Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

APPRAISAL OF LIBRARIANS' SKILLS AND AWARENESS ON ONLINE CATALOGUING AND CLASSIFICATION TOOLS IN UNIVERSITY LIBRARIES IN NASARAWA STATE

Dalhatu U. Jibril, CLN, MNIM

Federal University Library, Lafia

Godwin Amidu, CLN

Nasarawa State College of Agriculture, Library

Sani Suleiman Adamu, CLN

Nasarawa State Polytechnic, Library, Lafia

ABSTRACT: This study appraised librarians' skills and awareness on cataloguing and classification tools in three university libraries in Nasarawa state. Descriptive survey design was used to determine the level of librarians' awareness on online cataloguing and classification tools, determine online cataloguing and classification skills possessed by librarians and to find out the challenges encountered by librarians while carrying out online cataloguing and classification. The population of the study comprised of 18 librarians in three university libraries under study. Close ended structured questionnaire was used as instrument for data collection. Data collected were analyzed using descriptive statistics expressed in frequency counts, percentages and mean scores. The findings of the study revealed that majority of the respondents were aware of majority of online cataloguing and classification tools such as online computer library centre bibliographic formats and standards, AACR2 /RDA, LC name authority and cutter san born table. The respondents possessed online cataloguing and classification skills such as information literacy skills, data mining skills, advanced search technique, use of KOHA and library databases. The challenges encountered by librarians while cataloguing and classifying library resources online among others include high cost of hardware and software maintenance, erratic power supply and irregular subscription. The study amongst other things recommends that librarians should be trained and re-trained on online cataloguing and classification through local and international workshops, seminars and conferences. There should be improved funding of ICT facilities and librarians should be counseled in the area overcoming computer phobia.

KEYWORDS: online cataloguing and classification skills, librarians, university libraries.

INTRODUCTION

Almost every discipline and endeavor in the universe today had moved away from traditional ways of operations to the application of ICTs in the conduct of their activities. University libraries are not left out in the revolutionary drive and initiative. The change has resulted in the

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

emergence of e-library, online cataloguing and classification (Whong, 2014). Krubu and Osawaru (2011), defined university library as an academic library being attached to university and is vested with the role of information services delivery to support learning, teaching and research activities of the parent institution. Globally, university libraries render several services in line with the cardinal objectives of university education. Notable among the services is technical service. This consists of cataloguing and classification which involves the process of making available the library's collection to the users of the library by providing bibliographic information about the available library materials. This in the long run, enable library users to identify and locate library materials easily and quickly (Sokari, 2017). Expectedly, university libraries provide access to information resources in all its forms and formats employing multiple retrieval devices for locating specific information. Jibril (2013) stated that the mission and the vision of every library is to provide accurate, timely, current and reliable information resources that would cover teaching, learning and research needs of staff and students.

Several techniques are employed in the organization of information resources in university libraries. These include cataloguing, classification, indexing and abstracting. However, cataloguing and classification are the twin hub of information organization in conventional libraries across the globe. Aina (2012) perceived cataloguing as a complex process used in providing access to materials available in a library. Similarly, Adeyemi (2002) viewed cataloguing as the correct and accurate description of the physical properties of a document, whether it is print, non-print, audio-visual or both. On the other hand, he described classification as an important intellectual component of the library profession which deals with the correct placement of the document within the collection with the aid of a knowledge scheme. Cataloguing and classification are the twin important information organization pillars on which the practice of the library profession rest. (Edoka, 2000).

At the heart of information organization are the librarians. They are key actors and drivers in the organization of information resources in university libraries. Jibril (2013) view librarian as a professional that specializes in virtually all the aspect of library activities such as acquiring, organizing, promoting and disseminating a wide scope of knowledge or information resources to meet the diverse needs of its users. The roles of librarians as outlined by Jibril (2013) include anticipating academic needs and trends, ensure library resources are used as much as possible, promoting the use of library through display or exhibition of cultural and academic resources, keeping up-to-date with newly and accurate released of publications in order to select library resources, undertaking readers development activities which may or may not be directed at a specific orientation to the users, developing the use of ICT to improve services delivery by making sure e-library function effectively, dealing with enquiries and assisting library users in accessing ICT and other resources, stock maintenance including weeding out of old resources.

