of a computers. Electronic resources refer to those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device. They may either be accessed remotely via the Internet or locally. It includes electronic data available by remote access and direct access (fixed media). In other words: Remote access (electronic resources) refers to the use of electronic resources via computer networks. The twentieth century was shaped by sweeping changes in communication technologies.

Electronic resources have become an integral part of the modern libraries. Databases are replacing the huge amounts of inventories. Resource sharing has become a necessary requirement and is easier through modern techniques. The previously required basic skills have also been of lesser primary requisites. Information resources could referred to as materials consulted for knowledge about a topic, a theme, an event, a date, a number, a place or even a ward (Aina, 2002). Other types of information resources are reference sources, journals, official publications, internet sources, non-book materials like cartographic materials, sound recording motion pictures. All these information sources are stored in the library to provide information and users need (Obi, 2007).

Electronic information resources can be difficult to navigate, and many are developed on an infrastructure that is not intuitive to those conducting research. Cothran (2011) strongly

argues for librarians to focus on improving the usability and accessibility of library resources by linking library databases and Google Scholar, for improving library services through Google Scholar usage. Without some intervention with a library trained professional, clientele may find obstacles accessing library content

Electronic Information resources support and materials must be embedded within the curriculum to support student learning and to be recognized and prioritized in academic plans. As noted by Khan and Qutab (2016), the librarians must understand that users always know their information needs, but they do not know where to find these information resources services. Therefore the Librarians are required to create materials that students find supportive, useful, and that students will value for their research tasks. When patron communities cannot locate or access the material they need, they can become disenfranchised. Library clienteles tend to use specific journals because of familiarity.

By understanding how online library users make meaning about their experiences with the library and the library's electronic information resources, librarians and academic affairs personnel can better promote online library users' learning. If library clienteles do not believe that an electronic information resource is valuable, they will not use that resource. Wu and Chen (2012) found library clienteles often use library electronic information resources and that users recognize library resources are important for their research works. Patrons' community can be confused about how to find information and what resources may be needed to complete their work; the electronic information resource library provides library users with more than subscription databases, books, and serials. Resources that explore topics, present information literacy in a new way, or support an assignment can be perceived as valuable to library users in

their research process. Additional works by Gilbert, Knutson, and Gilbert (2012), Ouellette (2011), and Liu and Luo (2011) indicated clientele perceptions of the library resources impacts student learning, collection development, and suggested patterns related to how users engage and perceive resources. One of the ways the library takes an active role is to assess the unique needs of their patron community.

### **Types of Electronic Information Resources**

According to Jamali (2005), most frequently encountered types of electronic resources are: Electronic journals, Electronic books, Electronic databases, CD-ROMs, ETD's (Electronic Theses and Dissertation), Internet Resources, Electronic Mail Data, Digital library, OPAC Institutional Repository System, etc.

**Electronic Journals:** The advent of information and communication technology (ICT) has played a pivotal role in transferring the conventional library into a digital library. The electronic journals occupy a major share in electronic publishing and they are fast becoming the preferred format for information dissemination. Electronic journals are full text journals that are accessible via internet or intranet, which has made it easier for libraries and other institutions to place their collections on the internet for the patrons to access them. According to Jones, (2009) electronic journals are available electronically via a computer or a computer network that they may or may not be published in some other physical medium, but that are not CD-ROM.

**Electronic Books:** E-books are exactly like print or paper books except that they are bound electronically. An electronic book is a portable hardware and software system that can display large quantity of readable textual information to the user and let the user navigate through this

information. An electronic book is digital reading materials that a user can view on a desktop or notebook personal computer with a large storage capacity and ability to download new titles via a network connection. According to Bernard (2009), emphasize on the variety of opportunities that exist for enhancing library services for clientele by combining electronic text and electronic reading devices. Electronic books has made some number of service possibilities have been noted for pseudo-circulating electronic book services including on demand access, timely inter-library and inter-campus loans.

