



Impact of Electronic Publishing on Special Libraries Collection Development

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Abstract

The Information and Communication Technology innovation has changed the traditional role of libraries as well as traditional process of collection development. Libraries are witnessing a shifting of paradigm from print to electronic publications. This paper explores the impact electronic publishing has on collection development in special libraries. Through critical analysis of literature, the paper gave an in-depth evaluation of the concepts of electronic publishing and collection development. The paper discusses collection development policies, taking into consideration of its importance in selection of information materials for acquisition. Challenges to the use of electronic publishing were discussed, among which are, erratic power supply, technological obsolescence, financial constraints, poor maintenance culture, non-availability of the facility to download open access publications and absence of a national repository of electronic publications and legislative provisions. The benefits of electronic publishing were also highlighted. The paper concludes that the process of the conventional collection development is not very much different from that of the electronic publications, that the normal process of collection development policy, recommendation of information resources, selection, acquisition, conservation and preservation is followed and that to ensure longer life of electronic publication, a continuous expansion and upgrading of information storage and access techniques and technology is important.

Keywords: *Electronic publishing; Collection development; Information; Special libraries, Network resources.*

1.1 Introduction

Modern technologies have transformed the process of publishing and distribution of information. It is becoming a vital component in the overall services and operations of library and information centers. Application of Internet and network resources is changing the traditional library functions

and services. It has helped in information generation, processing, preservation, access, storage, retrieval and information dissemination. Information explosion coupled with improvements in computing and telecommunications have resulted in the production of electronic publications.

In special libraries, modern

technologies are applied to provide easy access to current information and convenient information exchange among patrons. Electronic publishing is a new arm of the publishing world where literature is published, not in print form with physical pages, but in digital form where it can be accessed by a computer. It involves the digital publication of e-book, journals, and the development of digital libraries and catalogues (Al-Shboul, 2016; Velmurugan and Natarajan, 2015). Electronic publishing is a process for production of typeset-quality documents containing text, graphics, pictures, tables, equations, etc. In general, it is used to mean any information source published in electronic form (Maheswarappa and Tadasa, 1997). Electronic publication includes sources like magnetic tapes, videodiscs and databases. Depending on the contents of a source, it can be either e-books, e-journals, full-text (aggregated) databases, indexing and abstracting databases, reference databases (biographies, dictionaries, directories, encyclopaedias, etc.), numeric and statistical databases, e-images, e-audio/visual resources (Puspita, 2015).

Libraries has been associated with the collection, organization, storage and dissemination of recorded information to meet the extensive and changing needs of people for information, knowledge and recreation (Abah, 2011; Sisimwo, 2016). A Special library is one of the types of libraries that require the application of new technologies. Special library is a library maintained by corporation, association, government agency or any other group. It can also be defined as a specialized or departmental collection within a library for the organisation and dissemination of information and primarily offering services to a specialized clientele through the use of varied media and methods (Madu and Adeniran, 2005). Any special library that aims to satisfy the information needs of its users

must take great care with the development and management of its collection. To attract the users and to provide better services to them, special libraries should develop digital resources along with print materials.

Library collection is the sum total of library materials that make up the holding of particular library. Planned and systematic selection and acquisition of these materials, keeping in view the current and future needs of an institution constitutes collection development, which is one of the basics for any kind of library. Collection development is thus an important function in library. According to Scott-Emuakpo (2002), collection development relates to the selection and acquisition of materials for an expanding collection and the decisions on the material to be included in that collection.

Collection development is influenced by technology both as a means for information creation, access, and delivery. The process of generating, storing and publishing information has changed over the years, which is publicized in the growth in number and variety of sources. The advent of information communication technologies heralded the emergence of electronic publications which has had a tremendous and significant influence on libraries in general and collection development in particular. One of the ways, in which special libraries can respond, is to incorporate these in collection development program. The discussion in the chapter will focus on the impact electronic publishing has on collection development and management in special libraries, its benefits and challenges.

