EMERGENT TRENDS IN LIBRARY SERVICES DELIVERY: THE APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN ACADEMIC LIBRARIES

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Abstract:

This paper focuses on the application of ICTs in academic libraries as an emergent trend in academic library service delivery. It is strongly believed that libraries of the 21st century are experiencing changes in different areas of their services delivery. This paper, however, believes that this change is championed by the introduction of ICT in these libraries. Literature hold that ICT application in libraries is of utmost importance due to its numerous benefits. Among these benefits are; increase in effectiveness and efficiency of library services, reduction in time of information access, location and retrieval, saving of library’s physical space, etc. Amidst its numerous benefits in library service delivery, some academic libraries are yet to fully apply these ICTs in their services. To some academic libraries where these ICTs are applied, there are numerous challenges facing its utilization. This paper seeks to uncover the service delivery impact of ICTs and the challenges facing the application of the ICTs in academic libraries. In conclusion, ICTs are vital components for library development as well as the promotion of library service delivery and this paper recommends its full application in academic libraries to enhance effective and efficient library services delivery.

Keywords: Emergent, Trends, Library Services, and ICT

Introduction:
It is gainsaying change is constant, as propounded by a famous Philosopher Heraclitus when he tried to find out what the universe is made up of and reducible to. This change has led to several re-modulations of processes of service delivery in various institutions which the library is among. Today, one cannot talk about change without bringing in the application of Information and Communication Technology (ICT). These information and communication technologies (ICTs) have assumed a significant position in the affairs of man across the universe. Consequently, ICTs include all forms of technologies and systems that are applied and used for information management. Furthermore, the advances in ICT applications in libraries have brought radical changes in the ways information is gathered, stored, organized, accessed, retrieved and disseminated (Sharma, 2009). It is important to note that, the provision of library services are aimed at satisfying the informational, recreational and reference needs of the library users. In order to meet these objectives and ensure the overall satisfaction of the users’ information need, the application of computer and other electronic information resources is necessary, as this application tries to bring several products and services to the scene more than what has being obtainable.

Nonetheless, libraries regardless of the type and size in a bid to carter for its clientele's information needs engages in the acquisition, organization, dissemination, preservation and conservation of information and information resources both in print and non-print forms. However, any library service that is provided effectively, increasingly meets the needs of its information-eager patrons. A study carried out using the early librarians reviewed that, librarians used to think being trendy was a bad thing and a sign of someone who lacks individuality and perhaps is inconsistent. Today, this position of the ancient librarians is inconsequential as libraries are switching over to use of ICTs, electronic resources and offering of digital services and other emergent technologies at an accelerated pace. These ICTs cut across computers, digital systems, multimedia technologies, storage devices and platforms, communication systems, the Internet, printers, closed circuit television, photocopier, scanners, servers, projectors, television, e-journals, e-books, CD-ROM and a variety of other ICTs. However, Mohamed (2007) noted that these ICTs are fast replacing the traditional resources and services of the special libraries.
This paper therefore seeks to dwell on the application of ICT into library services in academic libraries, as among the emergent trends that have the potential of bringing about sustainable development.

Conceptual Clarification

The term “library” means a collection of educational materials organized for use. This word is derived from the Latin word “Liber” which means a book. This is a good reason to believe that the root concept of library is deeply embedded in our ways of thinking about the world and coping with its problems. In its primary role as guardian of the social memory, there are many parallels with the ways in which the human memory organises, stores and retrieves the information necessary for survival. However, academic libraries are libraries attached to institutions of higher learning such as universities, polytechnics, college of educations etc.

From developed climes like UK, USA, Australia, China, and Malaysia to other developing nations of Africa like Nigeria, there is absolutely no sector of the economy that are not operating effectively with the application of ICT. There are cases that abound like e-services, e-banking, e-billing, e-payment, e-commerce, e-business, e-governance, e-learning, e-libraries, and the like (Elegbede, 2016). ICTs in libraries basically capture the various electro-mechanical devices used in information handling (from generation to dissemination) (Nnadozie, 2016). It is the aggregate of computers and their accessories, telecommunications equipment, multimedia, and all other associated technologies applied in information organization, management and dissemination.

It is relatively important to understand that, information use has passed the era where the demand for scientific and technical information are mere computerized (Achebe, 2005) and has arrived in the era where the Internet is seen as being necessary for efficient and effective service delivery in libraries. Today in a world of rapid change where people are eager about the latest technology, news and innovation, being trendy is essential. Trend may be seen as the act of taking a general course. Although it is impossible to predict the future, we can identify emergent trends which form a key to understanding what the future might bring. Emergent in this context depicts new and unforeseen processes or methods coming unexpectedly or urgently. Some emergent trends are predictable from previously existing condition. Identifying and organising
trends will further help Librarians and library service providers think about changes happening in the world and the potential effects they will have on library services in future. It can as well help library service providers to actively plan for its numerous service especially as it relates to community service. The application of ICT in libraries for efficient and effective library services is seen as the emerging trend that open new opportunity to innovate and experiment with and within these ever transforming society and better enables Librarians imagine their integral role in this global world of information explosion. Although, it can be a disadvantage to some library users, declared that an understanding of how and why users either accept or reject new technologies is paramount to the issue of effective integration of a technology into organisational functions.

