

ICT and Library Services as Catalysts for Change and National Development

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Abstract

Purpose: *This paper examines the impacts of libraries and ICT in national development. National development is a product of collective contribution from all sectors of the economy. Today, there is a change in the air in terms of political leadership in Nigeria. The change agenda is expected, among other things to deliver to Nigerians a nation with an improved economy and human development. Librarianship which is currently undergoing transformations as a result of the emergence of Information and Communication Technology (ICT) has a great role to play in nation building.*

Design: *It is a prose literature type which stresses the need for improved inclusion of ICTs in library services delivery for efficiency and effectiveness.*

Findings: *The paper identifies cost, epileptic power supplies and obsolete ICT facilities, among others as factors that impede ICT use in library services delivery in Nigeria.*

Originality/Value: *It is recommended that the government at all levels and other stakeholders should ensure adequate funding of libraries in the light of active investment rather than a passive obligation. Adequate funding, it is believed, will also help libraries in the provision of necessary ICT infrastructures and facilities.*

Keywords: *Change agenda; ICT; Library services delivery; National development*

Introduction

Over the years, the expectations of many Nigerians from any new government have remained far from being fulfilled. The President Mohammadu Buhari's "Change Agenda" was articulated and projected with the core objectives of 'securing our nation, prospering our people, changing the style of politics and governance, conflict resolution, building the economy and infrastructure base, enhancing the society and human capital development, and maintaining the environment' (Buhari, 2015). It is not enough to formulate beautiful plans for development without actually following up with actions that show commitment. One may quickly argue that the bane of many Nigeria's development plans is the inability of successive governments to integrate library and information services into such plans. National projects such as the Nigerian Economic Empowerment and Development Strategy (NEEDS); 7 Points Agenda; Millennium Development Goals (MDGs); and Vision 20:2020 could hardly

record any meaningful success without the provision of library and information services for research and development in each of these projects. Experience has shown that there is a high positive correlation between the success of development plans and the provision of online information resources facilitated by the use of ICT to support them (Ochogwu, 2012). It is therefore imperative to add that for the Change Agenda not to be a white elephant project, there is need for an elaborate collaboration with the library sector because the primary objective of Nigerian libraries is to provide knowledge for development.

Supporting this assertion, Franklin Roosevelt, a former US President once said "Libraries are essential to the functioning of a democratic society. They are the greatest symbols of the freedom of the mind". Information is a powerful commodity that provides nations with the basis for innovation, the resources for informed citizenry and holds the key to the progress of the society. According to Omolayole (2004), the library, by its design and responsibility, is at the

center of all information businesses. They perform the vital roles of collection development, processing, organization, storage, retrieval, dissemination and preservation of information. She further asserts that these roles are geared towards meeting the cultural, educational, leisure and general information needs of a society using the new information technologies for faster access to information resources in all formats.

According to Aina (2004), the evolution of Information and Communication Technology (ICT) has brought about new changes and services in modern libraries. ICT is heavily utilized in storage, processing and dissemination of information. It has made organization of information very efficient, the delivery of basic information more effective and dissemination of information faster. ICT has also eliminated the conventional time and space that are familiar with the traditional library system. With ICT, libraries are now positioned to play active role in information services delivery for national development.

National development therefore refers to the ability of a country to improve the social welfare of the people, for example, by providing social amenities like good education, infrastructure, medical care and social services. The features that can lead any country to development are: education, rich natural resources, rapid industrialization, increase in working population, stable political environment etc. Information for this national development is currently housed in the library.

ICT and library services delivery for national development

Globalization and advancement in technology have changed the delivery of library services in Nigeria. Aboyade, Oyebanji and Amusan (2014) noted that, the dawn of the 21st century ushered in quite a number of changes in information provision. Hence libraries have little or no choice than to adopt and adapt to some of these changes that characterize the current evolving and dynamic information environment. They maintained that with the current information explosion experienced in this era of globalization, modern librarianship heavily relies on the use of ICT to function efficiently and effectively. Hence, in order to keep pace with the global trend in performance and information

services delivery, library services in Nigeria have to be redesigned and readjusted to reflect what is currently obtainable worldwide in terms of technological advancement.