2.1 Review of Related Literature

2.1 Concept of Electronic Publishing

Electronic publishing is non-print material that is produced, broadcasted, distributed, or disseminated digitally through a computer. According to Koganuramath,

Jange and Angadi (2014) electronic publishing is the process for production of typeset quality documents containing texts, graphics, pictures, tables, equations. It can be represented as electronic technology, Computer technology, Communication technology and Publishing. Also, Kumber, and Hadagali (2005) stated that electronic publishing is the use of computer technology in publishing or distributing information.

Electronic publishing has undoubtedly affected all stakeholders' interrelationships in the scholarly publishing value chain pressuring publishers in their value delivery to libraries and users. It has enabled a powerful function for libraries and it has challenged market forces and actors which have orchestrated how science has been communicated until recently (Souto, 2007).

It is important to note that not all electronic publications are scholarly. Rather some electronic publications include opinions, views, discussions and other types of information that do not meet the criteria of scholarship (Al-Shboul, 2016). According to Schamber (1996) electronic technologies and collection development are two of the top concerns in Library and Information Science today. Many libraries have their catalogue of books and non-books in the web. These publications have emerged as global information highways and are being added to library collections at exponential rates. Libraries are doing extensive work to make electronic publications available to their users at their desktops (Vasishta, 2012).

2.2 Collection Development

Collection development is the total of activities that lead to building up a total collection of the library. It involves monitoring, weeding those things that are no longer useful. It also involves acquisition and total processes in library collection (Eguavoen, 2002). Collection development is a systematic and essential process of building

library collection to fulfill the teaching, learning and research needs of its target users (Lemu, 2011; Kaur and Gaur, 2017). The process includes acquisition, selection, evaluation and preservation of resources according to users "requirement". The objective of collection development is to facilitate access to some of e-journals, e-resources, e-conferences proceedings, databases (full-text and bibliographic databases) to the users on request basis within the research library (Aina, 2008; Sisimwo, 2016). Collection development is undertaken by libraries to increase the availability of library resources which are in many formats such as electronic and on-line publications.

2.3 Collection Development Policy

In any organization, no matter how simple and complex there must be laid down policy that will guide its affairs. Policy is a set of guidelines in the context of library operations. There is policy for selection, acquisition, assessment and weeding of information resources. This policy will ensure that all information resources to be acquired taila balance to the collection as well as relevant to users of the library for effective utilization. Collection Development Policy (CDP) will boost the library staff for better performance and also facilitate for a continuous, consistent and balanced growth of library collection. It has a great impact on all the activities of the library (Kumber and Hadagali, 2005; Kaur and Gaur, 2017).

Collection development policy helps for easy selection of information materials. This is because the policy would have stated some guidelines on how the selection of the material should be done. A typical selection guideline will state the following:

- description of information resources which needs to be acquired
- proportion of research materials
- determine the best method of acquisition.

- determine the disciplines to cover.
- standard for selection and weeding of material.
- cooperative programmes like interlibrary loan, resource sharing and networking
- cost of hardware and software, technical quality
- cooperative programmes like interlibrary loan, resource sharing and networking

However, in selecting electronic resources, librarians should consider, institutional needs; authenticity of the information; easy access to remote users; quality of the electronic resources; long term viability of resources for preservation purpose; the replacement policy of the publisher in the event of damage (Emery, Stone, & McCracken, 2020). E-resources should be flexible enough for effective use and should help in promoting communication.

2.4 Acquisition of electronic information resources

As soon as the necessary materials scaled through the selection criteria, the next thing is to acquire the materials, and the acquisition is done in a variety of ways. These include purchase, gifts, exchanges and legal deposits. Although, purchase is by far the most common way of acquiring library resources, gifts, exchanges and legal deposits are useful too. The acquisition process for an e-resource resembles the process for a print resource, but with a slight difference from the traditional acquisition of prints, such that pre-order investigation and ordering, specific tasks vary between the two formats (Yu & Breivold, 2008). Acquiring information for an electronic product is often much more time consuming than for print resources. It requires more time for decision making at every step as well as higher levels of skills and knowledge among staff (SomasekharaRao and Venkata Rao, 2012). It can as well require additional budget allocations due to higher subscription

costs than for print collections. According to (Puspita 2015), some of the materials to be acquired are e-books, e-periodicals, e-databases, e-images, e-dictionaries, e-music and sound collections and e-encyclopedias.

