

## **Challenges of creating, re-creating and maintaining a national bibliography in digital age: the experience from national libraries in developing countries.**

### **Charlie OBICHERE**

Polytechnic Librarian, Federal Polytechnic, Nekede, Owerri, Nigeria  
[charlieobichere@gmail.com](mailto:charlieobichere@gmail.com)

### **Oyemike Victor BENSON**

Department of Library and Information Science, Federal Polytechnic, Nekede-Owerri, Nigeria  
[ovbenson@fpno.edu.ng](mailto:ovbenson@fpno.edu.ng), [bensonoyemike@gmail.com](mailto:bensonoyemike@gmail.com);

### **Nerisa KAMAR**

Project Coordinator, Information Africa Organization, Kenya  
[nerisa@informationafrica.org](mailto:nerisa@informationafrica.org)

### **Justina E. OGBONNA**

School of Mathematics and Computing (Somas), Kampala International University, (KIU) Kampala, Uganda  
[tinaogbo2006@yahoo.co.uk](mailto:tinaogbo2006@yahoo.co.uk), [justina.ogbonna@kiu.ug](mailto:justina.ogbonna@kiu.ug)



Copyright © 2023 by Charlie Obichere, Oyemike Victor Benson, Nerisa Kamar, Justina E. Ogbonna. This work is made available under the terms of the Creative Commons Attribution 4.0 International License:

<http://creativecommons.org/licenses/by/4.0>

---

### **Abstract:**

*The paper focuses on challenges of creating, re-creating and maintaining a national bibliography in digital age: the experience from national libraries in Kenya, Uganda and Nigeria. The status and peculiarity of bibliographic control in the selected developing countries in Africa was well articulated. Strategies adopted for creation of national bibliography in the selected national libraries were examined with highlights on the need to re-create and maintain the bibliographic data in the new digital environment. Factors limiting effective creation and maintenance of national bibliography in the digital age such as technological, institutional, scientific and political factors were identified. The nature, type*

*and functionality of digital infrastructure available in the national library of selected countries were explored. Recommendations were made in line with discovery made. The paper conclude by highlighting on the imperativeness of library and information professionals embracing innovations and creativity by deploying disruptive technologies in creating, re-creating and maintaining national bibliography in developing countries.*

**Keywords:** Africa, bibliography, bibliographic control, digital age, national libraries

---

## **Introduction**

Creating, recreating and maintaining a national bibliography is becoming more challenging with the penetrating force of information technology. No doubt, digital revolution has increasingly pose challenges for national libraries in developed and developing countries of the world. Undeniably, the emerging technologies have introduced new ways of maintaining a national bibliography as a function of national library. In this digital age, information and communication technology is opening up several opportunities for creating, re-creating and maintenance of national bibliography. Undeniably, librarians' live in a fast paced digital age. The growing popularity of the web influences all aspects of our lives and has changed the way we live, work, study and even thinks (Esse, 2013). In line with the demands of digital age, it is imperative that African libraries published national bibliographies in order for them to popularize their publications and enhance high level of utilization. However, since most African countries and libraries are increasingly becoming disadvantaged as a result of digital divide, it is expedient that they device new and innovative ways of creating, recreating and maintaining national bibliography

The role of librarian is undeniably changing from that of merely acquiring, organizing, storing and making information accessible to users. In the digital age, new technologies seem to have put a spanner in the works for traditional librarianship and, in doing so, the technologies have reformed librarianship, confronting it with new challenges and opportunities (Ononogbo, 2008). Librarianship has evolved over the years as a result of technological developments and the only constant factor in librarianship from the earliest times to this contemporary time is change, which is in line with the fifth law of library science that says "the library is a growing organism". According to Madu (2017), "change is a phenomenon that is inevitable for progress. It is not easily accepted in any society because of fear of the unknown. Nevertheless, with the present information powered age has placed more value and importance on the concepts of accessibility and retrieval of information (Ademodi, 2008), national libraries must ensure optimal access to resources available in its collections and one of the channels for access and retrieval is bibliography.