**Electronic Databases:** An electronic database is an organized, integrated and interrelated collection of computer based data, records, files or information, accessible from a network, including from the Internet. An electronic database is a comprehensive collection of information in electronic form and organized for quick retrieval which may be the database of either full-text documents or citations and abstracts. These are large collections of machine-readable data that are maintained by commercial agencies and are accessed via communication lines. Many libraries subscribe to them for easy access and use of current information. According to INFLIBNET Centre the term “database” is used to refer to a collection of records which may have numeric, textual or image based data. If it is accessible via WWW, it is known as online database. Before the advent of Internet, these online databases were available as CD-ROM databases.

**CD-ROM:** CD is one of the most useful, important and reliable media to store information in electronic form. In the digital age, a paperless library has already come into existence with the availability of CD-ROM databases; CD-ROM has an indispensable role to play in the

dissemination of electronic information and it has already found a special place in the rapidly growing digital libraries. Compact Disk Read Only Memory can be used to store computer programmes, databases, books, video, pictures and sound. The electronic computer together with its peripheral equipment provides an electromechanical capability for modifying and processing stored information to produce vast new stores of information.

When searching an online reference service the method of charging and the difficulty of the user interface require a mediated search where a librarian performs searching on behalf of the library patron. With CD-ROM products, however, libraries often choose to have their patrons use the products directly. CD-ROM products offer a friendlier user interface than do the online database services, and there is no minutely access charge that requires the efficiency of a trained, professional database searcher. Rather, patrons can enter their own search strategies, browse through the results, refine the search, enter new searches and selectively print the results—all without the pressure of online charges according to Bett, (2006, et al).

**Electronic Theses and Dissertations:** An electron thesis/dissertation is produced as an electronic document/set of electronic document. The electronic documents that make up an ETD can be created using any popular word processing software. Like a paper-based thesis/dissertation an ETD illustrates why the work was done, how the research relates to earlier work, what research techniques were used, and what was found, followed by an interpretation and discussion of the results. Furthermore, it may describe why the work was done, how the research relates to previous work as recorded in the literature, the research methods used, the results and the interpretation and discussion of the result and a summary with conclusions.

**Internet Resources:** the internet and its World Wide Web (WWW) have given a paradigm shift to information management. The information available on net is increasing rapidly and the task of providing relevant information to patrons is gaining paramount importance in all types of libraries. Due to impact of internet, there is a swift migration from offline to online, as web is becoming a popular user interface for providing access to remote and frequently update resources. It is important to realize the distinction between the internet which is the system of interconnected computers, and Internet services which are what people use the internet for, and include the applications such as e-mail and world wide web browsers. Connecting to internet allows access to a number of different services, the most popular services are e-mail, newsgroup and the World Wide Web (WWW).

**Electronic Mail:** Electronic mail (e-mail) is one way of sending information from one computer to another. It works in the same way as posting a letter “sail mail” each network on the internet has a unique identifier, and each person on the network also has a unique username; the combination of these two make up their e-mail address and are unique worldwide.

**Digital Libraries:** The rapid advances in information processing, storage and communication technologies have revolutionized the method by which institutional libraries disseminate electronic information resources to her clientele. Digital libraries basically store materials in electronic format and manipulate large collection of those materials effectively. According to (Srivastav and Sexena 2004) When the information is organized, processed and transmitted by means of digital devices, the concept of digital library emerges. Digital library means adoption and maintenance of information in digital format. Digitization of the documents of the library, which are in print form and online access to the external digitized information with the provision



of users' identification and password to the users. Digital libraries are the repositories of electronic texts, images, and other materials, which are generally found on the internet, although large collection of remotely accessed CD-ROMs could also be considered a digital library.

**Online Public Access Catalogue (OPAC):** Online public access catalogue is a term used to describe any type of computerized library catalogue. Online public access catalogues allows in providing the flexibility to:

- a. Find out what the library has to offer
- b. Check the status of an item (checked out , on shelf, on hold)
- c. Reserve an item
- d. Look up community information
- e. Use CD ROM databases such as indexes and encyclopedias

According to Gorman (2007) who characterized an online catalogue as an “integrationist” and defined it as bibliographic control system that allows access by means of access points, thus OPAC is a systematic record of the holding of a collection. It is an access tool and resource guide to the collection of a library or libraries which provides bibliographic data in machine-readable form, facilitates search interactively on computer terminal by a user. A library's card catalogue allows a search by title, author and subject; the same information is available online with some subject expansion.