Within the knowledge society that has recently emerged, libraries are very important. This is based on the fact that these libraries serve as custodians and disseminators of the wide knowledge of the universe (information). The value of timely, accurate and relevant information has increasingly been acknowledged as providing a leading edge in the modern competitive world. Libraries have thus been equipped to support to create sustainable development and to ensure the survival and continued existence of their parent bodies. However, not all libraries are up to the task, as some are severely hampered by constraints that negatively impact on their ability to deliver the necessary services. This is especially true of libraries in developing countries, especially those on the African continent.

Areas ICTs are applied in Libraries

A debate which has been nullified is an argument that these ICTs were not originally meant for libraries. One can affirm that libraries started experiencing the introduction of ICT in 1450 as a result of the invention of movable types by Johann Guternberg, a German scholar. From that period till now, library practitioners and professionals have continue to adopt and further made an increase in their application and use of ICTs to further their task of ensuring access to the universe of man’s communication productions.

Consequently, there is no operation of the library to which the computer has not been applied with tremendous gains. According to Nwali (2010), there is no doubt that ICT such as computers, CD-ROMs, internet and GSM (Global Satellite Mobile) also called Global System of
Communication have positive influence on reading and circulation services of the library. ICT as pointed out by Onyeneke (2007), provides innumerable opportunities in enhancing the quality of services provided in the technical divisions of the library. The utilization of ICT has given rise to new modes of cataloguing and classifying information materials. Some of these ICT in cataloguing include the use of Online Public Access Catalogue (OPAC), Strategic Library Automation Management (SLAM), online cataloguing, copy cataloguing and union cataloguing among other ICTs (Ansari, 2008; Harris, 2008)

Furthermore, ICTs have been applied in the processes of teaching the users the rudiments of the library and to effectively utilize the library’s resources. According to Ayakola (2009), ICTs have created new concepts for teaching and learning process and a recasting of the roles played by the librarians. This takes place through the use of blogspots and other social networking sites to showcase the services of the library and inform the users on how these services can be harnessed. However, Jegede, Monu and Okunnu (2011) opines that the application of ICTs in this aspect offers the potential to strengthen convensional knowledge of library’s products and services while rapidly transforming distant knowledge about the library and its usage. In their view, ICT not only expand the research and development opportunities of the institutions but also strengthen libraries with access to an unlimited body of digital information globally and bring considerable efficiency and effectiveness to its parent body.

Digital preservation of library materials is another product of ICT application in libraries. This digital preservation have further assumed the concept of institutional repository. According to Nnadozie and Chukwueke (2016), institutional repositories have repositioned the library’s services and created academic visibility. Being, a locus for the collection and dissemination of research output of scholars, in the words of Akpokodje and Akpokodje (2015), in addition to digital assets generated by normal academic life, contains other vital information materials such as administrative documents, course notes, or learning objects which is required for effective delivery of service. Another area of preservation of library materials using ICT is the issue of cloud computing. Cloud computing has made the preservation and conservation of information easy in the library.

Edem (2008) observed that based on the importance of computers to information flow (information generation to utilization), the use of ICTs to facilitate research has become vital.
These ICTs makes it possible for academic libraries to carry out varieties of library functions without frowning and stress (Achebe, 2005). However, such routine service as circulation, reference services and serial control can be done through electronic documents delivery, outstanding, out-searching mechanism of the virtual and digital libraries and reference dialogue mode of the internet search engines. This made Onyeneke (2007) to assert that the coming together of computing and telecommunication for the purpose of handling information has made it possible for information seekers to meet their information needs rapidly and easily.

Without doubt, ICTs are impacting on various aspects of libraries and information profession. Its application in all functions of the library has resulted to digitization in information source and digital media replacing and becoming the dominant form of information storage and retrieval (Islam & Islam, 2006). In their views, Islam and Islam (2006) went ahead to argue that libraries and information centre can hardly function today without computers and information technologies. Agreeing with the above, Anaehobe (2007) contends that ICTs provide libraries with capabilities for the location of information, storage and retrieval of information and dissemination of information, internet access enables libraries to locate information stored in other computers around the world in the web (websites). Furthermore, Ugwuanyi (2009) posits that ICTs have revolutionized various aspects of the library service from the simple clerical work to the acquisition, organization and dissemination of information and information materials.