2.5 Evaluation of Electronic Collection

Evaluation of electronic publication is important to collection development and management because of its nature. It is impossible to build a balanced, relevant collection of electronic material unless the strengths and weaknesses of the current collection are known. Each service and products has to be evaluated and the performance has to be measured in terms of accountability, accessibility, quality, competency, availability, brows ability, search pattern, cost, and user friendliness. Also, condition of licensing should be considered. Other means of evaluation however, include: Checking the implementation; Ask your users; Changes to coverage of resources or platform migration; Track downtime/availability; Communication with the vendor etc (Emery and Stone, 2013).

3.1 Benefits of Electronic Publishing

The benefits of electronic publishing cannot be overemphasized. Electronic publishing has brought a great change in publishing, accessing, retrieving information and information transfer. It has come of age with certain advantages and disadvantages (Maheswarappa and Tadasa, 1997). Electronic publishing enhanced accessibility, usability, increased communication and collaboration between authors and readers, dissemination, technologic capabilities, facilitation of scholarly work, and cost (Ludwickand Glazer 2000; Radjagopal and Chinnasamy, 2013). Electronic publishing improves effectiveness, and recognizes new ways for using information by researchers and other knowledge seekers for more

productivity as well as satisfying their information needs (Okiki, 2012; Velmurugan and Natarajan, 2015). The main purpose of electronic publishing is to provide fast & easy access to the information contained in the objective publications with simple, powerful search and retrieval capabilities (Koganuramath et al., 2014).

Other benefits of electronic publishing are:

- 2 Electronic publishing is important to libraries because of the escalating cost of print materials, especially journals, the prices are escalating at an alarming rate. For some libraries to be able to fit into their budgets, the resort to electronic journals publications which has been found to be much cheaper than owning the entire issue of a journal.
- 3 Electronic publication can be produced, retrieved and disseminated very rapidly among the users than printed publication. For instance, books take more time to produce and distributed.
- 4 Information on electronic format can be used simultaneously by more than one user at the same time in different computing platforms.
- 5 Electronic publishing is conducive to long term preservation because of the relative ease of duplication and archiving of the publication.
- 6 Libraries can access and share information resources effectively with other libraries through electronic publishing.
- 7 For electronic resources, more space is not required for storage, as required for storing paper works.

- 8 Collection Development and co-operative collecting are simplified because libraries can share central storage and retrieval facilities.

4.1 Impact of Electronic Publishing on Collection Development

The impact of electronic publications on collection development has been great. The rise in electronic publication has required librarians to assume greater responsibility for keeping pace with technology. Electronic publishing has significantly influenced collection development in libraries. Electronic publishing in its various forms – e-books, e-journals, e-prints, databases, or hypertext pages, has transformed the media in which information can be delivered (Shehab and Johnson, 2006). The emergence of the latest search and information service on the Internet, the World Wide Web, with its freely available browser interfaces, has dramatically simplified access (Mohammed, 2016). Within the academic community for instance, the web has suddenly raised awareness and expectations of the benefits of distributing information electronically, and has profound implications for journal publishing (Al-Shboul, 2016). According to Aina (2008) many libraries a day are shifting from print journals to electronic journals collection. This is because of the enormous cost of building and sustaining print journals and limited access, compared to electronic journals that provide multiple simultaneous access to the same issue, remote access, in-built searching facilities, reference links and multimedia capabilities and reduce storage facilities and cost.

Electronic publication has become important source of information for libraries and in modern age, any research and special library that does not have access to electronic publications cannot provide adequate and current information to its clientele.

