



## **Librarians ICT Skills and Contemporary Library Services in Academic Libraries in Rivers State, Nigeria.**

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### **Abstract**

The study investigated librarians ICT skills and contemporary library services in academic libraries in Rivers State Nigeria. Three objectives and corresponding research questions guided the study. Descriptive research design was adopted for the study. A population of 73 librarians and library officers drawn from all academic libraries in Rivers State. Data were collected using questionnaire and the census sampling technique was used. Data were analyzed using descriptive statistics specifically mean and standard deviation. A total of 73 library professionals and para-professionals were sent the questionnaire and 70 responded to the questionnaire given a total response rate of 95%. The findings revealed that vital ICT skills possessed by librarians for contemporary library services include, computer processing skills, internet accessing skills, online collaboration skills, social media literacy and electronic security skills. The study also revealed the different library services that require ICT skills to perform to include, online users education services, online/emails for Current Awareness Services, OPAC services, providing links to e-resources, electronic storage and dissemination of information. Furthermore, the study showed that the problems faced by librarians in acquiring ICT skills for contemporary service delivery includes lack of funds, inadequate training opportunities and poor ICT facilities. Thus, the study recommended that the government and the university administrations should allocate more funds to support library development, particularly for staff training and digital infrastructure. The library management should conduct continuous professional development programs to improve librarians' proficiency in digital tools and services, the institutions should equip libraries with up-to-date information and communication technologies (ICTs) necessary for delivering digital services and among others.

**Key words:** Academic libraries, ICT skills, contemporary library services, ICT Skills.



## Introduction

The world has turned a global village through the integration of ICT and internet into the daily routine of man. It has changed tremendously the ways and manner things are done in the society, the same is applicable to education and its heartbeat the library. Information and communication technology (ICT) are important tools in modern library practice, it has the potentials of promoting effective and efficient contemporary services in the library in line with one of the cardinal objective of librarianship which is 'save the time of the reader'.

Modern library users are digitally literates that prefer the use of ICT to solve their learning needs, this has fast increase the functions of the library, it has brought in new ways of doing old things with better results therefore, posing new types of challenges to library workers. Ahmed and Sheikh (2021) holds that the services render by the library has gone beyond manual organization and dissemination of book materials to include managing and giving access to electronic information resources, providing tech-devices to aid learning and co-creating knowledge with users. Contemporary, libraries as conceptualized by Rahoo (2021) are skills-driven because it's now a connecting point between learners, learning resources and the learning facilitators (teachers). Librarians consequently, drives the process of organizing, coordinating and regulating all activities of the library for ensuring a better learning outcome. Therefore, no doubt librarians must be fully equipped with the prerequisite current ICT skills and competencies to efficiently attend to contemporary needs of library users.

According to Umar (2019), the wind of globalization and information explosion blows across the globe any library and information professional that does not embrace it by acquiring the necessary skills to cope with it will not be left behind. The big question is what are the ICT skills and competencies expected of librarians in this digital era? ICT skills can be described as the different techniques to access and use digital tools. Oyovwe-Tinuoye, et al (2021) pointed out that learners are increasingly using technologies in all areas of their lives and any one in the learning environment that limit their ability to acquire new digital skills risk becoming irrelevant to the 21 century learning environment which include the library. Quick access to information resources is another reason why library workers work tirelessly, they seeks to give the information resources addresses and locations so that patrons can access them easily and ICT skills helps them in achieving these tasks which before now used to be tedious and time consuming.



The use of ICT in processing information materials make it easy and faster, ICT devices such as Online Public Access Catalogue (OPAC) gives information resources multiple access points. No librarian can excuse himself from acquiring these soft skills if such an individual wants to flow in the trends of things in the modern library world.

### **Statement of the Problem**

Attending to the needs of contemporary library users who are all digitally literates has made the use of ICT by librarians very important. ICT has become the promising solution in attending to information needs of users because of its ability to save time and could not be restricted by distance. However, academic libraries in most developing countries such as Nigeria lack the needed facilities and personnel with the necessary skills needed in providing contemporary library services to patrons. To stay relevant in this digital age, academic libraries in Rivers State must quickly make as part of her routine the needed ICT Skills acquisition trainings and keenly encourage its professionals to participate actively in it as to enhance their ability to provide contemporary information services which are digitally driven to her patrons. It is on this note, that this study examined the ICT skills in performing contemporary library services in academic libraries in Rivers State.

### **Objectives of the Study**

The objectives of the study are to:

1. Find out librarians ICT skills for contemporary library service in Academic libraries in Rivers State.
2. Ascertain contemporary library services performed using ICT skills.
3. Ascertain the challenges militating against librarians' ICT skills acquisition for contemporary library services in academic libraries.

