

Librarians Digital Competence and Access to Virtual Services in Colleges of Education Libraries in Nigeria

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Abstract

This paper offered a critical assessment of how well librarians in Nigerian Colleges of Education handle virtual services. In an era where digital resources are becoming increasingly vital in higher education, Nigerian Colleges of Education librarians are facing numerous challenges. These issues greatly limit their ability to provide effective virtual services. The paper indicated that librarians' digital skills, at are best, only what they can do. Additionally, the skills gap is worsened by ongoing infrastructural problems. This includes things like unreliable electricity, insufficient internet speed, lack of adequate computer resources, and limited financial backing. There is also notable lack of focus on digital libraries. Because of this, virtual service delivery suffers. The paper contended that improving librarians' skills is absolutely essential for both educational equality and meeting Nigeria's digital transformation goals. It suggested urgent actions, such as incorporating Information and Communication (ICT) and Virtual library management into library school programmes. It also recommended government investment in digital infrastructure and create national standards for librarians. If these suggestions are followed, Colleges of Education libraries could become key players in 21st-century teacher education.

Keywords: Digital competence, Access, Virtual services, Colleges of Education.

Introduction

The digital age has drastically altered how we find and share information, which has significantly changed how libraries operate and what they do. Colleges of Education, tasked with getting the next generation of teachers ready, really depend on good library services to give the students' knowledge and skills they need.

Traditionally, these institutions mainly used physical resources like books and non-book materials. But, with more digital information and the internet everywhere, they have to switch to virtual resources. These digital services, including online databases, e-journals, digital archives, and web – based resources, have many advantages. For instance, they are always available, offer wide range of information, and have better search tools. In Nigeria, where there are many Colleges of Education and a growing number of students, the need for solid virtual library services is especially important. However, these services can only work if there is good infrastructure, reliable internet, and most importantly, knowledgeable librarians. Nowadays, librarians are not just looking after physical collections anymore; they are now expected to be skilled information professionals. This means navigating the digital world, managing electronics resources, and providing effective training and support.

Librarians also have to help teach digital literacy (Chu, 2011).

This change means they need new skills,

such as being at home with information and communication technologies (ICTs), managing digital resources, finding information online and teaching users (IFLA,2012).

In today's world, being digitally competent is no longer just nice-to-have; it is practically a must if you want to tackle the complex issues of modern era (Ferrari,2013). The European Economic Commission (2016) offered a thorough explanation, viewing digital competence as the skilled and thoughtful use of information and communication technologies (ICTs) in all sorts of areas, like work, academic, leisure and even civic duties. Moreover, Van Deursen and Van Dijk (2014) have created a multifaceted view of digital competence, which includes being good at using things, finding information, communicating, and planning ahead. Being operationally competent means being able to skilfully use devices and software; informational competence is about finding, checking, and organizing information; communication competence means interacting and working with others effectively online; and strategic competence means using digital tools cleverly to reach certain goals.

Librarians in today's digital world must have a wide variety of skills. It is not enough to be just tech-savvy; they also need to be good with library systems, databases, and various software. In addition, they need teaching skills to help users learn how to use online resources, as highlighted by (Saleh & Lasisi, 2018). Excellent people skills are also vital for communicating with users and giving them personalized service and capacity.

As academic libraries increasingly adopt digital tools and platforms to support research, learning, and teaching, the competency framework for library professionals must evolve to meet these new demands. Digital services now require librarians to possess not only traditional knowledge management skills but also advanced competencies in digital literacy,

information retrieval technologies, and user support in virtual environments (Carey, 2019). Moreover, academic libraries face an increased demand for digital literacy, prompting the need for librarians to act as both educators and facilitators of digital tools and resources. This trend is particularly pronounced during global shifts, such as the COVID-19 pandemic, which underscored the significance of virtual services and the importance of librarians' competencies in facilitating remote access to information (Martzoukou, 2021). Competency models in library services emphasize the need for technical proficiency, especially in using Information and Communication Technology (ICT) tools to provide seamless virtual services. This is vital in ensuring that library professionals can manage digital resources effectively while also providing personalized and responsive services (Oyedokun & Oyewumi, 2018). As libraries transition to hybrid models that blend traditional and digital services, the ability to navigate and implement digital tools becomes a critical component of a library professional's skill set.