The twentieth century marks the dawn of a new era in bibliographic control activities in Africa which has come a long way (Igbashal & Tsegba, 2011). It is imperative for national libraries which is always the apex library of any nation to be ICT-driven in her bibliographic control practices for more effective bibliographic control practices (Akidi, 2020). No doubt, bibliographic control has become a major determinant of book accessibility and utilization and a key factor in information search, delivery and dissemination (Igbashal & Tsegba, 2011). Bibliographic control practice in the digital age is one of the avenues for bridging the digital divide between the information rich and information poor countries and engendering an information and knowledge society (Akidi, 2020). Bibliographic control is concerned with the

description of persistent products of human discourse across all sensory modes (Dunsire, 2022). Effective bibliographic control practices fundamentally boost resource sharing and networking among bibliographic agencies, and guarantee universal availability of information resource to the sensual public and global community (Akidi, 2020).

The history of recorded information is punctuated by technological inventions that have had an immediate and profound effect on human society (Dunsire, 2022). New technologies have enabled the development of electronic national bibliography since the late 1980's (Parent, 2007). The digital age has transformed the landscape and domain of information service delivery in libraries and information centers. However, the challenges witnessed are as a result of the penetrating influence of information technologies. Technological developments are introducing both challenges and opportunities for the future production of national bibliographies. As predicted by Parent (2007), the possibilities afforded by emerging technologies will inevitably have a dramatic impact on future development of national bibliographies.

Traditionally, the sector house of the memory base of the society is the library which plays a paramount role in the development of the society through its active role in all spheres of human endeavors (Oriogu, Ogbuiyi, Etu & Umahi, 2015). However, at the apex of the library structure in many countries of the world stands a national library, distinguished by the dignity of its building, the richness of its collections, and the wealth of its resources. However, the future of bibliographic recorded control is as unpredictable as the future of writing, printing, telecommunication, or the internet when they first appeared (Dunsire, 2022). It is on this premise that this paper seeks to present a discourse on challenges of creating, rec-creating and maintaining a national bibliography in digital age with reference to national libraries in developing countries. Specifically, the paper seeks to:

- a. explain the rationale for creating, recreating and maintaining a national bibliography in digital age;
- b. evaluate the status of national bibliographic control and types of digital infrastructure available for effective bibliographic services in national libraries.
- c. outline the factors limiting effective creation, recreation and maintenance of national bibliographies;
- d. identify the challenges to compilation of national bibliographies in Africa continent; and
- e. suggest strategies for effective and sustainability in creating, recreating and maintaining of national bibliography;

In generating data used for this paper, various documents were reviewed. The content analyses approach was adopted whereby documents available both online and offline were thoroughly evaluated. A thorough analysis of available documents both online and offline combined was used in the discourse.

## **Description of Basic thoughts as used in the Paper**

The basic concepts as used in this paper such as national library, national bibliography, bibliographic control and digital age are hereby explained under this section.

### ***National Library***

National library is the intellectual memory of the nation. It is the Bibliographic Control Agency of the nation and is responsible for the National Bibliographic Control in the universal bibliographic network aimed at achieving Universal Availability of Publications (Akidi, 2017). National library is responsible for acquiring and conserving copies of all significant publications published in the country and functioning as a deposit library either by law or under other arrangement. The compilation of the national bibliography, i.e., a listing of all the literary production of the country for a given period, arranged in a useful way (subject, title, author) ensures the recording and preservation of the nations documentary heritage (Ramjaun, 2009). The national library is the apex library of the nation and serves as the focal point of the nation's information, bibliographic and documentation system. It is responsible for preserving in all formats, the record of intellectual output of the nation (Akidi, 2017). If the national library of a country is chosen as the depository library, it will be the focal point for receiving the historical, literary and cultural heritage of the nation (Eddy-Ugorji, 2020).