ICT in libraries comprises all electronic infrastructure and facilities employed to provide improved and efficient services. Such facilities consist of hardware, software and communication links like the internet, intranet, computers, printers, scanners, intercoms, telephones, etc. Developments in ICTs, according to Abubakar (2011), have now offered libraries exciting but challenging opportunities that require them to respond positively in all facets of their services and functions if they are to remain relevant in the 21st Century. Haliso (2011) has identified some of the opportunities presented by ICT to libraries for improved services delivery to include virtual libraries; resource sharing/document delivery; human capital building; organization of information resources; management information system (MIS) etc. Continuous advancements in these opportunities and their exploitation portend great future for the library profession in Nigeria.

ICT and virtual library

According to Akanni (2007), globalization of library services engendered by the advances in ICT and the emergence of virtual libraries is perhaps the greatest development of our time. Traditionally, the library has its role as the place for collection, organization, preservation and dissemination of information materials gathered in a place. This has however changed as libraries now lay more emphasis on dissemination of information that has been collected, organized and stored not only in a given library but from one library to another or between libraries. Consequently, this is the birth of virtual library using modern technology to facilitate dissemination of information to information seekers (Madu, 2006). The present day library services in the 21st century focus more on digital, virtual or libraries without borders. The transformation and transition, according to Abubakar (2011), are accompanied with sophistication in the changing pattern as the information needs of users continue to grow rapidly. One of the beauties of the concept of the virtual library system lies in its ability to provide access to a wide range of services to users or members of a virtual library community irrespective of their locations.

Virtual library, otherwise known as digital or electronic library, is a borderless library that stores information electronically and makes it accessible to users through electronic systems and networks. Electronic information resources are products of ICTs and they have been found relevant to the learning and research process in higher institutions of learning. It is a bookless space, facilitating the provision of information resources predominantly by electronic means, which includes the web, e-mail, fax and electronic transfer of scanned documents across the internet (Tuomi and Namaala, 2007). Examples include e-journals, e-books, e-databases (EBSCOHOST, HINARI, JSTOR, OARE, MIT, AGORA, Science Direct, IEE etc.) OPAC, e-theses and dissertations, internet etc

Information is very crucial to every type of development. Providing users with the right information has been the core objective of librarianship. However, the emergence of the virtual library system brought about by ICT has made this a reality in the 21st century (Akanni, 2007). This development is of immense advantage to developing nations like Nigeria. It presents an opportunity to bridge the information divide between developing nations and advance economies. Indeed, Nigeria and Nigerian libraries stand to benefit a lot from virtual libraries if only they would take the advantages of the golden opportunity offered by ICT and globalization. More so, it is an opportunity to contribute to the global information by digitizing its local information resources and uploading them on the web for global consumption.

According to Orji and Maekae (2013), a nation develops in relation to its achievement in education. This explains why contemporary world attention has focused on education as an instrument for launching nations into the world of science and technology. Education in the life of any nation is the life wire of its industries and the foundation of moral regeneration and the revival of its people. It is also the force and bulwark of any nation's defense and it has been observed that no nation rises above its education. The emergence of virtual library systems has provided unlimited educational opportunities world-wide. Students, scholars, academics, administrators now have the opportunity to broaden their horizon of knowledge in their various fields of endeavour and thus improving themselves to improve their nations.

According to Lawal (2010), the National Virtual Library Project (NVLP), was conceived as one of the intervention projects in the Nigerian educational system by the Federal Ministry of Education. This project has been launched within the National Open University of Nigeria (NOUN) which emphasizes the use of ICT to spread knowledge around Nigeria as a means of accelerating educational development of the country.