**Institutional Repository System:** An institutional repository is an online locus for collecting, preserving, and disseminating in digital format, the intellectual output of an institution, particularly a research institution. For university, this would include materials such as research journal articles, before (preprint) and after (post-prints) undergoing peer review, and digital

versions of theses and dissertations, but it might also include other digital assets generated by normal academic life, such as administrative documents, course notes or learning objects.

### **Use of Electronic Information Resources in University libraries**

The integration of electronic information resources in university libraries is beneficial as they are remotely accessible and available around the clock. Electronic information resources enable academic libraries to benefit from shared storage and easier integration to Virtual Learning Environments (VLEs). While the majority of the university library clientele are now using electronic resources, many are relying on them as a primary source of information (Ismail & Ngah, 2005). In order for libraries to make a great impact of their services on their users, it is necessary for each library management to aim at managing the library accurately and by providing timely information for all library users. This can be achieved by acquiring both relevant library resources in electronic and book materials through donations from organizations and alumni. Frankly the breadth and variety of what is available in electronic format is overwhelming. These electronic resources includes full text journal, newspapers, company information, e-books, dictionaries, encyclopedias, economic data, digital images, industry profiles, market research, and career information.

The electronic information resources are also known as online information resources covering bibliographic databases, electronic reference books, search engines for full text books, and digital collections of data. They include both digital materials which have been produced directly online. In one study, Kumar (2015) examine the usage of electronic information resources by university libraries, it reveals that the use of electronic information resources has tremendous impact on the academic performances of the patron community. For example-e-

journals, databases, and print resources which have been scanned and digitized will be utilized by library users. The electronic resources, e-journals, online databases are not “owned” by the libraries as they own the print material. Ownership of electronic resources lies with the providers of these resources. Access to the electronic resources may be free via Internet or may be available for a fee. Some of the examples of e- resources are digital library, electronic books, electronic database, electronic journals or articles published in them. These may be accessed on Internet connected devices such as computers, tablets, smart phones, etc.

### Advantages of Electronic Information Resources

The following are the advantages of electronic resources according to lisbnetwork.com:

- **Multi access:** A networked product can provide multi access at multiple points in time (24 hours a day. 7 days a week) and to multiple simultaneous users.
- **Speed:** An electronic resource is lot quicker to browse or search, to extract information from, and to integrate that information into other material and to cross-search or reference between different publications.
- **Functionality:** Electronic resource will allow the user to approach the publications to analyze its content in new ways by click of the mouse on screen mood.
- **Content:** The electronic resources can contain a vast amount of information, but more importantly the material can consist of mixed media i.e. images, video, audio, animation which could not be replaced in print.

Apart from the above, some other advantages of electronic information resources may include: international reach, unlimited capabilities, reduced cost, convenience, search-ability and linking.

### **Challenges in the Use of Electronic Information Resources**

While the use of electronic information resources on improving library services in both developed and developing countries is well recognized, earlier studies and recent research, however reveal that electronic information resources are under utilized in many universities libraries because of various reasons. Ndinoshiho (2010) found that many electronic information resources were substantially underutilized by library clientele, the main barriers identified were the; shortage of computers, unreliable internet connections and lack of skills. Among the problems cited were; not sufficiently familiar with electronic information resources, unavailability of materials that the clienteles wanted to use, technical problems and difficulty to read from the screen among other things (Adeniran, 2013).

Also Librarians stated that most of the complaints they received from users on the use of electronic information resources were to do with platform breakdowns, difficulties in accessing resources off-campus, and discontinued resources. Some persistent challenges, namely bandwidth and funding, continue to affect electronic resources usage.

The high cost of bandwidth remains a major challenge that still hampers the full utilization of electronic information resources and when users do literature searches and/or try to download articles but find the Internet slow, some of them give up, and this affects usage. Ali (2005) found that lack of metadata terminals and trained staff are the major reasons that would

discourage users from accessing the electronic information resource services. Also substantial barriers to electronic resources access and use include a lack of research culture.