National bibliographies are produced by some national bibliographic agency (usually the national library often relying in legal deposit legislation to acquire as complete as possible a collection of the national publishing output (East, 1999). National bibliographies have traditionally been regarded as sort of "ready-made" product for subject overview. National bibliographies are one of the key data sources in the right clearance process. Their purpose is to list every publication in a country, all publishers in a country will need to send a copy of every published work to the national legal deposit, or in other countries, a national organization will need to collect all publications (Freire & Juffinger, 2021).

### ***National Bibliography and Bibliographic Control***

National bibliography is very important for acquisition purposes. It helps the acquisition librarian to have necessary bibliographic information about what to acquire and therefore to enhance his selection. National bibliographies provide a key to a country's publication landscape. A current national bibliography is a mirror that reflects the culture of a country. By looking at the current national bibliography one is able to learn about the uniqueness of a country (IFLA Working Group on Guidelines for National Bibliographies, 2008).

National library collections cover all library materials such as books, pamphlets and printed sheets, cartographic materials, manuscripts, music, sound recordings, motion pictures and video-recordings, graphic material, three-dimensional artifacts and realia, microforms. Continuing resources or commonly known as social or electronic resources. Ejedafiru and Akporhonor (2011) believed that "national bibliographic control (NBC)" activities have always been aimed at making public available sources of information by authors such as books, journal articles, theses, archival documents, non-print media and other types of indigenous sources.

Bibliographic control consists of a series of operations that are intended to create effective list of the various sources of information. Bibliographic control entails the practical sum of operations a librarian undertakes to organize information resources and describe them so that relevant ones can be located and accessed mostly directly and efficiently in order to answer any clientele's expressed needs (Takpor, 2011). Bibliographic control is defined to mean the mastery over written and published records which is provided by, and for the purpose of

bibliography. Bibliographic control practice as defined by Akidi (2017) include: collection of legal deposit, cataloguing and classification of information resources, maintenance of cataloguing of national bibliography, indexing and abstracting services. Others include, production of bibliographic tools, establishment and maintaining of authority files, compilation and maintenance of national union catalogue of monographs and serials, and maintenance of publishing standards. It is the systematic identification of recorded information and the mechanism for gaining subsequent access to such information. Bibliographic control at the national level provides a system that makes the identification and localizing of information sources irrespective of formats within the country's borders possible (Ejedafiru & Akporhonor, 2011).

Bibliographic control therefore is the organization of library materials to facilitate discovery, management, identification and access. Digital divide has made it difficult for many people to access information when needed and equally do not even have the ability to effectively use information and communication technology infrastructure. Bibliographic control practices in the digital age have a lot to offer in information availability, accessibility and utilization, which are fundamental in any bibliographic control effort (Akidi, 2017; Akidi, 2020). This is because libraries are gradually migrating from where books are kept to digital centers (Mbagwu, Benson, & Ummunakwe, 2020).

In these modern days, the level of technological advancement premised on the different forms of information presentation and formats has impelled corporate organizations including the civil services to embrace computer network supported with other telecommunication facilities to deliver government services and programmes to the citizens (Ahmed & Adebayo, 2013). In view of the prevailing situation, the present day library and information professionals are expected to be conversant with the application of ICTs to library services (Benson, Amaechi, Onuoha, 2017). This is why today, librarians are information strategists, data managers, digital operators and information dispensers. They are behind the success story of the library automating and creativity of ICT (Odion & Adetona, 2009).

### ***Digital Age***

The digital age is characterized by the integration of information and communication technologies to every facet of human endeavors. In the digital society, there is a digital structural change, where there is increase in use of modern network technologies which is changing peoples' daily social and economic lives (Eke, 2012). The new age of information offers great opportunities and possibilities for information to be disseminated in different formats especially through technologies. The digital age offers opportunities and tools to enhance bibliographic control of information resources, so as to enhance their easy identification, accessibility and utilization (Akidi, 2020). According to Eke (2012), a digital society is that society that harbors digital citizens; a place where digital impressions made. Digital age is the era noted for extensive use of computer, as the exponential growth of literature, which could be best described as getting beyond the control of the manual system by man, require the use of machine (Akidi, 2020).