ICT and online reference services

The development of ICT has provided opportunity for online reference services based on the questions and answer type of assistance provided in the traditional inter-personal reference. Asynchronous tools such as e-mail, subject gateways and interactive social media tools like chat rooms (whatsApp, 2go, facebook etc), virtual reference desk and 'ask- me' are rapidly replacing the conventional means of post, or in-person reference enquiries. Ask-a-Librarian allows the user to click on ask a librarian link to send a formatted enquiry to the reference librarian (Ndukwe, 2012). The reference librarian either provides an answer, links to resources or a link to a subject specialist. Interactive tools now allow reference interviews online thereby improving access to information.

ICT and collection development

The advent of virtual library has begun to transform the collection development of libraries. Akanni (2007) opines that a lot of electronic publications abound to which library can subscribe to, in addition to converting its texts into digital formats. Such electronic information resources include e-journals, e-books, e-databases (EBSCOHOST, HINARI, JSTOR, OARE, MIT, AGORA, Science direct, IEE etc) OPAC, e-thesis and dissertations. This can empower libraries to develop blended and hybrid collections towards meeting the information needs of their clientele.

Bibliographic services and ICT

Compilation of bibliographies, reading lists and state-of-art reports are very important aspect of library service, particularly in research and academic libraries. Browsing through the manual indexes and abstracts is tedious and time consuming and does not always produce the desired result (Ndukwe, 2012). Availability of databases in electronic form on CD-ROM or

online, offers convenient, efficient and cost effective information retrieval. Electronic databases also provide unique search features such as searching on multiple criteria (key-words, subject, author, source, year of publication, language, ISBN etc.), and variety of display formats and styles.

Current awareness services and ICT

Current Awareness Services (CAS) has been an important means for keeping users updated in their areas of interest. According to Ndukwe (2012), a current awareness service may be as simple as a copy of table of contents or a bulletin containing bibliographic records of articles selected from the current issues of journals and other materials, and usually organized by subjects. Libraries now compile current awareness bulletins using predefined search strategy and running on the database either on CD-ROM or online periodically and getting the desired output. Subject to copyrights, the output can also be stored on a local system, and disseminated online (internet, intranet) and offline (print, CD-ROM, mail). With CAS powered by ICT, library users, especially researchers are kept abreast with latest development thus opening up the frontiers of research for nation building.

ICT and resources sharing

The terms library co-operation, library networking, library collaboration, library consortia, inter library loan and document delivery and access services are some of the terms used interchangeably to describe formal and informal cooperation, partnership and resource sharing activities among libraries. Rydling (2007) cited in Muhammad (2014), defines library resource sharing as the process whereby resources of a group or network of libraries are made available to the sum total of persons (users) entitled to use one of the libraries.

The necessity of resource sharing was born out of the fact that no single library, irrespective of its level of funding can acquire all information resources needed to satisfy the information needs of its clients. With the advent of ICTs, resource sharing among libraries such as library co-operation, inter library loans, co-operative acquisition, co-operative storage like National Union Catalogue (NUC), bibliography of bibliographies and reference services have

adequately made available library resources to users with ease, irrespective of their needs and proximities.

Advances in ICTs have enabled sharing and exchange of information for various purposes worldwide. This development has placed libraries in most advantageous position that will enable them to serve the information needs of the global village. It has become imperative for Nigerian libraries to make their intellectual collections available for global access via the internet in order to fit into the new direction (Nkanu and Okon, 2010).

ICT and customer relations/user education

The library being a service organization, customer services and user training are important aspects of its activities. A continuous interaction with users for feedback and information is imperative to maintain standards in service delivery. While the conventional means of interaction such as meetings, use of suggestion box, surveys and interviews are still important, blending the system with ICT mediated services such as e-mail, web forms, bulletins boards, discussion forums and listserv is a welcome phenomenon. Not only that these tools provide a fast, convenient and transparent and cost effective medium, but also offer scope for innovations and greater peer participation. In the conventional class room based user education, ICT tools are also used for presentation and demonstration.

