
New Media Technologies in Library Services Delivery in University Libraries in Bayelsa State

Catherine I. OGBARA

Main Library, University of Africa, Toru-Orua, Bayelsa, Nigeria /

Catherine.ogbara@gmail.com

Abstract

The study investigated “New Media Technologies in Library Services Delivery in University Libraries in Bayelsa State”. It adopted a descriptive research survey with a population of 54 librarians drawn from four university libraries in Bayelsa State. A total enumeration sampling technique was used to select all the respondents. A questionnaire was used to gather the data. 54 copies of the instrument were distributed by the researcher and a research assistant and were retrieved and found valid for the analysis. The data was analyzed using simple percentages and presented in tables. The study revealed that new media used by the respondents were Facebook, WhatsApp, Twitter etc. These media were used in delivering library services such as user orientation, creating awareness, posting library events and overdue reminders among others. The study further revealed that relevant skills such as digital literacy and ICT were used in delivering library services with the new media. Inconsistent power supply and poor internet connectivity were identified as challenges. The study, therefore, recommended that the Government should ensure that the university libraries have a stable power supply and internet connection for proper utilization of new media in library services delivery.

Keywords: New media Technologies, Library Services, Services Delivery.

Introduction

University libraries support the community by delivering services to meet the teaching, research and learning needs of staff and students. They play a key role in the educational system of their parent institutions by providing a variety of services to a wide range of users in the academic environment. University libraries acquire, process, manage and disseminate information resources through which their parent institutions conduct research and produce high-level manpower. Library services delivery was done manually and the library materials were primarily in print format. These services were only available during opening hours. Most times, the information resources available in the library are inadequate to meet the information that is needed by patrons.

Many of the services delivered by librarians fall short of the role they play as information providers. There is no doubt that the traditional library and information services need improvement as a result of their limits and inadequacies. As a result of this, university libraries have incorporated new media technologies to improve their service delivery to remain relevant and to meet the information needs of their patrons. New Media refers to content made available using different forms of electronic

communication made possible through the use of computer technology. The prevalent examples of new media include internet-based concepts like, websites and blogs, social media and sharing platforms, chat rooms and integration of digital data with telephones, such as internet telephony. These new media are used for library services delivery with content available on-demand through the internet. They are used to compose, create, produce, deliver and manage media including audio, video, images, information, interactive media virtual environment etc. They are also referred to as Web 2.0 and encompass communication technologies, such as social networking, virtual worlds and other social media forms etc.

The proliferation of new technologies has influenced the information-seeking behaviour of library users. Thus, library and information systems, resources, and services have transformed as well to effectively and efficiently respond to the anticipated and unexpected changing circumstances and expectations of the time. This is required to cope with unforeseen developments as well as to ensure relevance, appropriateness, affordability and enhancement of performance, productivity, effectiveness and efficiency in library and information services. As a result, the adoption of new media technologies to accommodate the change and transformation in library and information services become imperative. New media technologies are referred to as a generic term used to describe all forms of computer-based or web-related communication characterized by creative participation and interactive interfaces such as mobile phones, social networking sites and virtual worlds. New media technologies are also referred to as any type of application meant to transfer information via digital techniques, computerized systems or data networks.

New media technologies according to Zakari (2018) are new ideas, processes, procedures, methodologies, systems, phenomena, facilities, instruments, infrastructures or whatever that is strategically modified, transformed, provided or introduced to transform repositioned, sustained, ease, support and enhance services delivery. They are aimed at modifying and improving the existing systems. They include library automation such as KOHA, Evergreen and NewGenLib, OneDrive, cloud computing, digital libraries such as Fedora and enprints, metadata, barcode reader and Radio Frequency and Identification (RFID) technology, electronic information resources (e-book, e-journals, etc.), web 2.0 (Facebook, Twitter, WhatsApp, LinkedIn, etc.). email, etc. They encompass the technologies used in the provision of library and information services. Library and information services are those professional services rendered in the library to promote literacy in society. They include current awareness services, selective dissemination of information, digital reference services, electronic document delivery services, user orientation services, cataloguing and classification services, etc. These services are rendered by the university libraries to enhance learning, education, research, and personal development. University librarians all over the world need digital literacy skills; in managing digital resources, web literacy skills, digital marketing and communication skills and customer service skills etc. digital literacy skills will help library professionals improve their overall library and information services delivery for

resource sharing, social networking, instant messaging, blogging and host of other digital library services-oriented activities. However, despite the benefits derived from using these new media in promoting library services, there are challenges encountered by librarians in utilising new media technologies for effective service delivery.