According to Anunobi (2008), the emergence of information and communication technology has repositioned the frontiers of academic library resources, operations and services as well as expectation of user group. To her, academic libraries no longer restrict themselves to point services such as collection development, cataloguing and classification, current awareness services (CAS), selective dissemination of information (SDI) and other bibliographic services but have extended their effort to inter-disciplinary concepts and computer software and hardware and telecommunication engineering and technology.

Elegbede (2016) observed that libraries are fundamentally relationship organizations. Today, library services are becoming more specialized in the complex digital environment as they aim to integrate resources and services into the processes, workflows, and life-flows of users (Cox & Corrall, 2013). Libraries have adopted and adapted frameworks from the business arena, such as the PZB SERVQUAL gap model of service quality assessment, and the library
version, LibQUAL+™, which was developed in the US, but has been taken up internationally, in Europe and farther afield.

**Service Delivery Impacts of ICTs in Service Delivery of Libraries**

The rapid development and influx of Information and Communication Technologies (ICTs) to operations and services of different sectors of human activities, including libraries have made commensurate impact and has led to series of innovations (Nwaneri & Nwaneri, 2013). However, it is of no argument to believe and support the fact that the efficiency and effectiveness of any library operations and services regardless of the size, type and its user community as an instrument of education, research and community development is determined by the success with which the library is able to provide and satisfy its diverse user’s information needs timely and accurately. There are tools that have aided to the above statement. One of these tools that has made tremendous move towards the achievement of the tripartite function (education, research and community development) as well as the wide purpose of a library is the incorporation and advancement in the application and use of Information and Communication Technology, electronic information devices such as electronic books, electronic journals, through the internet to the library’s services delivery and operations execution.

Before the emergence of ICT, the functioning of the libraries in Nigeria has been cumbersome, time-wasting, without giving any room for flexibility. But with the introduction of ICT in Nigeria, particularly in the libraries there is simultaneous access for many users at the same time and it has further led to the closure of the global information gap that existed between the librarians and the users and further created a brighter future for users of the library resources and services (Onyeneke, 2007). According to Ezeani (2010) ICTs have become within a very short time, one of the basic building blocks of modern society.

The increasing adoption of ICTs in library has led to effective operations and service delivery. However, the paucity of ICTs in most of these libraries undermines their ability to provide the information required for improved service delivery and efficient library operations. Consequently, the application of ICT in library service delivery, with no doubt has advanced the libraries and further led to breakthrough and developments, rapidly reshaping the ways libraries and librarians store, manipulate, retrieve and disseminate information needs of users (Adigun,
ICT as rightly observed by Okorie (2005) has changed the scope, pace, range as well as the procedure of information service delivery, storage and retrieval. It enables information to be stored, retrieved, communicated and broadcast electronically in enormous quantities and at phenomenal speed. With the application of the ICT in the library, there will be simultaneous access for many people at the same time, and library users will have self-service to replace the unavailable services they may have received from library staff (Womboh & Abba, 2008).

The impact of information and communication technology according to Esohe (2005) includes elimination of duplication in data entry operation in the control of operations; improvement in the control of operations; error reduction in data handling operations; improvement in the speed of operation; enhanced capability to share bibliographic data and resources with other libraries and improved staff morale and prestige, while the benefits to users was articulated as follows: speedy access to information without having to wade through large volumes of paper, computer allow searching by combining different criteria thereby leading to retrieval of specific relevant information, user can access information remotely in a network environment, user can access information with other people who have similar interest with whom they share information and ideas and it helps to speed up the process of document delivery from remote sources. ICT use according to Adetimiren (2007) could provide university students, lecturers, and researchers in the developing countries the opportunity to bridge the knowledge gap between them and their counterparts in developed countries. He further stressed that ICTs facilitate communication between teachers and students, as well provides students with additional opportunities to write, edit, and undertake multimedia project.

Challenges Facing the Application of ICTs in Libraries for Service Delivery

Amidst its numerous benefits, some libraries are yet to fully use ICTs to drive their operations and services (Mensah, 2015; Igwebuike & Agbo, 2015; Adigun, 2015). According to Aguolu and Aguolu (2002), the position of ICT application to libraries in developing countries is, however, a far cry from that in developed countries. Esohe (2005) stated that poor electricity supply, unfavorable government policy, lukewarm attitude towards the alleviation of the suffering of the users of such libraries, high cost of importation of ICT facilities and insufficient fund allocation are some the problems that hinder ICT use in the library. Ayo (2001) indicated lack of telecommunication/telephone facilities and internet accessibility of ICT facilities in
Nigeria libraries as among the challenges facing the application of ICT in libraries. Chisenga (2006) opined that lack of budget provision for the purchase and maintenance of ICT facilities by parent organizations and library management have greatly hindered the libraries. Even the meager approved fund which could have been used for the development of the library including ICT, tends to be diverted.