### **Rationale for Creating, Recreating and Maintaining a National Bibliography in Digital Age**

The compilation of the national bibliography, i.e., a listing of all the literary production of the country for a given period, arranged in a useful way (subject, title, author) ensures the recording and preservation of the nation's documentary heritage (Ramjaun, 2009). National bibliographies are produced by some national bibliographic agency (usually the national library) often relying in legal deposit legislation to acquire as complete as possible a collection of the national publishing output (East, 1999). National bibliographies have traditionally been regarded as sort of "ready-made" product for subject overview.

National responsibility for application and maintenance of bibliographic standard is often assigned to the national bibliographic agency due to its experience and authority. However, the relevance of the national bibliography depends upon frequency, regularity, and speed of production (Ejedafiru & Akporhonor, 2011). According to Freire and Juffinger (2011), national bibliography catalogues are created for library management, preservation and, of course, for library users. Parent (2007) contend that in the "current climate, with the increasing influx of digital material, it is imperative to reconsider the purpose of a national bibliography. According to Omeluzor, Molokwu, Dike and Anene (2022), for a long time, the library has realized the importance of providing access to information in the electronic format other than the print sources.

According to Akidi (2020), bibliographic control practices in this digital age ensures availability, accessibility and effective utilization of information resources, which requires librarians especially in bibliographic agencies to constantly review the way they work, re-invent themselves and retool so as to remain relevant and adopt good standard bibliographic control practices. Librarian's need to re-think what a national bibliography can be, not in terms of what it was or is but in terms of what it needs to be - for users, now and in the future (Parent, 2007). As pointed out by Igbashal and Tsegba (2011), much information is no doubt produced in African continent and Africa has realized that the more information you give, the more information you get and the more information you feeds in the internet, the more you gain from it; therefore, it is imperative that more importance should be accorded to bibliographic control of printed and published materials from the national level down to the level of the individual and there should be that national, collective and individual consciousness that information produced should be information preserved.

Bibliographic control practices in this era will involve application of information and communication technologies to the practices (Akidi, 2020). According to Ejedafiru and Akporhonor (2011), society today is experiencing a veritable explosion of different new information resources and formats. Therefore, the preservation of the nations' cultural heritage is a big challenge confronting libraries, archives, museums and other heritage institutions around the world (Abioye, 2013). According to Benson, Amaechi, Onuoha (2017), with the penetration of ICT to every facet of librarianship, there is a high demand for library and information science practitioners to keep abreast of new knowledge techniques and development related to their professional practices and become conversant with the changing landscape of information service delivery.

### **Status of National Bibliographic Control in Africa**

The advent of technology has brought about changes in the publishing industry. These changes resulted in a shift from traditional print publications to electronic print publications. Consequently, this has affected publications output and the format of legal deposit collections too (Eddy-Ugorji, 2020). Africa's information resources can be characterized into different categories such as information resources written and published on and about the various

countries in African continent. These information resources after being published can be compiled in the various national bibliographies of each country. However, around the world, national bibliographies are currently available to users in a variety of formats. A number of countries still publish them in traditional print or on microfiche. There is still a tremendous interest in maintaining national bibliographic control of all types of materials, but the ways to do this and the kind of information that is supplied are being revised and rethought in light of the impact of the digital environment (Parent, 2007).

With reference to national library of Nigeria, Akidi (2020) posit that there have been controversies over whether National Library of Nigeria has lived up to expectations in producing the desired result in her efforts in bibliographic control; and whether the scope, or degree of the apex library's effectiveness in carrying out the bibliographic control practices is measuring up to expectations and standards. She further affirmed that it is evident that bibliographic control practices are highly available and adopted at the National Library of Nigeria, but not satisfactory in view of the digital age, as the digital age has not deeply impacted on the National Library of Nigeria bibliographic control practices. The above situation about bibliographic situation in Nigeria as highlighted by cannot be divorced from other African countries. Nevertheless, the rapid evolution of digital technologies are creating not just new opportunities for National Library and bibliographic services in general but challenges as well (Ejedafiru & Akporhonor, 2011). According to Igbashal and Tsegba (2011), bibliographic control activities have generally developed in Africa randomly over the years. Moreover, a few African countries are lucky to have gotten retrospective national bibliographies before 1940, and it was individuals who made personal effort to compile national bibliographies for these countries.