Statement of the problem

Services delivery is the primary function of any academic library. Many of the library services in university libraries in Nigeria are delivered manually and the delivery of these services through traditional means has been cumbersome and time-wasting. Traditional library services restrict users to the available resources available within the library collections only. Moreover, access to information is limited to print resources and this places the patrons at a disadvantage with limited information resources. There is no doubt that the traditional library and information services need improvement as a result of its limitations and inadequacies. There is a need for re-designing the services to meet the demands of their users remain relevant and retain their place as information providers in this technology age. The inadequacies of traditional library services prompted university libraries to adopt new media technologies in library service delivery. The proliferation of new technologies has influenced the information-seeking behaviour of library users. Thus, library and information systems, resources, and services have transformed as well to effectively and efficiently respond to the changes and expectations of the time. However, observation showed that librarians in the university libraries in Bayelsa state are aware of the adoption of these new media but are not effectively utilizing them for library service delivery. Therefore, against this backdrop, this study investigated new media technologies in library service delivery in university libraries in Bayelsa state.

Purpose of the Study

The study investigated new media technologies in library services delivery by librarians in university libraries in Bayelsa State. The specific purposes were to:

1. Find out the new media Technologies used by librarians in service delivery in university libraries in Bayelsa State.
2. Examine library services delivery with the new media technologies by librarians in university libraries in Bayelsa State.
3. Find out the skills required by librarians in the use of new media technologies in library service delivery in university libraries in Bayelsa State.
4. Find out the challenges encountered by librarians in the use of new media technologies in library service delivery in university libraries in Bayelsa State.

Literature Review

Services Delivery by Librarians in university libraries

Universities are known for producing manpower for the economy of the nation. For the successful completion of university academic and professional programmes, the university libraries support both the students and staff to achieve their purposes by

providing information resources and quality services. This is achieved through the core functions being performed by the staff of the libraries which are: collection development, cataloguing, circulation, dissemination and preservation of information resources as well as setting up a sustainable platform for ICT adoption and implementation towards the university education system. According to Aina, (2014) opined that library services were been rendered by librarians and such services include: library notices, Online Public Access Catalogue (OPAC), loans, reservation, registration, dissemination of information, current awareness and reference service. Other library services are library orientation, information literacy programmes and electronic resources. According to Husain and Nazim's (2015) study librarians rendered services such as public access catalogues, electronic resources, physical and web-based reference services and online general services to their users. Eze and Uzoigwe's (2013) study on library service provision revealed that services such as user education, user orientation, reference, Internet, bibliographic, electronic databases, reprographics, interlibrary loan and exhibition and display services were rendered to library users. In the same vein, Ishola (2014) asserted that the university libraries studied rendered translation, registration, abstract and indexing, documentation, and current awareness among others. Services delivered to the users could be through conventional, virtual or hybrid methods. Abubakar (2011) stated that library services are delivered to users conventionally or electronically. Alabi, Nduka and Olatise's (2011) investigation on service provision revealed that the majority of the respondents' 38 percent indicated that they rendered library orientation, followed by 31 percent who rendered library education programme, 23 attested to training on electronic resources while six percent rendered library outreach programme.

NewMediaTechnologiesUse by Librarians for Service Delivery in University Libraries

New Media Technologies often referred to as Web 2.0 encompass a wide variety of web-related communication technologies, such as blogs, Wikis, online social networking, virtual worlds and other social media forms. These social media platforms have become an increasingly familiar tool employed by university libraries to market their resources and services to current and prospective patrons (Collins &Quan-Haase, 2012). Social media are internet-based platforms which enable people to generate, distribute or exchange information in different forms such as text, images, audio and videos. Bashorun et al., (2018) described social media as a communication forum that allows users to electronically disseminate information and share knowledge. Social media involves the use of network applications to convert one-way communication into an interactive online conversation between two or more people (Dixon, 2012).