### **Recommendations**

1. The library managers should make available alternative power supply; this will enable the students to enjoy library services.
2. The internet server should also be upgraded so as to enable easy accessibility.
3. There is need for periodic training for library users on how to access and be conversant with the available electronic information resources in the Library. User training is essential for the better use of electronic information resources in the library since a good number of users are searching electronic literature on their own. Electronic resources users should be taught about advanced search strategies and the use of controlled vocabulary to make electronic search process much easier.
4. The university management should provide funds for subscription to more electronic primary and secondary sources.
5. The library should also identify the non-users of electronic information resources and proper steps should be taken to convert them into potential users of the resources.
6. An electronic document delivery should also be introduced into the library at the earliest opportunity. Moreover, instead of expecting users to accept whatever exists in the market, the right perspective is to know and provide whatever electronic resources suits users under their respective circumstances (Kebede 2002). The library management therefore needs to conduct user study programs to know more about electronic resource needs of users.

## Conclusion

The field of library and information science is dramatically changing scenario involving incorporation of digital media in the library systems and making the same accessible globally through the use of electronic information resources. The uses of electronic information resources in university libraries are very useful for users and library professionals for speeding up the accessing and maintaining of the library information as well as the automation of the libraries. Increasing demands from library users for access to more and more information are accelerating in the digital libraries era. Computers are increasingly used for providing information; librarian and other information professionals must familiarize themselves with the latest technological development in this field of electronic information resources. Electronic information resources and services are thus going to assume increasing relevance sooner than later.

## References

- Afolabi, M. O. (2007), Paper presented at Electronic Information for libraries Network (eIFL.net) workshop Obafemi Awolo University ,Ile-Ife,Nigeria October
- Ali, Naushad (2005). The use of electronic resources at IIT Delhi Library; a study of search behaviours. *The Electronic Library* Vol.23 no. 6: 691 – 700
- Ani, Okon E. and Ahiauzu, B. (2008). *Towards effective development of electronic information resources in Nigerian university Libraries*. *Library management*, 29 (6/7), 504-514.
- Barnard, S.B. (2009) “libraries and e-books; Opportunities and issues” *Future of Print Media Journal*(Spring),(Online).RetrievedAugust10,2021.  
<http://www.futureprint.kent.edu/articles/bamard>
- Bozimo, D. D. (2007), Paper presented at the eIFL.Net workshop on capacity Building, University of Jos Nigeria.
- Dadzie, P. S. (2005). Electronic Resources: access and usage at Ashesi University College. *Campus – wide Information Systems* 22(5) Available at: <http://www.emeraldinsight.com>. Accessed on july, 2021.

- Faborade, M. O. (2007), Paper presented at eIFL.Net workshop, University, Ill-Ife, Nigeria.
- Gorman, Micheal (2007). Exploring the future of cataloguing and metadata in libraries.
- IFLA (2012). Key Issues for e-Resources Collection Development: A Guide for Libraries IFLA.
- Ismail, R and Awang Ngah. Z (2005), the Pattern of e book use amongst Undergraduates in Malasia: a case of know is to use, Malaysian Journal of Library and Information Science, Vol. 10 No. 2, p23
- Jamali, R. H. (2005). The use and users of scholarly e-journal a review of log analysis studies. *Asia Library Journal of Information Management* 57(6), 554-571.
- Jones, W (2006). Preface to the special issue on e-serials: publisher, libraries, users and standards (part1).The serial librarian vol. 33(1-2), 2006. pp.xv-xvi. <https://www.haworthpress.com/store/articleAbstract.asp?sid> Accessed August 10, 2021.
- Kumar, M (2015). Academic Libraries in electronic environment: Paradigm shift. A paper presented at the International Conference on Academic Libraries (ICAL) pp. 105.
- Ndinoshiho, J.M (2010) The use of Electronic Information Services by Undergraduates students at the University of Namibia Campus: a descriptive study; information department, Vol26 No.1, p57-65.
- Shuling, W. (2007). Investigating and analysis of current use of electronic resources in university libraries. *Library Management* 28 (1/2), 72-88. <http://www.emeraldinsight.com> (accessed 1<sup>st</sup> july 2021)
- Srivastava Rachna and Saxena Shalini (2004): Digital Libraries Dream or Reality? In SRELS Journal of Information and management. Vol.41 (4) Dec. 2004. [www.lisbnetwork.com](http://www.lisbnetwork.com) accessed August 10, 2021