### **Types of Digital Infrastructure for Effective Bibliographic Services in National Libraries**

ICT facilities without any contradiction is acknowledged as a dominant instrument for organization of information resources in national library as it is in other libraries. Parent (2007) predictably stated that "how do we preserve the best attributes of the existing format and standards of national bibliographies while re-shaping the concept to take advantage of new technological possibility and strategically cope with the increasingly complex media which must be captured. Evolving technologies are quickly modifying traditional library tasks purposefully and systematically, thereby, causing all facets of library services to be technologically-driven (Edam-Agbor & Robert, 2017). ICT represents an important structural part of modern society; this is why countries strive for constant progress in ICT and why it draws such significant attention (Abbas, 2017).

Africa's infrastructure is still lacking in handling large preservation of knowledge, especially resources that are in electronic form. Access to ICT facilities are a daily struggle for most institutions, that are just barely managing to maintain access to print resources to be able to meet the daily requirement for academic learning in higher educational institutions (Kanyengo, 2006). In other words, different technologies can be deployed for effective bibliographic services in national libraries.

### **Factors Affecting the Creation, Recreation, and Maintenance of National Bibliography in Africa**

The main challenge for organization is successfully managing various information sources and their content. Organizations need to know what is there, and what is current. Ultimately, however, the goal must be to utilize all of this content to maximum effect. It needs to be accessible as well as deployable, effectively and efficiently (Bernhardt, 2023). There are several factors limiting the capacity of national libraries to create, recreate and maintain national bibliography in developing countries. These among others include:

- *Funding*: Funding as pointed out by Omeluzor, Molokwu, Dika and Anene (2023) is integral for the acquisition, maintenance and use of ICT equipment. Most national libraries in Africa are confronted with the problem of inadequate funding; which at the long run hindered their activities. The funds are still inadequate to run the institution, especially, funds to purchase books and pay rent arrears, this has continue to eat into the meagre finance of the institution. As put forward by Anie and Otolu (2008), poor funding of the libraries is another factor responsible for the poor performance of library managers. Most of the libraries especially in developing countries are not adequately provided for. This can as well have adverse effect on the capacity of national libraries to create, recreate and maintain national bibliography.

- *Building*: most national libraries building are housed in non-functional building. The non-availability of space to accommodate digital infrastructure limits the extent to which national library can engage in creation and maintenance of national bibliography.

- *Lack of competent bibliographers*: most libraries lack competent bibliographers. Creating of national bibliographies is better achieved with competent bibliographers, so with shortage of competent and skilled bibliographers, the creation, recreation and maintenance of national bibliographies.

- *Noncompliance with legal deposit laws*: Most printers and publishers in Africa do not comply with the legal deposit laws. There is no set machinery for enforcing the laws. This as noted by Igbashal and Tsegba (2011) create a gap in comprehensive compilation of the national bibliography. The non-compliance with legal deposit laws is an impediment to full bibliographic control activities. This is one of the major drawbacks of compiling a comprehensive national bibliography by national libraries. According to Igbashal and Tsegba (2011), the legal deposit law is not only weak but also excludes government publications.

- *Volume of publication output*: The daily output of printed and online information resources on daily basis is creating challenges for bibliographic control activities. On daily basis, publications are churned out in both print and non-print format every seconds. Therefore keeping track of these outputs is challenging to national libraries in developing countries.

### **Strategies for Effective and Sustainable Creation, Recreation and, Maintenance of National Bibliography in National Libraries**

The key points for enhancing bibliographic control practices in developing countries include:

- *Computerization of cataloguing and classification practices*: It is expedient that bibliographic activities in developing countries should be fully computerized. As noted by Akidi (2020), the computerization of cataloguing and classification practices becomes a necessity for all libraries, especially bibliographic control agencies. This will play a significant role in the creation, recreation and maintenance of national bibliographies.