Collins and Quan-Haase (2012) investigated the adoption and usage patterns of social media tools by academic libraries in Canada. The focus was on Facebook, Twitter, YouTube and Flickr as these were seen as the most common social media tools in Canada. The study showed that Twitter was the most used social media tool among

academic libraries and was followed by Facebook. YouTube was the least used. Monagle and Finnegan (2018) reported that 85% of the respondents agreed that they used social media for other purposes which included the promotion of library services. The respondents used Twitter, followed by Facebook while the use of Google+ and LinkedIn by the respondents was on average. Weerasinghe and Hindagolla (2018) revealed that the majority of the respondents (78.4%) indicated the use of personal account social media in the workplace. The authors also found that librarians used Facebook (90%), LinkedIn (55%), Twitter (17%) and ResearchGate (eight percent) in their workplace while five percent did not use any social media.

Zohoorian-Fooladi and Abrizah (2014) revealed that Facebook was used by librarians in the three academic libraries studied. However, the results also revealed that social media spaces such as Blog, YouTube and Twitter were used at a low level. A similar investigation carried out by Chu and Du (2012) revealed that Facebook and Twitter (63%) were found to be highly used by librarians among the eleven social media spaces listed. Closely followed social media spaces used by the librarians were Instant messaging (44.4%) and Blogs (26%) while other social media spaces 5 were used at less than 19%. Anwyll and Chawner (2013) revealed that Facebook and Twitter were found to be the major social media spaces used by librarians to communicate with library patrons. In the study of Xie (2014) also revealed that among the ten universities studied, three of them used social media space such as Blogs, Facebook, Flickr, Pinterest, Podcasts, RSS feeds, social news websites, Twitter, and YouTube to deliver services to their users. The findings also showed that the frequencies of social media use were indicated as hourly, daily, weekly, and monthly.

Baro, Idiodi, and Godfrey (2013) in their study on awareness and use of social media by librarians in university libraries in Nigeria found that social media space such as Facebook was highly used by librarians while the least used social media space was Flickr, RSS feed, podcast and social bookmarking. In the Nigerian context, the study of Omeluzor et al., (2016) on social networking tools in library service delivery in South-East academic libraries reveals that some librarians used social media in libraries for delivery of library services. Ogunbodede and Ivwighreghweta (2020) investigated librarians' use of social media in promoting effective library service delivery in university libraries in the Edo and Delta States. The findings of the study revealed that the majority of librarians mostly use Facebook and WhatsApp platforms to provide library services. It was also discovered that they use these social media platforms to create awareness about library resources and services and also to share library news and events.

Challenges of New Media Use for Service Delivery

Librarians in the course of rendering library services have encountered various challenges due to the present state of university libraries especially in Nigeria. Some of these challenges are identified as inconsistent power supply, poor internet connectivity,

lack of literacy skills, poor ICT infrastructural facilities, lack of cooperation among librarians, and low interest of librarians in learning and utilizing new media. Madhusudhan and Nagabhushanam (2012) conducted a study on web-based library services in universities. Militating factors were inadequate computers and slow internet connection. Muneja and Abungu's (2012) study reported that a lack of technical knowledge on the use of social media was a challenge to their application by librarians in Tanzania towards rendering library services.

Hamid, Chang, Waycott and Kurnia (2011) examined the use of online social networking and revealed that barriers such as infrastructure, control and supervision, time, skills, cultural differences and language were identified for low utilization of social media at the lecturers, students and higher education levels. Nnadozie (2016) study revealed that the lack of modern ICT equipment was identified as one of the factors that hindered effective information delivery. Emwanta (2012) examined the challenges of ICT application in Nigerian university libraries. The survey research method was used for the study. One hundred professional librarians from three universities in the South-east comprised the study population. A questionnaire was used for data collection while descriptive statistics was applied to the results presentation. Eighty percent of the questionnaires were returned and found useful for data analysis. Among the institutional factors that inhibited the effective use of ICT for information service delivery, over 98 percent of the respondents indicated that unreliable power supply and inadequate maintenance issues among others were recorded.