One of the ground breaking innovations in technical services in university libraries is the adoption of online technology in cataloguing and classification. Okojie (2008) aptly acknowledged the impact of online technology on cataloguing and classification and noted that online cataloguing is more efficient information storage and retrieval system where efficient

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

telecommunication networks and efficient methods of storage of large machine readable records (MARC) is made possible through personal computer. The internet has globally linked the world's online cataloguers together and has provided them with a relatively similar interface. Lon (1997) noted a number of ways cataloguers are using the internet to enhance their cataloguing practices. Firstly, cataloguers facilitate search in other catalogues and to communicate with other cataloguers. This has enabled better and faster copy cataloguing and authority work for many libraries, across the globe. Secondly, it is also cheaper for smaller or underfunded libraries who might not be able to acquire the latest editions of classification schemes to check other experienced cataloguers. Thirdly, cataloguers can now share information in a wide spectrum of ways which can speed up their work and promote cooperation. The overall effect of this communication revolution according to Oketunji (2007) has drawn the professionals closer together as a working community. This has necessitated numerous advantages to the system.

According to Zaid (2008), the advantages of cataloguing and classification online cannot be over emphasized. The author emphasized that cataloguers and classifiers who have embraced the technology are witnessing the fast extinction of the "backlog syndrome" as it is no longer common, to see newly acquired information resources held up in the cataloguing unit for months. Several computer based online cataloguing tools are available and are being used to cataloguing and classification of new arrivals in university libraries across the globe. These include networked computers, internet, online computer library centre (OCLC), library of congress classification online, classification web and cataloguing calculator etc. In view of this, Yakubu (2014) asserted that bibliographic information/description such as, statement of responsibility, ISBN or ISSN, title, edition, publication description (publishers and year of publication), classification type, call mark, series, target audience/location of materials, barcode number are entered into the MARC and saved to build up the OPAC as part of the online cataloguing and classification process.

Oketunji (2007) traced the origin of computerization in cataloguing to the 1960s when the library of congress introduced computers to its operations. The justification for the adoption of online cataloguing and classification in the 21st century university library is principally aimed at removing the sluggishness that accompanied manual cataloguing and classification. Affirming this, Madu (2004) posits that it is the problems associated with manual cataloguing and classification that ICTs has come to eliminate. In addition, Arua (2005) stated that information and communication technology (ICTs) has indeed brought a revolution in all operations carried out in technical services department of the library. He stated that cataloguers and classifiers make entries directly into computers, saving the time and energy that would have been used for copying on the sheets, erasing, re-copying and typing on the catalogue cards. Also, multiple copies of titles, which are sometimes scattered because of error made in classification are brought together through the online public access catalogue OPAC. Mosuro (2000) revealed that computers have tremendously offered assistance in the processing aspects of traditional library operations. The author further asserts that ICT has turned the world into a "global village" and everyone to an electronic neighbor. As a result, it is easy for classifiers to gain access to the

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

library of congress and copy the call numbers of the materials they have classified. This makes it possible for hundreds of books to be classified in a day as against the backlogs, which characterized manual classification. Despite the derivable benefits of ICTs application in online cataloguing and classification in university libraries in Nigeria. Observably, some librarians are not fully aware of the tools used for online cataloguing and classification and appeared not to possess the requisite skills for carrying out online cataloguing and classification in university libraries. Several studies have been conducted on online cataloguing and classification. However, no study was conducted online cataloguing and classification in the three university libraries under study. It is against this backdrop that this study seeks to appraise librarians' skills and awareness on online cataloguing and classification tools in three university libraries in Nasarawa state.

Statement of the Problem

The emergence and application of the internet in library operations and services make it compelling for librarians and libraries to brace up to the challenges of timely and accurate packaging of information resources. Online cataloguing and classification is one of the innovations brought by internet in university libraries. Online cataloguing and classification have been adopted long ago by librarians in advanced clime having recognized its potentials. However, it appears many libraries and librarians are adamant, slow or yet to embrace online cataloguing and classification in university libraries in Nigeria.