ICT and human capacity building for librarians

Human capacity building in library is the enhancement of the human factors that make for efficient service delivery and user satisfaction. The emergence of ICTs has inspired stiff competitions in today's business environment. It has become an era of 'survival of the fittest'. No business enterprise whether profit-oriented or service-oriented like the library is immune to the sweeping effects of ICT. However, the role of library as repository of knowledge and the librarian as intermediary seemed threatened as the implications of ICTs continued to surge. Akintunde (2006) has raised some observations about the technical competence of the 21st century librarians in the face of the changing trends. Globalization, engendered by advances in ICTs has boosted library operations and services thereby making librarians to be more

relevant as information professionals more than ever before. Users require the support of librarians to exploit the potentials of search engines to retrieve relevant information. Research has shown that there is an increasing demand for librarians in all sectors in Nigeria as many organizations now establish libraries to support their services. Today, a host of libraries have undergone automation in line with globalization. Rather than throwing librarians out of job, ICT has only offered them more opportunities. Interestingly, librarians now designate themselves as blended librarians, information scientists, system librarians, information managers, cyberians, hybrid librarians, digital librarians and many more. This is with a view to reflecting their new roles

In order to consolidate the gains of ICT in terms of capacity building for librarians, Ochogwu (2012) opines that “more research is needed in library education and general library development in the area of ICT capacity building for librarians. Since the prototype of yesterday’s librarians is today endangered species, the library and information professionals, in order to play new roles of specialists, interpreters, disseminators, research investigators, cyberarians, trainers etc., need to be empowered with new knowledge and ICT skills. Hence, the strategies for meeting the current challenges to providing efficient library services for national development begin with active acquisition of ICT skills by librarians. According to Aboyade, Oyebanji and Amusan(2014), skills required for optimal performance of modern librarians include adept ICT skill, instructional skill, life-long learning/continuing education skill, research skill, knowledge mapping skill, information literacy skill, etc. Efforts are being made towards this direction.

Commendably, national and international library organizations like the Librarians’ Registration Council of Nigeria (LRCN), International Federation of Library Association (IFLA), National Library Association (NLA), library schools in Nigeria among others, are now organizing ICT based trainings and workshops for librarians in Nigeria during conferences at the state, regional and national levels using e-conferencing, web seminars, use of posters in seminars etc. There is the IFLA’s existing policy training packages, for example, workshops on internet manifesto or access to public health

information through libraries, online platform to provide remote access to materials and knowledge (Stuart and Bradly, 2010).

The Universal Service Provision Fund (USPF), in collaboration with the LRCN conducted training for librarians to manage the e-library project implemented in 74 public and academic libraries across Nigeria under the Information Resource Centre Project (IRCP). The intensive 5-module training programme was one of the outputs of a comprehensive sustainability programmes designed to ensure that the benefiting libraries are equipped with adequate skills to manage and sustain the e-libraries. At the end, librarians totaling 222 were trained (USPF, 2015). Arising from global trend, librarians in Nigeria are now poised for training and re-training to enable them champion the course of information dissemination for national development and global competitiveness. ICT has further empowered librarians to render services in a more creative and proactive manner, using Current Awareness Services (CAS) and Selective Dissemination of Information (SDI) through information routing, among others.

The internet has enabled a lot of innovations in contents, methods of production and distribution of current awareness products. Tools such as Listserv, Weblog, Webzines, e-newsletters and e-newspapers are common (Ndukwe, 2012). Many librarians in Nigeria are already exploiting some of these tools for quality service delivery. Indeed, the application of ICT in libraries has become an acceptable norm, being the most realistic way and means of providing timely, accurate and efficient information services for national development. The impact of ICT in librarianship goes beyond that of service quality and user satisfaction. According to Badu (2004) cited in Uhegbu (2007), ICT has tremendously affected the perception and image of both library and the librarian and at the same time encouraged greater appreciation of the worth and relevance of library and information services in Nigeria. However, myriads of challenges still impede its use in Nigerian libraries.