Ejedafiru (2010) investigated the challenges of rendering library services among four federal university libraries in Nigeria. His findings revealed that the state of the heart of ICT infrastructure such as the computers and the Internet was a problem in rendering such service. Ahmed's (2014) study of some public libraries in Bangladesh reported that the major challenges to the effective use of IT-based service were the absence of IT facilities and the lack of IT-skilled library personnel. Ezeani and Igwesi (2012) submitted that issues of awareness among librarians in developing countries, lack of social communication regulations, bandwidth problems and unreliable power supply have contributed to the non or low use of social media for service delivery in university libraries in Nigeria. In a study conducted by Anyaoku, Orakpor and Ezejiofor (2012) on knowledge and use of Web 2.0 by librarians in Nigeria, the findings revealed that 70 percent of the librarians studied indicated no access to Internet connections in their libraries. In the same vein, Adetimirin (2009) study found that only 11 percent of the librarians studied accessed and used institutional-based internet facilities while the majority relied on cybercafé. The findings further indicated that slow internet connection, cost of bandwidth and skills in internet facilities hinder its use among information professionals in Nigerian university libraries studied. Bwalya (2014) examined the virtual library services in two university libraries in Zambia. The findings revealed that major constraints to virtual library service delivery were poor Internet connection and low bandwidth.

Abdelraheem and Ahmed's (2015) study submitted that poor infrastructural facilities such as the slow speed of Internet connection and the non-availability of smartphones in Sudanese universities were major inhibitors to the use of social media. Similarly, Madhusudhan and Nagabhushanam's (2012) result showed that the majority of the respondents indicated slow internet connectivity as the major barrier to accessing web-based library services. According to Baro and Asaba (2010), the status of internet connectivity in Nigerian university libraries showed that very few university libraries had steady and dependable internet access for use. A Pakistan study by Arif and Moshood (2012), found that the unavailability of computers and internet facilities hindered effective service delivery in the libraries studied. Muneja and Abunju's (2012) study on the use of social technology platforms in delivering library services among selected libraries in Tanzania revealed unreliable power supply, and poor internet access as barriers to service delivery. Abubakar (2011) discovered that poor internet connectivity and lack of ICT equipment in many academic libraries had hindered improved library service delivery. Similarly, Eze and Uzoigwe's (2013) study showed that 93 percent of the respondents agreed to poor ICT such as electronic facilities and other barriers such as the high cost of ICT facilities maintenance and the lack of a conducive office environment. Ugwuanyi and Ejikeme's (2011) study on new-era librarians in four universities in Nigeria found that respondents admitted that the most prominent among the challenges militating against the application of ICT were unreliable power supply, high cost of ICT equipment and problems of hardware and software repairs. So also, Ajala and Ojo (2011), found inconsistent power supply as a major challenge of electronic document delivery service. In the same vein, Ajayi, Shorunke and Akinola (2013) revealed inadequate power supply and obsolescence of ICT facilities among others as issues peculiar to the use of ICT in the tertiary institutions studied.

Methodology

The study adopted a descriptive research survey with a population of 54 librarians from four university libraries; in Bayelsa State. These Universities are the University of Africa Toru-Orua, (UAT) Niger Delta University (NDU) Amassoma, Federal University Otuoke (FUO) and Bayelsa State Medical University (BMU) Amara Yenagoa, Bayelsa State. A total enumeration sampling technique was used to select all the respondents. A questionnaire titled New Media Technologies for Library Services Delivery was used to gather the data. 54 copies of the instrument were distributed by the researcher. 54 copies were retrieved and found valid for analysis. Data was analyzed using simple percentages and were presented in Tables.

Results

The findings of the study are presented according to the research questions.

Table 1. New media Technologies used by librarians in library services delivery.

New media tools used	Frequency
Facebook	48(88%)
WhatsApp	45(83%)
Telegram	31(57%)
Twitter	38(70%)
YouTube	5(9%)
Instagram	15(28%)

Table 1 revealed that 48(88%) and 45(83%) of the respondents indicated that they utilize Facebook and WhatsApp in library service delivery. While 38(70%) and 31(57%) of the respondents agreed that they use Twitter and Telegram in library services delivery. 15(28%) and 5(9%) also agreed to the use of Instagram and YouTube in library services delivery respectively. This means that new media technologies used by university librarians in Bayelsa state in service delivery are Facebook, WhatsApp, Twitter, Telegram, Instagram and YouTube respectively.

Table 2: New media technologies for library services delivery.