### **Research Questions**

1. What are librarians ICT skills for contemporary library service in academic libraries in Rivers State?
2. What are the contemporary library services performed using ICT skills?
3. What are the challenges militating against librarians' ICT skills acquisition for contemporary library services in academic library?



## Literature Review

There are different information communication technology (ICT) skills for contemporary library services that are essential for librarian. Matthew (2021) sees ICT skills as very most essential in daily work procedures and the fastest expanding skill sets, and are currently in high demand.

ICT has also permeated into different job functions evolving from being a specified niche to becoming a basic requirement across different professions. The increasing dominance and explosion of digital content has prompted information managers to redefine themselves over time. Ojiegbe (2010) defined ICT skills of library staff as those relevant skills and knowledge to be acquired by those working in the library to be able to fully exploit information search, retrieval, and disseminate information using electronic format. According to him, they should also be competent in the use some of library software packages that can enable them to handle the professional technical operations in the library like cataloguing, classification and to generate user databases.

Sawant and Yadav (2021) and Daniels et al., (2023) identified some essential ICT skills every information Manager needs to keep up with the demands of the present information environment these include; computer processing skills which is the day to day skills to input data, store, retrieve, manipulate different packages in the computer such as Micro words, excel, power point, coral draw, and others which are extremely essential in managing office communications. Also is the internet accessing skills such as being able to build a webpage, searching for information using the different search engines like google, chrome, Lenox, Firefox among others. Oyedokun, et al. (2018) opined that proficiency in accessing and utilizing the social media is very necessary since these tech-tool has deeply infiltrated our lives. Social media platform such as Facebook, WhatsApp, twitter, Instagram, LinkedIn has been integrated into the mainstream of communication for many organizations and individuals hence, information professionals are expected to be vast in all these areas (Omechia et al., 2021). With the proliferation of ICT in daily life, the maintenance of a secure network connection has also become an industry and skill set of its own. Understanding the concepts of digital security and privacy would not only help the user, but also the organization in particular, preventing security complications and protecting both parties' data from being compromised.

Online collaboration skills are critical for teamwork in virtual environments. A study by Johnson and Lee (2022) emphasizes the importance of effective communication and conflict resolution



skills when working in digital teams. The ability to collaborate online not only enhances project outcomes but also fosters innovation through diverse perspectives (Johnson & Lee, 2022). This skill has become increasingly relevant with the rise of remote work and global teams.

According to Singh and Arora (2015) most university libraries offered a range of services which included current awareness service, selective dissemination of information, bibliography service, document delivery service, interlibrary loan service, reference service, circulation, user education services, OPAC services. Okeji, et al (2020) posit that service delivery is most useful to users and that specifically, reference and circulation services are essential services of every library. Joel, (2020) holds that current awareness services (CAS) and selective dissemination of information (SDI) are very important services of the library through the use of digital devices satisfies users' current approach to information and thereby keeps them up-to-date in the field of their work. SDI is a special type of current awareness service. The Online Public Access Catalogue (OPAC) is a next generation of cataloguing system. OPACs allow users to search library catalogues and access other services from any client at Library Services anywhere at any time. It allows users to search for the bibliographic records contained within a library collections. It helps to users for find out necessary information and removes the time barriers. The users access the Web OPAC service with a standard web browser connect as a client machine because the mechanism does not require installation of any additional client-side software.

ICT has been identified as a panacea for providing satisfactory contemporary library services. Librarians are taking advantage of the facilities available on the information technology system and integrating them into the daily operations and services of the library. Different ICT facilities that will enhance effective services delivery in the library include: computer system, the internet, online public access catalogue (OPAC), mobile phones, reprographic machines, cameras among others. These facilities may be synchronous and asynchronous. Ubogu (2019) is of the opinion that ICTs facilities used in the library are related computer based peripherals. In line with the above, Adebayo, Ahmed & Adeniran, (2018) and Umana (2018) also pointed out that computers are electronic device that is capable of accepting and storing data or information, holding a list of instructions in its memory, processing the data into information through those series of instructions and to carry out its functions without human intervention. According to Adebayo *et al.* (2018), computers are essential management tools which can be used to handle different operations more efficiently. Computers can be used for various activities such as information generation,



processing, ordering/acquisition, circulation, cataloguing and classification, desktop publishing, circulation. Also, is the internet which is a fiber optic networks that uses internet links to interconnect computers around the world, enabling users to communication via e-mail, transfer data and programme files, find information on the World Wide Web.