Observably, the challenges associated with conventional cataloguing and classification include undue delays, tediousness, complexity, boring, inability to keep track of records with ease and duplication of work among others problems. The dynamism of online cataloguing and classification had dramatically impacted the productivity and skills of cataloguers and classifiers in university libraries. Despite these enormous advantages, it appears many librarians in university libraries have continued to display phobia and apathy towards these innovations leading to inefficiency in technical services provision in university libraries. It is against this backdrop that this study seeks to appraise librarians' skills and awareness on online cataloguing and classification tools in three university libraries in Nasarawa State. This is a significant knowledge gap that this study seeks to fill.

Objectives of the Study

The specific objectives of the study are:

- 1. To find out librarians' awareness on online cataloguing and classification tools used for online cataloguing and classification in the university libraries.
- 2. To determine the online cataloguing and classification skills possessed by librarians in the three university libraries.
- 3. To identify challenges encountered by librarians in carrying out online cataloguing and classification of library resources in the university libraries.

Research Questions

The study was guided by the following research questions:

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

- 1. What is the librarians' awareness level on online cataloguing and classification tools used for cataloguing and classification in the three university libraries?
- 2. What online cataloguing and classification skills do librarians possessed in the three university libraries?
- 3. What are the challenges encountered by librarians while carrying out online cataloguing and classification of library resources in the three university libraries?

REVIEW OF RELATED LITERATURE

Several authors have written on the online cataloguing and classification in libraries across the globe. Okojie (2008) described the impact of ICTs on cataloguing and classification. Zaid (2008) stated that the advantages of cataloguing and classification online cannot be over emphasized and noted that cataloguing is fast witnessing the extinction of the "backlog syndrome" as it is no longer common to see newly acquired information resources, held up in the cataloguing unit for months. Khurshid (2003) as cited by Adeleke (2009) revealed that libraries are showing clear preference for electronic versions of these tools because of their ease of use and update, better display, and lower cost. ICTs have eased locating and ordering of materials through online technology and contributed to staff improvement and growth as both professionals and supports personnel become involved in discussions and databases via the internet (Groves, 2005). Similarly, Arkoful (2007) noted that information and communication technologies (ICTs) have accelerated the rate at which library services including online cataloguing and classification are carried out. Chandrakar and Arora (2009) also reported the impact of the use of internet in cataloguing and classification process in Indian university libraries.

Online Cataloguing and Classification tools

Online cataloguing and classification involves the use of various tools. The most commonly tools used are OCLC bibliographic formats and standards; cataloguing calculator; OCLC-MARC coding guidelines; library of congress online catalog; MARC21 concise format bibliographic data; cataloguers reference shelf; a manual and practical guide; cataloguers toolbox; library of congress understanding MARC; cataloguing guidelines and resource description access (RDA)(Adeleke, 2009). In a related development, Adeleke and Olorunsola (2007) as cited by Adeleke (2009) stated that library of congress online catalogue is being used for cataloguing and classifying library resources at Redeemer's university library. Zaid (2008) as cited by Akinniyi (2009) itemized a number of web-driven facilities that cataloguers can adopt to make their work easier, more interesting and efficient. They include: OCLC, world-cat, library of congress online catalog, Dewey Decimal online catalog, national library of medicine catalog, and national agricultural library catalog.

Adeleke and Olorunsola (2009) also stated that cataloguing calculator was developed by Kyle Banarjee and is very useful tool that allows searching and display of LC Cutter numbers, Geographic Cutter numbers, Geographic Area Codes, Country Codes, Language Codes, AACR2 abbreviations and MARC variable fields information. Formson (1999) revealed there was over a

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

100% increase in the number of books classified at the University of Botswana as a result of the application of online cataloguing and classification technology.

Steps involved in the use of library of congress online catalogue.

The Basic Search which offers the largest variety of direct search option can be accessed through the following steps:

• Click on your internet explorer

• Type in the library of congress url.