Library services delivery	Frequency
Book reservation	32(59%)
Overdue reminders	47(89%)
Create awareness services about library resources and services	51(94%)
Online chat	36(66%)
Electronic document delivery	47(89%)
Posting of library events	38(70%)
User orientation	51(94%)
Digital reference services	23(42%)

Table 2 revealed that the respondents use new media technologies in library service delivery. 51(94%) indicated that they use it for user orientation and to create awareness services about library resources and services. 47(89%) and 47(89%) of the respondents agreed that they use it for electronic document delivery and overdue reminders, 38(70%) and 36(66%) agreed that they use it for posting library events and online charts. 32(59%) agreed that they use it for book reservations. While 23(42%) use it for Digital reference services. This means that university librarians in Bayelsa state use new media technologies in library services delivery, such as creating awareness about library resources and services, user orientation, electronic document delivery, overdue

reminders, posting of library events, information literacy skills and book reservation as well as digital reference services.

Table 3: Skills required by librarians in the use of new media technologies in library services delivery

Skills in the use of new media	Frequency
Digital literacy skill	51(94%)
Digital resource management skill	45(83%)
ICT skill	51(94%)
Digital marketing /customer service skill	41(75%)
Communication skill	45(83%)
Web literacy skill	37(68%)

Table 3 revealed that the respondents need skills in the use of new media 51(94%) of the respondents agreed to the use of digital literacy skills and ICT skills 45(83%) agreed to the use of digital resource management skills and communication skill, while 41(75%) and 37(68%) of the respondents agreed to the use of digital marketing/customer service skill and web literacy skill respectively. This means that the skills librarians in university libraries in Bayelsa state use in library services delivery with the new media are, digital literacy skills, ICT skills, digital resource management skills, communication skills, digital marketing/customer service skills and web literacy skills.

Table 4: Challenges encountered by librarians in the use of new media technologies in library service delivery

Challenges encountered	Frequency
Inconsistent power supply	35(64%)
Lack of digital literacy skill	37(68%)
Poor ICT infrastructural facilities	41(75%)
Lack of cooperation among librarians	21(38%)
Poor internet connectivity	45(85%)
Low interest of librarians in learning and utilizing new media in service delivery	25(46%)

Table 4 revealed that the respondents encounter challenges in the use of new media technologies. 45(83%) and 41(75%) of the respondents agreed that poor internet connectivity and poor infrastructural facilities constitute a challenge in library services delivery with the new media. 37(68%) and 35(64%) of the respondents agreed that lack of literacy skills and inconsistent power supply also constitutes a challenge, while 25(46%) and 21(38%) agreed that low interest of librarians in learning and utilizing new media in library services delivery and lack of cooperation among librarians constitutes a

challenge to in library services delivery. This means that university librarians in Bayelsa state encounter challenges like poor internet connectivity, poor ICT infrastructural facilities, lack of digital literacy skills, inconsistent power supply, the low interest of librarians in learning and utilizing social media and lack of cooperation among librarians, which are challenges encountered by librarians in the use of new media technologies.

Discussions of findings

The results of the study regarding the new media technologies used by librarians in library service delivery and it was revealed that librarians use Facebook, WhatsApp, Twitter, telegram Instagram and YouTube in Bayelsa State University libraries. The findings of the study were in line with the study of Ogunbodede and Ivwighreghweta (2020) who revealed that the majority of librarians mostly use Facebook and WhatsApp platforms to provide library services. Similarly, Collins and Quan-Haase (2012) found that Facebook, Twitter, YouTube and Flickr were seen as the most common social media tools in Canada.

Findings further indicated that library services delivery with the new media technologies by librarians in university libraries in Bayelsa State were user orientation, creating awareness, posting library events, overdue reminders, electronic document delivery, online chart, digital references, and book reservation. The finding is in tandem with the study of Ogunbodede and Ivwighreghweta (2020) who revealed that the majority of librarians mostly use Facebook and WhatsApp platforms to provide library services. The authors also discovered that they use these social media platforms to create awareness about library resources and services and also to share library news and events. In the same vein, the study of Eze and Uzoigwe's (2013) study on library service provision revealed that services such as user education, user orientation, reference, Internet, electronic databases, exhibition and display services among others were rendered to library users.

Furthermore, the study also investigated librarians' skills in the use of new media technologies in library service delivery in university libraries in Bayelsa state. The study revealed that ICT skills, digital literacy skills, digital resources management skills, digital marketing/customer service skills, communication skills and web literacy skills were identified as the skills required by librarians in the use of new media in library services delivery. This study validates the study of Ogunbodede and Ivwighreghweta (2020) and Eze and Uzoigwe (2013).