A database is an organized collection of data for one or more purposes, usually in digital form. Libraries provide access to a variety of bibliographical databases and full-text resources that are typically organized to model relevant aspects of reality, in a way that supports processes requiring the information. These were bibliographic, references and abstracts of articles in the academic and professional literature. Since, there is remarkable growth in scope of online databases. Also of immense importance is the library software facilities which software designed to manage different library routines and processes. Most of these software are integrated and have modules for the different activities or tasks carried out in the library like cataloguing, statistics, acquisition processes, serials control etc. Examples of such software are CDS/ISIS, READABLE, GLAS, ALICE for Windows, and KOHA. However, many factors militate against librarians' digital skills acquisition and improvement according to the studies carried out by Aminikpo, et al. (2024), Ogunbodede and Atchrimi (2024), Ajibare, et al (2023) major challenges of librarians are poor funds, lack of infrastructure, poor training opportunities among others.

### **Methodology**

Descriptive survey research design was used in carrying out the study. The population of the study consisted of 73 para-professionals and professional in the federal and state government owned academic libraries in Rivers State. Three University libraries and three Polytechnic libraries were purposively sampled, these libraries and the number of respondents are University of Port Harcourt library (40), Rivers State University library(11), Ignatius Ajuru University of Education library(10), Ken SaroWiwa Polytechnic library (3), Captain Elechi Amadi Polytechnic library (6) and College of Health Science and Management Technology library(3). Questionnaire was used as instrument for the study, 73 copies of questionnaires were sent out and 70 were retrieved successfully. The census sampling technique was adopted for the study since the population is of a manageable size. The questionnaire was divided into two sections, A and B. Section 'A' focused on personal information about the respondents and section 'B' focused on the research questions about ICT skills, identifying the vital services performed using ICT skills and the challenges faced by



librarians in acquiring ICT skills. The data collected was analyzed using mean and standard deviation.

### Results and Discussions

**Research Question 1:** What are the librarians ICT skills for contemporary library service in academic libraries in Rivers State?

**Table 1: Librarians ICT Skills for Contemporary Library Services**

S/N	Librarians ICT Skills	SA	A	D	SD	M	SD	REMARK
1	Computer processing skills	60	10	0	0	3.86	0.35	Agree
2	Internet accessing skill	55	15	0	0	3.79	0.41	Agree
3	Social media literacy	30	30	5	5	3.21	0.86	Agree
4	Online collaboration skill	20	20	20	10	2.71	1.03	Agree
5	Electronic security and safety skill	60	10	0	0	3.86	0.35	Agree
Grand mean						3.49	0.60	Agree

Table 1 presents the distribution of responses on librarians' ICT skills across five key areas: computer processing, internet access, social media literacy, online collaboration, and electronic security and safety. The table revealed that librarians have proficiency in computer processing skills ( $M = 3.86$ ,  $SD = 0.35$ ), internet accessing skills ( $M = 3.79$ ,  $SD = 0.41$ ), and electronic security and safety skills ( $M = 3.86$ ,  $SD = 0.35$ ), proficiency in social media literacy ( $M = 3.21$ ,  $SD = 0.86$ ) and online collaboration skills ( $M = 2.71$ ,  $SD = 1.03$ ). The weighted mean of 3.49 indicates that librarians possessed ICT skills for contemporary library services.

**Research Question 2:** What are the contemporary library services that requires ICT skills to perform?

**Table 2: Libraries contemporary services that requires ICT skills**

S/N	Contemporary library services that are better perform with ICT	A	SA	D	SD	M	SD	REMARK
1	Online user education services	50	20	0	0	3.29	0.45	Agree
2	Online dissemination of information and current awareness services	70	0	0	0	4.00	0.00	Agree
3	Online Public Access Catalogue	65	5	0	0	3.93	0.26	Agree
4	Providing links to e-resources	50	10	10	0	3.00	0.53	Agree
5	Cloud storage and security of information	55	15	0	0	3.21	0.41	Agree
Grand mean					<b>3.49</b>	<b>0.33</b>	<b>Agree</b>	

In table 2, the results indicate that all listed contemporary library services strongly require ICT skills, with online dissemination of information and OPAC services receiving the highest agreement. The standard deviations are relatively low, suggesting consensus among respondents. The grand mean of 3.49 also confirms that respondents generally agree that ICT skills are essential for these services.

**Research Question 3:** What are the challenges faced by librarians in the acquiring ICT Skills for Contemporary library services in academic libraries in Rivers State?