(http//catalog.loc.org)

Click on basic search

• Choose one search word in the search textbox

Choose your search strategy either by title,

author/creator, subject, ISBN/ISSN

• You have an option to choose your display latitude by clicking number records per page 25, 50, 75 or 100 records per page.

• Then click on begin search.

Skills Required for Online Cataloguing and Classification

The basic skills required are computer literacy skills, information literacy skills, data mining skills, conventional cataloguing and classification skills etc. According to Igwe (2011), computer literacy refers to the level of computer knowledge of an individual and the degree to which such knowledge can be used in problem solving. It is also seen as the ability to achieve the desired outcome through a computer. Zaid (2008) stated that computer literacy comprised of tripartite pars; understanding the basic computing principles, knowing how to use at least one computer operating system, and proficiency with specific software.

Challenges associated with online cataloguing and classification

The challenges encountered by librarians in adoption of online cataloguing and classification are enormous. Some of the challenges as outlined by (Daniel 1999) include Problems of power failure, internet down time and slow cyber-speed, lack of skill in using the internet on the part of library staff, array of cataloguing software, choice of library software, shortage of manpower, inadequate training programmes for cataloguers and classifier, problem of harrowing experience of completing of online subscription forms, purchasing credit cards and the risk of internet fraud.

METHODOLOGY

Descriptive survey design was used for the study. Nworgu (2015) stated that descriptive survey is a study that describes in a systematic manner the characteristics, features or facts about a given population. It is interested in describing certain variables in relation to the population. It is concerned with a description of events as they are. The population of the study comprised of 18 Librarians in the three university libraries. Structured ended questionnaire was used for data collection. In all, 18 copies of the questionnaire were distributed and 15 were filled and returned, representing 94% response rate. Descriptive statistics expressed in frequency, percentage and mean scores were used in analyzing the data collected.

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

Table 1 Level of Librarian's Awareness on Online Cataloguing and Classification Tools. N = 15

S/N	Online cat. & class. Tools	Bing. U.K. lib.	FUL. Lib.	NSUK. lib	F	(%)
1	OCLC Bibliographic formats & standards	5(33.3)	5(33.3)	5(33.3)	15	100
2	AACR II/RDA	5 (33.3)	3(20)	2(13.3)	10	67
3	Cataloguing, electronic resources: OCLC-MARC coding guidelines	4 (26.6)	4(26.6)	2(13.3)	10	67
4	Library of congress online catalog	4 (26.6)	5(33.3)	2(13.3)	11	73
5	MARC21 format for cataloguing data	4 (26.6)	4(26.6)	2(13.3)	11	73
6	Concise Cataloguing manual	1(6.66)	3(20)	3(20)	7	47
7	Cataloguing internet resources: A manual and practical guide	5 (33.8)	5(33.3)	2(13.3)	15	100
8	Web Dewey	0 (00.0)	1(6.67)	5(33.3)	6	40
9	Library of congress program for cooperative cataloguing policy statements (LCC-PCCPSs)	2 (13.3)	3(20)	0(00.0)	9	66
10	Library of Congress (LC) Name Authority	2 (13.3)	4(26.6)	4(26.6)	10	67
11	KOHA	3 (20)	4(26.6)	3(20)	10	67
12	LC Cutter Sanborn Table	5(33.3)	5(33.3)	0(00)	10	67

Responses in table 1 on Librarians' awareness of online cataloguing and classification tools revealed that all the respondents were aware of OCLC Bibliographic formats and standard as well as cataloguing internet resources: A manual and practical guide. This is followed by library of congress online catalogue and MARC21 format for cataloguing data with frequency score of 11 each, representing 73%. 10 respondents, representing 67% were aware of AACR II /RDA, OCLC-MARC coding guidelines, LC name authority, KOHA and LC cutter sanborn table. Conversely, 6 respondents representing 40% indicated they were aware of the Web Dewey.