Challenges in the use of ICT in Nigerian libraries

The challenges being faced by Nigerian libraries in their effort to maximally utilize the ICT are numerous and complex. Among them include:

Inadequate technological infrastructure:

Technological infrastructure requirements for ICT operation such as telecommunication facilities, bandwidth facilities, software applications remain inadequate if not lacking in many libraries in Nigeria. According to Jegbefume (2014), the internet service providers make use of expensive technology like VSATs and radio link for most institutions' libraries, thus making the internet connections to be erratic and slow.

Inadequate power supply: ICT equipment largely depends on electricity supply for functionality and effective performance. However, in Nigeria, intermittent and frequent power outages with an unending sign of improvement, which have become a national calamity, pose a serious threat to libraries in their efforts to use ICT facilities. Public power supply has become very unreliable and the alternative is expensive and out of reach of many libraries which are already poorly funded (Ajayi, Shorunke and Akinola, 2013). The epileptic nature of electricity supply will not support the successful implementation of automation of library services.

Cost: The high cost of computerizing library services is a major challenge. The cost of library automation, internet services using VSATs and other facilities needed for the take-off of library automation is enormous (Jegbefume, 2014). More so, provision of funds for library development has remained very poor over the years. It is evident that no institution can ever develop beyond the available financial resources.

Shortage of management and technical expertise:

This has been a major challenge due to low training in ICT in library schools. Many library schools in Nigeria still operate the conventional syllabus which is ICT deficient. Where ICT is included as part of the curriculum, it is more theoretical oriented than being practical. The reliance on the traditional approach of training librarians without exposure to the practicality of the new technology is no longer acceptable as the trainees would eventually find themselves ill prepared for the demands of the ICT driven working environment.

Inadequate projection of the library profession:

According to Ochogwu (2012), the library

profession in Nigeria lacks the political base for itself in the comity of other professions. It has not been able to integrate itself into the socio-cultural and political processes of the Nigerian state. Hence, its importance and functions are less valued and appreciated. The singular effect of this scenario is that the libraries as social institutions cannot compete favourably with other social agencies for limited resources of the state.

Other factors: Empirical researches by Amakuede (2005), Ajayi, Shorunke and Akinola (2013), Igun (2013) have identified maintenance and obsolete ICT facilities, unsustainable technology strategies and policies, the problem of digital gap, total lack or inadequate internet connectivity, administrative barriers, lack of shared initiative, lack of long term planning, psychological barriers, lack of comprehensive collection development policy, insufficient or total lack (in some cases) of IT training programmes as factors that impede ICT use in library services delivery in Nigeria.

Conclusion

The expected roles of Nigerian libraries in the 'change era' require the improved integration of ICTs in library services. This has become imperative, given the fact that manual practice is now insufficient for information services that can contribute meaningfully to national development. This is because ICT, according to (Uhegbu, 2007) has become the road map for sustainable dissemination of digital records and feedback. In all sectors of the Nigerian economy (health, agriculture, education, finance, tourism, etc), ICT has remained the "beautiful bride", fine-tuning, reshaping, restructuring, repackaging, transferring and encouraging effortless use of data and information across the globe for national development. If libraries ignore educational, social and technological pressures for improved integration of ICT into its operations and services, they will miss the opportunity of playing their part as a major change agent in our society. When the collective activities of all types of libraries and information centres in Nigeria are channeled towards provision of information and knowledge for the attainment of the developmental plans of the present day government, it would have been in the right direction towards making the Change Agenda a reality.

Recommendations

For libraries to contribute meaningfully and significantly towards the actualization of the Change Agenda using ICT, the following recommendations have been suggested:

1. The government at all levels and other stakeholders should ensure adequate funding of libraries in the light of active investment rather than a passive obligation. Adequate funding will help libraries in the provision of necessary ICT infrastructures and facilities;
2. Stable electricity is indispensable to proper functionality of ICT and efforts should be geared towards such. Generators and inverters can serve as back-up when power from the national grid fails;
3. Computer skills of librarians as important factor in ICT use for service delivery should be developed through training, retraining and motivation;
4. The curriculum of library schools in Nigeria should be ICT compliant;
5. Librarians in Nigeria should endeavour to project and market the image of the library profession to the general public and the government thereby securing a befitting place for itself in the comity of other notable professions in the country.