Finally, the findings of the study revealed poor internet connectivity, inconsistent power supply, poor ICT infrastructural facilities, lack of cooperation among librarians, lack of digital literacy skills and low level of librarians in learning and utilizing new media technologies were challenges encountered by librarians in the use of new media technologies in library service delivery. This corroborates the findings of Hamid, Chang,

Waycott and Kurnia (2011) who revealed that barriers such as infrastructure and lack of skills, among others, were identified as challenges. Also, Nnadozie's (2016) study revealed that the lack of modern ICT equipment was identified as one of the factors that hindered effective information delivery. Muneja and Abungu (2012) further supported that a lack of technical knowledge on the use of social media was a challenge to their application by librarians in Tanzania towards rendering library services. This also validates the findings of Adetimirin (2009) which indicated that slow internet connection and skills in internet facilities hinder its use among information professionals in Nigerian university libraries. Similarly, Madhusudhan and Nagabhushanam's (2012) study result showed that the majority of the respondents indicated that inconsistent power supply and slow internet connectivity were a major barrier to accessing web-based library services.

Conclusion

From the findings of the study, it was revealed that the new media technologies used by the respondents in library services delivery were Facebook followed by WhatsApp. The findings also revealed those new media technologies were used for library services delivery such as creating awareness services about library resources and services and user orientation programmes. The finding showed that the skills needed by librarians in the use of new media were digital literacy skills among others. Poor internet connectivity and inconsistent power supply were identified as challenges.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Librarians should endeavour to acquire the necessary skills needed in the use of new media technologies for them to remain relevant in their profession. Therefore, they should improve their ICT skill and learn how to utilize these new media effectively in library service delivery.
2. University management should endeavour to make the power supply consistent since these new media facilities cannot be effectively utilized in the absence of a power supply.
3. All librarians in Nigeria should take a bold step to learn and utilize these new media in library service delivery in other to remain relevant in their profession as information providers in this technological era.

References

Abdelraheem, A.Y., & Ahmed, A. M. (2015). Electronic social media in teaching: usages, benefits and barriers as viewed by Sudanese faculty members. *American International Journal of Social Science*, 4(5), 58-68.

- Anyaoku, E.N., Orakpor, A. M. &Ezejiofor, V.O. (2012). Knowledge and use of Web 2.0 by librarians in Anambra State, Nigeria. *African Journal of Library Archives and Information Science*, 22 (1), 31-40.
- Anwyll, R., &Chawner, B. (2013). Social media and readers' advisory: New Zealand experiences. *Reference and User Service Quarterly*, 53(2), 113-118.
- Aina, L. O. (2014). The current practice of librarianship: a journey to extinction of the profession in Nigeria? A lecture delivered at the 8th JireOlanlokun Memorial Lecture at the Julius Berger Hall, University of Lagos, Sept. 4, 2014. 35.
- Alabi, A. O., Nduka, S. C., &Olatise, O. M. (2011). Developing strategies towards information service delivery (ISD) in academic libraries in South-west Nigeria. National Library Association's 49th National Conference and Annual General Meeting on information for all: strategies for national development. L.
- Abubakar, B. M. (2011). Academic libraries in Nigeria in the 21st century. Library Philosophy and Practice Retrieved on 25 June, 2014 from <http://unllib.unl.edu/LPP/lpp2011.htm>
- Adetimirin, A. E. (2009). Use of the internet by information professionals in some selected university libraries in South West Nigeria. *The Information Technologist*, 6(1), 9-16.
- Arif, M., &Mahood, H. (2012). The changing role of librarians in the digital world. adoption of web 2.0 technologies by Pakistan Libraries. *The Electronic Library*, 30(4), 469- 479.
- Ajayi, S. A., Shorunke, O. A., & Akinola, A. O. (2013). Factors influencing the use of information communication technologies by library personnel in college libraries in Osun and Oyo States, Nigeria. *An International Journal of Information and Communication Technology*, 10(1), 143-156.
- Baro, E. E., &Asaba, J. O. (2010). Internet connectivity in university libraries in Nigeria. The present state. *Library Hi Tech News*, 27(9/10), 13-19.
- Baro, E. E., Ebiagbe, E.J., & Godfrey, V.Z. (2013). Web 2.0 tools usage: A Comparativestudy of Librarians in University Libraries in Nigeria and South Africa. *Library HiTech News*, 30 (5),10-20
- Bashorun, I.M.T., Isah, A. and Adejumo, A.S. (2018). Social networking as a tool for library services and knowledge management in academic libraries in Nigeria. *International Journal of Information Processing and Communication*, 6 (1), 146-154.
- Collins, G. &Quan-Haase, A. (2012). Social media and academic libraries: Current trends and future challenges. ASSIST
- Ejedafiru, E. F. (2010). Lack of ICT infrastructure as a barrier to resource sharing in Nigerian libraries. Library Philosophy and Practice. Retrieved Mar. 13, 2015, from www.webpages.uidaho.edu/mbolin/ejedafiru.htm.
- Emwanta, M. (2012). The challenges of effective implementation of Information and Communication Technology in Universities Libraries in East Nigeria. *Nigerian Libraries*, 45(2), 84-96.