Table 2 Online Cataloguing and Classification Skills possessed by Librarians in the University Libraries studied

Key: HP- Highly Possessed; FP- Fairly Possessed; LP - Least Possessed; NP - Not Possessed.

N	= 1	l 5.

S/N	Items	HP	FP	LP	NP	MEAN	Decision
1	Information literacy skills	11	2	1	1	3.5	Accepted
2	Computer literacy skills	10	3	2	Nil	3.5	Accepted
3	Data mining skills	11	3	2	Nil	3.4	Accepted
4	Internet skills	11	1	2	Nil	3.4	Accepted
5	Use of software	8	5	1	1	3.3	Accepted
6	Use of uniform resource locator	2	1	2	10	3.5	Accepted
7	Use of KOHA	11	2	1	1	3.5	Accepted
8	Use of online cat & class databases	5	5	4	1	3.0	Accepted
9	Advanced search techniques	6	5	2	2	3.0	Accepted
10	Ability to check search history of books	3	2	2	8	2.0	Rejected

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

	catalogued and classified						
11	Keyword search technique	9	3	1	1	3.2	Accepted
12	Subject search technique	6	3	3	4	2.6	Accepted
13	Search of library databases	4	4	5	2	2.6	Accepted
14	LC cutter sanborn table	6	4	5	Nil	3.0	Accepted

Out of the 14 online cataloguing and classification skills listed to elicit response on online cataloguing and classification skills possessed by the librarians in the three university libraries under study in Table 2. Librarians possessed 13 skills with mean scores ranging between 3.5 and 2.6. This is based on the 2.50 mean benchmark decision limit, in a 4 point rating scale. The respondents do not possessed the skill for checking the history of books catalogued and classified with a mean score of 2.0. This implies the majority of the respondents under study possessed the requisite skills for online classification and cataloguing in the libraries under study.

Table 3 Challenges Encountered by Librarians While Carrying out Online Cataloguing and Classification in the university libraries studied N-15

N = 1	15.				
S/N	ITEMS	Bin. Uni. K. lib	Ful. Lib	NSUK. Lib	TOTAL F(%)
1	High cost of hardware & software maintenance	5 (33.3)	5(33.3)	5(33.3)	13(87)
2	Computer phobia	5 (33.3)	3(20)	2(13.3)	10(66.6)
3	Inadequate funding of ICTs	4 (26.6)	4(26.6)	2(13.3)	11(73.3)
4	Poor information literacy skills	1(26.6)	1(33.3)	1(13.3)	3 (20)
5	Insufficient number of professional cataloguers and classifiers	4 (26.6)	4(26.6)	2(13.3)	10(66.6)
6	Erratic power supply	6(6.66)	4(20)	3(20)	13(86.6)
7	Irregular subscription	5 (33.8)	5(33.3)	2(13.3)	13(86.6)
8	Poor training and retraining of librarians on online cataloguing &classification	0 (00.0)	1(6.67)	5(33.3)	4(26.66)
9	Internet network failure	2 (13.3)	4(26.6)	4(26.6)	9(60)
10	Poor computer literacy skills.	3 (20)	4(26.6)	1(6.66)	7(46.66)

Responses in Table 3 on challenges encountered by librarians while carrying out online cataloguing and classification revealed that high cost of hardware and software maintenance, erratic power supply and irregular subscriptions were the dominant challenges faced by the librarians with frequency scores of 13 each representing 87%. This is followed by inadequate funding of ICT, having frequency of 11 (73.3%). Other challenges faced include computer phobia 10 (67%) and internet network failure 9 (60%).

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

MAJOR FINDINGS OF THE STUDY

- 1. The findings on librarians awareness of online cataloguing tools showed that they were aware of OCLC bibliographic formats and standard, cataloguing internet resources: A manual and practical guide, library of congress online catalogue, MARC21 format for cataloguing data, AACR II /RDA, OCLC/MARC coding guidelines, LC name authority, KOHA and LC cutter sanborn table. On the other hard, Minority of the respondents were aware of the web Dewey.
- 2. Findings on online cataloguing and classification skills possessed by librarians in the university libraries under study revealed they possessed information literacy skills, computer literacy skills, data milting skills, internet skills, use of software, use of uniform resource locator, use of KOHA, use of online cataloguing and classification databases, advanced search techniques, keyword search techniques, search of library databases and use of LC cutter sanborn table. On the other hand, majority of the respondents do not possessed the skills to check the search history of books catalogued and classified.
- 3. The major challenges encountered by librarians while cataloguing and classifying online include high cost of library hardware and software maintenance, erratic power supply and irregular subscription. Other challenges include inadequate funding of ICT, computer phobia and internet network failure.