Similarly, Adigun (2015) confirmed that the poor state of the library and library services in Nigeria is no longer news. The empty library shelves or the outdated books on the shelves say it all. The dilapidated library buildings complete the story. These cases depict the funding problems being experienced by all Nigerian libraries. Sharma (2009) informed that the use of ICT facilities such as networking, trucking, cabling, networking cards software administration and the maintenance of the file servers are capital intensive. The funds are usually not available for libraries.

Akporhornor and Akpojotor (2016) found out lack of training, poor infrastructure and high cost of usage as the obstacles to proper and full application of ICT in libraries. Furthermore, Nwachukwu and Asom (2015) observed in their findings that inadequate funds, inadequate power supply, lack of government sponsorship, time constraint, irregular organization of IT programmes, inadequate Internet cafes, among others are the challenges facing the effective use of computer systems and technologies in libraries.

Ezeani (2010) identified lack of ICT policies, lack of sufficient monetary allocation to e-resources in libraries, lack of human resource capacity and lack of affordable technologies as challenges to effective applications of ICT to library service delivery. She further stressed that lack of effective consortia efforts by libraries in Nigeria, lack of adequate basic infrastructure, lack of appropriate maintenance culture and technophobia are part of factors militating effective application of ICT. Furthermore, Nwabueze and Urhiewhu (2015) identified epileptic power supply, non availability of online databases, inadequate or slow band width, inadequate computers, network problems, lack of ICT skills, and lack of formal training in internet use, server slowness and frequent breakdown as the factors hindering the use of ICT in libraries. According to Nitin (2015), inadequate funds, shortage of human resources, lack of training of staff, low bandwidth and irregular power supply are some challenges facing the use of ICT in libraries.
Solutions to the Challenges of the Application of ICT in Libraries

Aguolu and Aguolu (2002) asserted that, computers have great potentials for use in the library. They are well-established features of modern libraries in developed countries, but financial, infrastructural, technical and staffing inadequacies, which characterize developing countries, are major constraints on wide spread use of computer in Nigerian libraries. Onyeneke (2007), made the following recommendations to these challenges that there should be orientation and workshops organized for few days. Mensah (2015) in support of this stated that, seminars, conferences, workshops and in service training are to be invigorated as to extend teachers knowledge based and information of ICT education programme.

Nnadozie (2016) in his paper provide the following as the solution to the challenges facing the application of ICT:

- Provision of adequate fund by the various levels of government authorities in the country for the procurement, installation and maintenance of the ICTs.
- Organization of re-orientation programs to change the librarians and users’ negative attitude to ICT and the prevalent perception of these technologies as a threat to jobs
- Formulation of strong regulatory framework: The policy would stipulate the quality of ICT required, discourage the dumping of substandard and unserviceable ICT in the country, set a timeline for public and corporate organizations to migrate to e-platform/services, establish and streamline the regulatory structure and stipulate the quality of training and certification for ICT personnel among other recommendations

Summary and Conclusion

The profitability of the application of Information and Communication Technology (ICT) is gaining momentum in different areas of operation of most libraries, especially special and academic libraries. Consequently, it is important to understand that the major importance of the establishment of libraries is to provide resources and services for their users, and this constitutes the most important area of the organization’s success and development in terms of achievement of their goals, aims and objectives. Current researches and studies show that many libraries in Nigeria are finding it difficult to meet the information needs of their users. These libraries
experiences these difficulties as a result of the nature of information sources and services available and are being offered by the library. The difficulties are caused as a result of inadequate provision and full application of ICT facilities in these libraries.

The applications of ICT in libraries, commonly known as library automation, have indeed continued to ease and promote quick and timely access to and transfer of information resources that are found dispensed round the globe (Igwe & Uzuegbu, 2013). Consequently, Nnadozie and Chukwueke (2016) posits that, information is fast becoming a vital national resource that determines the direction of any nation globally. Therefore, librarians, informationprofessionals and documentalists must be conversant with development in ICTs for the organization and disseminating of information in order to increase knowledge. Library automation and its attendant digital technologies, present new opportunities and challenges to libraries to enhance their services. Although there are some libraries that are making serious efforts in order to be in tandem with the ICTs realities, mainly by computerizing their routines (acquisition, processing, charging and discharging, serials management), developing online catalogues and other retrieval aids, creating institutional repositories, developing library websites, providing online information services, among others.

Declining to the call of emergent trends, it was observed that many other libraries still rely on the traditional method of service delivery, and appear not disturbed with what they do, even up to the point of no longer attracting information users' interest. Efforts should however be made by these libraries to apply ICTs to the services and operations, as this will go a long way in shaping and advancing their services.

References