**Table 3: Challenges face by librarians in acquiring ICT skills**

S/N	Challenges in militating against the acquisition of ICT skills	A	SA	D	SD	M	SD	REMARK
1	Poor funding	40	20	10	0	3.14	0.64	Agree
2	Lack of training opportunities	25	20	15	10	2.79	1.01	Agree
3	Lack of adequate ICT facilities	30	10	20	10	2.57	0.09	Agree
4	Poor time management	10	10	20	30	2.00	1.07	Disagree
5	Fear of technology	15	10	20	25	2.14	1.06	Disagree
Grand mean					<b>2.53</b>	<b>0.77</b>	<b>Agree</b>	

Table 3 addresses the challenges librarians face in acquiring ICT skills for contemporary library services in academic libraries in Rivers State. The analysis reveals the top challenges Identified



poor funding ( $M = 3.14$ ). Lack of training opportunities ( $M = 2.79$ ). Lack of adequate ICT facilities ( $M = 2.57$ ). These challenges had mean scores above the criterion mean of 2.50, indicating a general agreement among respondents that they significantly hinder the acquisition of ICT skills. Poor time management ( $M = 2.00$ ), fear of technology ( $M = 2.14$ ) had mean scores below the 2.50, indicating they are not perceived as major barriers. With a grand mean of 2.53 is evident that, on average, librarians in academic libraries do face challenges in acquiring ICT skills, though the severity varies.

### **Discussion of Results**

Findings of the study revealed that, librarians need to be highly proficient in computer processing skill, internet accessing, social media literacy, online collaboration and electronic security skills. This result is in line with the finding of Sawant and Yadav (2021), who in strong position supported that librarians need certain skill set to enable perform expectedly in the contemporary knowledge environment. Also, this result agreed with the finding of Oyedoku, Oyewumi, and Laaro, (2018), Okeji, Tralagba and Obi, (2020) when they revealed that computer processing skill, internet accessing, social media literacy, and online collaboration are core competences of the 21 century librarians. s

In research question two, librarians agreed that services such as online user education services, online dissemination of information, online dissemination of information, cloud storage and security as strong library services are trending services provided in the library that requires some digital skills by librarians. This is in consistence with the studies of Joel (2020) who affirmed that some critical services provided in academic libraries especially in support of electronic material include virtual referencing and information security.

On the challenges behooving the acquisition of digital skills among university librarians, many factors such as poor funds available to university libraries, lack of training opportunities and unavailability of the needed information communication facilities are responsible. Many scholars in their separate finding affirmed to this, particularly the findings of Aminikpo, et al (2024), Ogunbodede and Atchrimi (2024), Ajibare, et al. (2023) all decry the poor funds allocated to staff training in academic libraries and advocate for improvement in library subventions for training and infrastructural development.

### **Conclusion**



ICT integration into the library has come to stay, its advantages in library operations and services cannot be overstressed. For library and information workers to perform effectively they must have the necessary skills to work with ICT tools and devices available in the library. The study concludes that proficiency in digital skills such as computer processing, internet usage, social media literacy, online collaboration, and electronic security is essential for 21st-century librarians to effectively deliver modern library services. These services include online user education, information dissemination, cloud storage, and virtual reference, all of which require a strong digital foundation. However, challenges such as inadequate funding, limited training opportunities, and insufficient ICT infrastructure hinder librarians' acquisition and application of these skills.

## Recommendations

Therefore, based on the study findings the study recommends that:

1. University administrations should allocate more funds to support library development, particularly for staff training and digital infrastructure.
2. Library management should conduct continuous professional development programs to improve librarians' proficiency in digital tools and services.
3. Institutions should equip libraries with up-to-date information and communication technologies (ICTs) necessary for delivering digital services.
4. Libraries should collaborate with ICT organizations, educational bodies, and professional associations to provide training and support in emerging digital competencies.
5. Library science programs should be updated to include practical training in digital tools and technologies relevant to modern library services

## References

Ajibare, O. O., Fagbemiro, A. O., & Adewolojo, A. A. (2023). Challenges to librarians' Commitment in Universities, South-West, Nigeria. *Journal of Library Services and Technologies*, 5(1), 48-55.

Abbas, M. A., & Siddique, N. (2020). A study of ICT competencies among university library professionals of Punjab, Pakistan. *Library Philosophy and Practice (e-journal)*, 4000.

Adebayo, O.A., Ahmed, Y.O. & Adeniran, R.T. (2018). The Role of ICT in Provision of Library Services: A Panacea for Sustainable Development in Nigeria. *Library philosophy and*



practice.

<https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=5305&context=libphilprac>

Ahmed, S., & Sheikh, A. (2021). Information and communication technology skills among library and information science professionals: A predictor of enhanced library services. *Journal of Librarianship and Information Science*, 53(3), 444-453.