CONCLUSION

Based on the findings of this study, it could be concluded that online cataloguing and classification in university libraries has brought dramatic innovation in technical services. It is evident that librarians are aware of the tools used for online cataloguing and classification. It is expected that they will optimally use these tools in order to ensure timely and accurate processing of new arrivals, so as to make them easily accessible and retrievable. The challenges encountered by librarians while cataloguing and classifying online have been identified, they must be addressed with all sense of urgency, so that librarians can rightly apply their skills. This would not only save time and energy of both users and staff but will minimized the incidence of backlog, and sluggishness which characterized manual cataloguing and classification of library resources.

Recommendations

Based on the findings and conclusion of this study, it is hereby recommended that:

- 1. Librarians should be trained and re-trained on practicals in online cataloguing and classification through sponsorship to attend workshops, seminars, conferences at both local and international fora.
- 2. University library managements and relevant authorities should re-tool their libraries with the state- of- the art ICT facilities, internet connectivity in order to enhance effective online cataloguing and classification of library resources.

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

- 3. There is the need to keep a manual backup records of books catalogued and classified, since some of the respondents do not possessed the skills to check the search history of books that were previously catalogued and classified.
- 4. There is the need to sustain the use of KOHA, online databases, library databases and LC cutter sanborn table. This is to enhance the information literacy skills, computer literacy skills, data mining skills and internet skills of librarians.
- 5. There is the need for improved funding of ICTs facilities in university libraries.
- 6. There is the need of increased bandwidth to ensure sustained internet network connectivity and coverage.
- 7. Librarians should be periodically admonished to overcome computer phobia. Computers are work tools and not magical technological tools.

References

- Akinniyi, A.A. (2009). Use of online cataloguing tools in Nigerian Libraries: what cataloguers have to say: A paper presented at the 29th Annual Seminar/workshop of Nigerian Library Association Cataloguing classification and indexing section. 26-30th October, 2009.
- Adeleke, A. A & Olorunsola R. (2007) Cataloguing and classification online: The experience of Redeemer's University Library. *The Electronic Library*; 25 (6): 732.
- Adeyemi, M.N. (2002). Cataloguing and Classification and the Challenges of new Technologies in Nigerian Libraries in the Next Millennium. Proceedings of Selected Papers Presented at various Workshops of the Cataloguing, Classification and Indexing Section. Nigerian Library Association, Lagos 1-5.
- Adeleke, A.A & Olorunsola R. (2009) ICT and Library Operations: Further on the Online Cataloguing and Classification Tools and Techniques in Nigeria Libraries.
- Aina, L. O. (2012). Mentoring in Cataloguing: Bridging the gap between the young and the adult. Journal on annual seminar/workshop theme: Repositioning the cataloguer for information management in a network environment 21st to 26th October, Benin City, Edo State. *In the Nigerian Library Association Cataloguing, Classification Indexing section* .32nd: 88-93.
- Arkorful, M.A. (2007). Implementing online catalogues in African academic libraries: The collaborative role of international partners in improving access to valuable research materials. World library and Information Congress: 73rd IFLA General Conference and council, 19-23 August,2007. Durban, South Africa. Retrieved on 09/09/09from"http://www.ifla.org/iv/ifla73/index.htm" HYPERLINK
- Arua, U (2005). Computerization of Library Operations some Necessary Considerations in the Information Age: Proceedings of Selected Papers of the Cataloguing, Classification and Indexing Section of the Nigerian Library Association 2001 2002. 111.
- Bamidele, O & Samuel, O.O (2017). Influence of Computer Literacy Skills on Online Cataloguing by Librarians in Ekiti State university, Nigeria. Library Philosophy and Practice (e Journal) 1593. Available at http://digitalcommons.unl.edu/libphil/pract/1593
- Chandrakar, R. and Arora J. (2009) copy cataloguing in India: appoint of view the Electronic library (in press).?