- Eze, J. U., &Uzoigwe, C. U. (2013). The place of academic libraries in Nigerian university education: contributing to the 'Education for All' initiative. *International Journal of Library and Information Science*, 5(10), 432-438.
- Ezeani, C. N., &Igwesi, U. (2012). Using social media for dynamic library service delivery: The Nigeria experience. *Library Philosophy and Practice*, 2012(1).
- Fought, R. L., Gahn, P., & Mills, Y. (2014). *Promoting the Library Through the Collection Development Policy: A Case Study*. *Journal of Electronic Resources in Medical Libraries*. <https://doi.org/10.1080/15424065.2014.969031>
- Hamid, S., Chang, S., Waycott, J., &Kurnia, S. (2011). Making sense of the use of online social networking in higher education: an analysis of empirical data using activity theory. Retrieved Aug. 04, 2016, from eprints.um.edu.my/12799/1/paper_78.
- Omeluzor, S. U., Oyovwe-Tinuoye, G. O., & Abayomi, I. (2016). Social networking tools in library service delivery: The case of academic libraries in South-east zone of Nigeria. *DESIDOC Journal of Library and Information Technology*, 36(5), 269–277. <https://doi.org/10.14429/djlit.36.5.10174>
- Ishola, B. C. (2014). Funding problems in Nigerian university libraries: fee-based library and information services to the rescue, focus on pricing policy. *Library Philosophy and Practice*, 1176.
- Madhusudhan, M., &Nagabhusanam, V. (2012). Use of web-based library services in select university libraries in India: a study. *International Journal of Library and Information Studies*, 2(1), 1-20.
- Mergel, I. (2012). The public manager 2.0: preparing the social media generation for a networked workplace. *Journal of Public Affairs Education*, 18(3), 467-492.
- Muneja, P. S., &Abungu, A. K. (2012). Application of web 2.0 platforms in delivering library services. A case of selected libraries in Tanzania. *Proceedings of the 20th Standing of Conference of Eastern, Central, Southern Africa Library and Information Associations SCECSAL. 4-8 June, KLA. Nairobi: Kenya*.
- Nnadozie, C. O. (2016). Interaction between librarians ICT skills and faculty members' satisfaction with information delivery in university libraries. *Middlebelt Journal of Library and Information Science* 14: 32-46.
- Shorunke, O. A., & Akinola, A. O. (2013). Factors influencing the use of information communication technologies by library personnel in college libraries in Osun and Oyo States, Nigeria. *An International Journal of Information and Communication Technology*, 10(1), 143-156.
- Ugwuanyi, C. F., &Ejikeme, A. N. (2011). Awareness of the expected skills sets and development required by new era librarians in academic libraries in South Eastern Nigeria. *Proceedings of the 49th National Library Association Conference on Information for All: Strategies for National Development*.
- Weerasinghe, S., &Hindagolla, B.M.M.C.B. (2018). Use of Social Network Sites (SNS) by library academics in the workplace: perspectives of university librarians in Sri Lanka. *Journal of the University Librarians Association of Sri Lanka*, 21(2), 21-43.

-
- Xie, I., & Stevenson, J. (2014). Social media application in digital libraries. *Online Information Review*, 38(4), 502-523.
- Zakari, M. (2018). Exploiting the potentials of disruptive technology and disruptive innovation in library and information services. *Nigerian Libraries: Journal of the Nigerian Library Association*, 51(2), 26-40.
- Zohoorian-Fooladi, N., & Abrizah, A. (2014). Academic librarians and their social media presence: a story of motivations and deterrents. *Information Development*, 30(2), 159-171.