- *Creating awareness on bibliographic control practices*: Creating awareness through electronic and social media platform will attract appreciation and recognition of the value of bibliographic services in developing countries. It is important that librarians in African libraries create awareness of the relevance of national bibliographic control. This will ensure that



publications, authors and other stakeholders can effectively cooperate and comply with demands for bibliographic activities.

- *Provision of requisite tools necessary for bibliographic activities:* No doubt, bibliographers in this digital age require certain basic digital tools and the skills to utilize these tools for optional delivery of bibliography services. Bibliographic tools should be adequately provided at the various national libraries in developing countries.

- *Creation of proper distribution channels:* There is need for proper distribution channels for bibliographic control outputs. National bibliographies should be widely distributed to libraries and allied institutions so as to enhance its use and bring out added value to its production.

- *Collaborative strategies:* The future of bibliographic control will be collaborative decentralized, international in scope and web-based. In this age of artificial intelligence, it is imperative that library and information professionals collaborate with other agencies to ensure that AI tools are fully integrated into creation and maintenance of national bibliographies.

- *Upgrading staff skills and expertise through training and re-training:* In order to serve the demanding users of the digital age, librarians must be equipped with the desired technology and human expertise (Oriogu, Ogbuiyi, Etu & Umahi, 2015). It is important that librarians working in national libraries should be trained and re-trained to meet up with the demands of contemporary society.

## **Conclusion**

National libraries in both developed and developing countries by design are to act as bibliographic centres and the creation of national bibliographies till date remain as one of their core functions. No doubt, the creation of national bibliographies is essential to the services provided by national libraries globally. However, to have in-depth understanding of the publication output of any nation, one must have access to national bibliography. Therefore, if national libraries are to meet the demands of information seekers in this digital age, it is imperative that they create, re-create and maintain national bibliography in both print and non-print format. Bibliographic control activities are not without challenges, hence the need for repositioning of national libraries in this digital age..

## **References**

Abbas, K. D. (2017). Role of information and communication technology in facilitating legislative functions administration in Kano State, Nigeria. *Ebonyi Journal of Library and Information Science*, 4(2), 343-352.

- Abioye, A. (2013). Education and training in preservation and conservation of cultural heritage materials: whither Nigeria. *Nigerian Library and Information Science Review, Nigerian Library and Information Science Review*, 22 (1&2), 38 - 45.
- Ademodi, D. J. (2008). Public catalogue use at the federal university of technology, Akure and Adekunle Ajasin university library, Akungba-Akoko: a comparative study. *Gateway library Journal*, 11(1), 76-85.
- Akidi, J. (2020). Bibliographic control practices in the digital age: conceptual and theoretical framework perspective. *Library Philosophy and Practice (E-journal)*. 3998. <https://digitalcommons.unl.edu/libphilprac/3998>.
- Akidi, J. O. (2017). Bridging the digital divide: the potential role of the national library of Nigeria. *Nigerian Libraries*, 5 (1), 11 - 20.
- Akidi, J. O. (2020). Assessment of bibliographic control practices available and adopted by the national library of Nigeria in the digital age. *Library Philosophy and Practice (E-journal)* 4664. <https://digitalcommons.unl.edu/libphilprac/4664>.
- Anie, S. O. & Otolu, P. U. (2018). Diagnosis of poor performances among some library managers: The Nigeria experience. *Communicate: Journal of Library and Information Science*, 10 (1), 27 - 38.
- Benson, O. V., Amaechi, N. M. & Onuoha, C. O. (2017). Exploring available opportunities for self-development for enhanced productivity and efficiency of library and information services. *Lagos Journal of Library & Information Science*, 6 (1&2), 96 -104.
- Bernhardt, M. (2023). *AI's increasingly important role in L&D*. New York: The learning Guild.
- Dunsire, G. (2022). Bibliographic control in the fifth information age. *JLIS. It*, 13 (1), 25 - 36.
- East, J. W. (1999). Requiem for the national bibliography? The implications of internet access to national library catalogues. *Australian Academic & Research Libraries*, 30 (1), 1 – 10. DOI: 10.1080/00048623.1999.10755072.
- Edam-Agbor, I. B. & Robert, B. E. (2017). Staffing, communication and automation of academic libraries in south-south geo-political zone of Nigeria. *Ebonyi Journal of Library and Information Science*, 4(2), 406-414.
- Eddy-Ugorji, D. C. (2020). Legal deposit of electronic publications in Nigeria. *Owena Journal of Library and Information Science*, 9 (1&2), 24 - 31.
- Ejedafiru, E. F. & Akpohonor, B. A. (2011). The problems and prospects of bibliographic control in Nigeria. *Knowledge Review*, 22 (2), 91- 96.
- Eke, H. N. (2012). Creating a digital footprint as a means of optimizing the personal branding of librarians in the digital society. Proceeding of 50<sup>th</sup> National Conference and Annual General Meeting, Nigerian Library Association, pp.21-39.
- Esse, U. C. (2013). Current trends in cataloging and the challenges of a cataloguer in the digital age. *Information Impact: Journal of Information and Knowledge Management*, 4 (2), 16 - 23.