Aminikpo, N. R; Wiche, H, I. and Akaranda, F.C, (2024). Librarians Views On Cloud Computing and Data Management in University Libraries in Rivers State. *The Catalyst Journal of Library and Information Literacy*, 3 (2),

Asibi, I. J., Ojokuku, Y. B., & Udoh, U. I. (2023). Information and communication technology (ICT) competencies and job performance of librarians in some selected university libraries in North Central of Nigeria. *Library Philosophy & Practice*.

Daniels, G. N., Wiche, H., & Nsirim, O. (2023). Librarians' ICT skills and effective library service delivery in university libraries in Rivers State, Nigeria. <https://digitalcommons.unl.edu/libphilprac/7501>

Joel, A. P. (2020). Awareness and purpose of electronic information resources among postgraduate students of library and information science in Borno State. *East African Scholars Journal of Education, Humanities and Literature*, 3(8), 362-368.

Onuoha, U. Omokoje, & Bamidele, I. (2013). Assessing Service Effectiveness and Satisfaction with Library Services at Babcock University, Nigeria. *Information and Knowledge Management*, 3. (9): 84-90.

Patel, B.K.D. (2015). A study of library and information services for agriculture universities researcher of Gujarat state. Retrieved from: <http://hdl.handle.net/10603/105400>. Accessed on 22<sup>nd</sup> March, 2021.

Umana, K. (2018). ICT resources for sustainable development in Nigeria. Retrieved from: <https://researchcyber.com/icr-> Accessed on 22<sup>nd</sup> March, 2021.

Umar, B.D. (2019). Information and communication technology literacy among Academic on Amadu Bello University Zaria in Samaru. *Journal of Information Studies*, 9(2); 2010.

Eromesele, O. C., Omosekejimi, A. F., & Ogo, E. P. (2021). Librarians' ICT competency in the 21st century: A study of federal university libraries in southern Nigeria.



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Endouware, C. B. E., & Omehia, A. E. (2022). Assessment of ICT Competencies among Librarians in University Libraries in Bayelsa State, Nigeria. *Mousaion*, 40(1).

Omehia, A., Okwu, E., & Nsirim, O. (2021). Librarians' ICT competencies and utilization of emerging technologies in academic libraries in Rivers State, Nigeria. *Library Philosophy and Practice (e-journal)*, 5410.

Ogunbodede, K. F., & Atchrimi, I. A. (2024). Digital Competencies of Librarians in University Libraries in Nigeria. *Zambia Journal of Library & Information Science (ZAJLIS)*, ISSN: 2708-2695, 8(1), 9-13.

Okeji, C. C., Tralagba, E. C., & Obi, I. C. (2020). An investigation of the digital literacy skills and knowledge-based competencies among librarians working in university libraries in Nigeria. *Global Knowledge, Memory and Communication*, 69(4/5), 311-330.

Oyedokun, T. T., Oyewumi, F. A., & Laaro, D. M. (2018). Assessment of ICT competencies of library staff in selected universities in Kwara State, Nigeria. *Library Philosophy and Practice*, 1.

Oyovwe-Tinuoye, G. O., Omeluzor, S. U., & Patrick, I. O. (2021). Influence of ICT skills on job performance of librarians in university libraries of South-South, Nigeria. *Information Development*, 37(3), 345-358.

Rahoo, L. A. (2021). Impact of ICT Skills for Knowledge Sharing among Library Professional of Higher Education Institutions of Pakistan. *Library Philosophy and Practice (e-journal)*, 6521.

Yadav, A. K. (2022). The essential skills and competencies of LIS professionals in the digital age: Alumni perspectives survey. *Global Knowledge, Memory and Communication*, 71(8/9), 837-856.

Saini, O. (2014). Document Delivery Service by Central Library, BabasahebBhimrao Ambedkar University Lucknow: A Study. *Desidoc Journal of Library & Information Technology*, 34 (5): 435-439

Sawant, S., & Yadav, S. (2021). Knowledge, proficiency and expertise required by smart librarians in the digital era. *Journal of Indian Library Association Now Available at https://journal.ilaindia.net/*, 56(4), 1-15.



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Singh, M. & Arora, A. (2015). Library Resources and Services in the Selected University Libraries of Haryana, India. *Desidoc Journal of Library & Information Tech.*

Susan, M. (2012). Impact of information communication technology (ict) on professional development and educational needs of library professionals in the Universities of Kerala *Thesis submitted in Partial fulfillment of the Requirement for Degree of Doctor of Philosophy.*