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

- Daniel, J.O. (1999), "Electronic networking in the emerging information society: the internet at a glance. *Nigerian Libraries*. 33 (1).
- Denga and Ali (2002). An introduction to Research Methods and Statistics in Education and Social Science: Jos, Savanna Publishers Ltd.
- Edoka, B. E. (2000). *Introduction to Library Science*. Onisha; Palma publishing and Links Company.
- Formson, J.N (1999). The Impact of Information Technology on the Cataloguing Process of the University of Bostwana Library. African Journal of Library, Archives and Information Science 9 (1): 17 26.
- Groves, D. (2005). Online Work tools: a Look at 20 Academic Libraries Technical Services.A Paper Presented at the Seminar / Workshop of Nigerian Library Association of Cataloguing, Classification and Indexing held at Lokoja.
- Igwe, K. N. (2011). Essential of Cataloguing and Classification for libraries and library schools. Jibril, A. (2013). Public libraries and the librarians: making a Difference in information and communication technology (ICT).
- Khurshid, Z (2003) Electronic tools for cataloguing OCLC Systems and services, 19 (1): 23-27.
- Krubu, D.E. & Osawaru, K.E. (2011). The Impact of Information and Communication Technology (ICT) in Nigerian University Libraries. *Library Philosophy and Practice Journal(e-journal)* paper 583. Retrieved from http://digitalcommons.unl.edu/libphilprac/583
- Lon, C.E (1997). The internet's Value to Catalogue: Result of a Survey. Cataloguing and Classification Quarterly 23 (3&4): 65-74.
- Madu, E.C (2004). Technology for Information Management and Services: Modern Libraries and Information Centres in Developing Countries. Ibadan: Evi Coleman
- Mosoni, T. (2000). Potential Impact of New Technology on Libraries and the Library Users In Ajibola B. and Tiamiyu M (ed) Library Automation for the information Age.
- Nworgu, B.G. (2015). *Educational Research Basic Issues and Methodology*. 3rd Ed. Nsukka: University Trust Publishers. 98 99.
- Oketunji, I. (2007). Approach to Cataloguing in Multi Campus/ multi site libraries in the ICT Age In Challenging Work Patterns of Cataloguers, Classifiers and Indexers in the era of ICT. Annual Serminar and Workshop of cataloguing section of Nigerian Library Association.
- Okojie (2008). The future of cataloguing in the era of Information and Communication ICT Technologies trends and issues. Proceedings of selected papers of the cataloguing classification and indexing section of the Nigerian Library Association,October,26-November3, 2008, Ilorin Kwara State. 1-16.
- Sokari, V. (2017). Application of Information and Communication Technology Facilities in technical services operations at Bayero University library Nigeria. Journal of information and knowledge management..8(1): 52-58 ihttp://www.informationimpact.org/.
- Whong, F.M (2014). Application of Information and communication technology (ICT) to management of library and information Resources in Selected Nigerian Federal University Libraries (Master's Thesis, Ahmadu Bello University, Zaria, Nigeria). Retrieved from http://kubanni.abu.edu.ng:8080/jspui/bitstream/12345

International Journal of Library and Information Science Studies

Vol.7, No.4, pp.49-60, 2021

Print ISSN: 2059-9056 (Print)

Online ISSN: 2059-9064(Online)

Yakubu, H. (2014). Library automation in Federal University Dutsin-ma Library, Katsina State, Nigeria. *Nigerian Libraries*: 47(1): 91-101.

Zaid, Y.A (2008) Cataloguing and classification using the internet. Proceedings of Selected papers of the cataloguing, classification and indexing section of the Nigerian Library Association, October26- November, 2008. Illorin, Kwara State. 139-16.