- Freine, N. & Juffinger, A. (2021). A system for using national bibliographies in rights information infrastructures. In: C., Xing, F. Crestani, and A., Rauber (Ed.) ICADL 2011.,pp. 88 - 97; Springer-Verlag Berlin Herdelberg.
- IFLA Working Group on Guidelines for National Bibliographies (2008). Guidelines for national bibliographies in the electronic age.
- Igbashal, A. A. & Tsegba, J. F. (2011). Bibliographic control of publications: the impact on African countries. *Library Philosophy and Practice (E-journal)*. 654. <https://digitalcommons.unl.edu/libphilprac/654>.
- Kanyengo, C. W. (2006). Managing digital information resources in Africa: preserving the integrity scholarship. Paper Presented at the “Bridging the North-South Divide in Scholarly Communication on Africa. Threats and Opportunities in the Digital era. Leiden, the Netherlands, 6-8 September 2006.
- Madu, C. M. (2017). Relevance of repositioning cataloguers for information management in an electronic era. *Journal of Technologies in Library & Information Management*, 3(3), 1-11.
- Mbagwu, F. C., Benson, O. V. & Umunnakwe, G. C. (2020). Library marketing strategies in federal university of technology Owerri, Nigeria. *Owena Journal of Library and Information Science*, 62 - 70.
- Odion, F. & Adetona, C.O. (2009). Information and communication technology (ICT) as a tool for effective performance by academic librarians in Edo State of Nigeria. *Communicate, Journal of Library and Information Science*, 11 (1):27-38.
- Omeluzor, S. U., Molokwu, U. S., Dika, S. I. & Anene, O. E. (2022). Factors affecting the development of e-library in universities in Nigeria. *Information Impact: Journal of Information and Knowledge Management*., 13 (2), 26 - 46. <https://dx.doi.org/10.4314/ijikm.v13i2.3>.
- Ononogbo, R. U. (2008). Strategic planning and its sustainability in Nigeria. *Communicate: Journal of Library and Information Science*, 10 (2), 1-12.
- Oriogu, C. D., Ogbuiyi D. C., Etu, V. A. & Umahi, B. O. (2015). Information society and the expected roles and services delivery systems of librarians in Nigeria. *Ebonyi Journal of Library and Information Science*, 2 (1), 91-100.
- Parent, I. (2007). The importance of national bibliographies in the digital age. Paper presented at World Library and Information Congress: 73<sup>rd</sup> IFLA General Conference and Council, 12-23 August 2007, Durban South Africa.
- Ramjaun, I. (2009). National bibliographic control in Mauritius: Issues and Challenges. *Information Development*, 25 (4), 296 - 303.
- Takpor, E. (2011). Assessment of bibliographic control of non-print information resources in the national library of Nigeria. MLS Thesis submitted to Ahmadu Bello University, Zaria.