Schamber (1996) avers that electronic publishing has profound implications for collection development, which is defined as the intentional and systematic building of the set of information resources to which the library provides access. There is no much difference in the process of traditional collection development from that of the electronic publications. The normal process of collection development policy, recommendation of information materials, selection, acquisition, conservation and preservation is followed (Aina, 2003). In fact, electronic publication is changing the role of librarians in purchasing and managing collections as well as providing access to patrons, and the Internet; the World Wide Web have expanded and made available resources that were unimagined in earlier years (Scott-Emuakpo, 2002). Shrivastava (2009) in his article emphasized the need to build collection development in electronic environment due to large availability of e-resources.

5.1 Challenges of Electronic Publication

In spite of the benefits of electronic publication, there have been challenges and limitations to its adoption in libraries. According to Okiki (2012) inadequate end-user training, slow connectivity, limited access to PCs, poor search skills, lack of bandwidth, and lack of funds to subscribe to scholarly and research journals are some of the constraints to the use of electronic publications.

However, the challenges facing electronic publication in developing countries generally includes: erratic power supply, technological obsolescence, financial constraints, poor maintenance culture, non-availability of the facility to download open access article and absence of a national repository of electronic publications and legislative provisions

i. Erratic power supply: In the provision of

electronic publications, electricity/power plays a major role. We cannot think of digital library, which can work off efficiently without power for several hours. The other related problems like poor quality of telecommunication services, lack of technology standards, legal restrictions are also there.

ii. Financial constraints: the cost involved in the maintenance of electronic publications is quite high. In this context, financial restraints are much more severe in developing nations like Nigeria than the developed ones. There is nowhere in the world that library budgets keep pace with the growth of information, documents and ever-increasing demand for them. The budget allotted to most of the libraries however, remains the same every year.

iii. Technological obsolescence: Continual transfer of electronic resources from one hardware/software configuration to another or from one generation of computer technology to a newer generation is quite a common trend and a big challenge to collection development. Technologies keep changing at a very fast pace, as a result one has to upgrade all the time to keep pace with the changes. Obsolescence of equipment required to access digital information directly affects the longevity of digital information (Bhatt & Singh, 2004).

iv. Poor maintenance culture: Most of the libraries in Nigeria have very poor maintenance culture and this has caused frequent computer and network breakdowns and failures. To ensure fast data entry, storage and retrieval, there is need for regular and consistent upgrade of ICT facilities.

v. Non availability of the facility to download open access article:

Sometimes, some special software is required to be installed before downloading some information from Web. This problem is generally there when some information is not available on PDF format.

- vi. Management Issues: Electronic publications are not visible to the users as in traditional libraries where resources are physically available for browsing and use. Libraries subscribe to the different packages of different publishers/vendors, as such information sources remains scattered which is not convenient to the users for browsing and searching. All such resources need to be integrated in a database for easy accessibility.
- vii. Ownership and Licence agreement issues: Electronic resources are remotely located which often remain under the ownership of the publishers or vendors. Libraries have access to these resources under the terms and conditions of the agreement and licencing policy which poses serious problems at times especially after the expiration of the subscription.
- viii. Absence of a national repository of electronic publications and legislative provisions: There is no legislative provision to make it mandatory for publishers to deposit electronic and optical publication with a National Library of Nigeria as it is for print documents. To establish the reliability and authenticity of document such a provision is very much necessary.

Conclusion

Electronic publications have matured with the growth of the Internet and accepted by library community to be the integral part of library collections. Many publishers now have their products in other forms like CD-

ROM, web pages, databases, full text, etc. this products can only be accessed electronically. Access can only be guaranteed through subscription or outright purchase.

The process of the conventional collection development is not very much different from that of the electronic publications. The normal process of collection development policy, recommendation of information resources, selection, acquisition, conservation and preservation is followed. It is also important to involve information technology unit of the library in selecting electronic information resources, to ensure that all the technical support needed to access the information such as the hardware, software, and other equipment can be adjudge to be reliable.

Electronic publications have a lot of challenges not experienced with the selection and acquisition of traditional materials and it is necessary for the library to develop clear policies and procedures for the selection and management of such publications. To ensure longer life of electronic publication, a continuous expansion and upgrading of information storage, access techniques and technology is important.

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