References

- Aboyade, A. M., Oyebanji, F. I. & Amusan, B. B. (2014). Issues and concerns in academic library services delivery in the 21st Century Nigeria. *Jewel Journal of Librarianship* 7(1), 55-62.
- Abubakar, B. M. (2011). Academic libraries in Nigeria in the 21st Century. *Library Philosophy and Practice* 3(5), 15-23.
- Aina, L. O. (2004). Coping with the challenges of library and information services delivery: The need for institutionalized professional development. A paper delivered at the 42nd National Conference of the Nigerian Library Association. Akure 20th-25th June.
- Ajayi, S. A., Shorunke, O. A & Akinola, A. O. (2013). Factors influencing the use of information communication technologies (ICT) by library personnel in college libraries in Osun and Oyo States, Nigeria. *The Information Technologist*. 10(1), 145-156.
- Akanni, S. B. (2007). The virtual library: issues, prospects and challenges. *Nigerbiblios* 18(1&2), 116-131.
- Akintunde S. A. (2006). State of ICTs in tertiary institutions in Nigeria: window on the universities. Invited paper presented at the 44th Annual National Conference and Annual General Meeting of the Nigeria Library Association, held at the National Centre for Women Development, Abuja, Nigeria.
- Buhari, M. (2015). My manifesto and vision for Nigeria. Available at <http://newnaija.com>. (Accessed 11/1/2016).
- Haliso, Y. (2011). Factors affecting information and technology use by librarians in South West Nigeria. *Library Philosophy and Practice*.
- Igun, S. E. (2013). Problems encountered by librarians in the utilization of ICTs in Nigerian university libraries. *The Nigerian Libraries* 46(2), 87-101.
- Jegbefume, C. M. (2014). The role of library vis-à-vis information and communication technology in nation building. *Jewel Journal of Librarianship*. 7(1), 125-129.
- Lawal, O. O. (2010). *Library and information practice and education in Nigeria: current trends and issues*. Calabar: the University of Calabar Press.
- Madu, E. C. (2006). *Information technology: uses and preservation of resources in libraries and information centers*. Ibadan. Evi-Coleman Publications.
- Muhammad, Y. (2014). Library networking and information resource sharing: benefits and challenges in academic libraries in Bauchi State, Nigeria. *Jewel Journal of Librarianship* 7(1), 98-105.
- Ndukwe, C. (2012). Information and communication technology (ICT) and information service delivery in libraries. A seminar paper presented in the Department of Educational Technology/ Library and Information, Faculty of Education, University of Uyo, AkwaIbom State.
- Nkanu, W. O. & Okon, H. I. (2010). Bridging the gap through ICT in Nigerian libraries. *Library philosophy and practice* 10(5), 123-131.
- Ochogwu, M. G. (2012). Open access to knowledge: role of library and information centres in achieving Vision 20:2020 in Nigeria. *Nigerian Libraries* 45(1), 1-13.
- Omolayole, O. O. (2004). Nigerian libraries and information service centers: the challenges of

- socio-economic/technological development of the 21st Century. *Nigerbiblios*. 15(1), 1-6.
- Orji, E. K. & Maekea, J. (2013). The role of education in national development: the Nigerian experience. *European Scientific Journal* 9(28), 16-23.
- Stuart, H. & Bradly, F. (2010). IFLA announces new training programme for library association development. Available at www.ifla.org/news/ifla. (accessed 26/2/2016).
- Tuomi, V. & Naamala, V. J. (2007). Transforming or distributing? academic libraries in the digital era. Available at <http://ebricfi> (accessed 15/2/2016)
- Uhegbu, A. N. (2007). *The information user: issues and themes*. Okigwe, Nigeria: Whytem Publishers.
- USPF (2015). E-library managers are being trained. Available at www.uspf.gov.ng/index. (accessed 26/2/2016).