Types of virtual services

Virtual services can be categorized into several types based on the mode of delivery and user interaction. These include:

1. **E-mail reference services:** One of the earliest forms of digital reference, email services allow users to submit their inquiries and receive responses via email. Although asynchronous, email reference services enable users to ask detailed questions that may require in depth research (Ali & Haider, 2016).

2. **Chat reference services:** Chat services offer real-time, interactive assistance to users through instant messaging platforms. Many academic libraries have adopted chat reference as it allows for immediate responses to user queries. Chat services can be either staffed by live librarians or powered by AI-based systems that provide

answers to frequently asked questions (Moran, 2010).

3. Video conferencing: For more complex or detailed reference interactions, video conferencing has become a popular option. Platforms such as Zoom or Microsoft Teams enable users to have face-to-face consultations with librarians, mimicking the traditional in person reference interview (Singh, 2012). This is particularly beneficial for consultations that involve demonstrations or screen-sharing for teaching users how to navigate digital databases.

4. Social media integration: Many libraries have begun integrating their reference services with social media platforms such as Facebook, Twitter, and Instagram. Social media allows libraries to reach a wider audience and provide brief, real-time responses to inquiries. This approach is particularly useful for promoting library services and engaging with users in less formal settings (Tutu, 2016).

5. AI-Powered Systems: The use of AI in digital reference services is growing, particularly in larger academic libraries. AI-driven chatbots, such as those powered by natural language processing (NLP), can assist with answering repetitive questions, freeing up librarians to focus on more complex inquiries (Chowdhury, 2002). AI systems can also help users refine their search queries and locate relevant resources quickly and efficiently.

Benefits of virtual services

The shift to digital or virtual services offers several key benefits, particularly in the context of academic libraries where students and researchers increasingly rely on remote access to information. Some of the most notable advantages include:

1. Increased accessibility: Digital services are available 24/7, allowing users to access help at their convenience, irrespective of time zones or geographic

constraints (Singh, 2012). This is particularly beneficial for distance learners and international students who may not have regular access to on-campus facilities.

2. Scalability and flexibility: With digital tools, libraries can scale their virtual services to accommodate larger numbers of users without the need for additional physical space or staff. Chat bots and automated systems, in particular, allow libraries to manage higher volumes of inquiries efficiently (Ali & Haider, 2016).

3. Cost-effectiveness: Digital or virtual services reduce the need for physical infrastructure, such as reference desks or print materials. Instead, libraries can invest in technology that enables them to offer more services online, cutting down on costs related to maintaining physical spaces (Moran, 2010).

4. Enhanced user experience: The integration of digital tools, such as screen-sharing or video tutorials, enhances the user experience by providing interactive and personalized assistance. Users can receive detailed guidance on resources, navigating improving the digital overall effectiveness of the reference service (Chowdhury, 2002).

State of virtual services in college libraries.

Globally, academic libraries have embraced digital transformation, driven by the need to provide enhanced access to information in a rapidly evolving digital landscape. The digitalization of library services has been motivated by technological advancements and the increasing demand for remote access to scholarly resources. Digital libraries, cloud computing, and virtual reference services have become integral components of library operations worldwide.

These services allow users to access a wide range of resources, such as electronic journals, e books, and databases, without geographical constraints (Ahmed, Umar &

Dewa, 2020). Furthermore, innovations like cloud computing have significantly improved the capacity of academic libraries to deliver services efficiently, enabling scalable storage and easy access to digital materials (Ogwo, Ibegbulem, & Ezema, 2023).

In Nigeria, however, the state of digital services in college libraries faces several challenges. Many libraries lack the infrastructure necessary to implement full scale digital services, such as stable internet connectivity and adequate technological tools (Okoye, 2010). This digital divide has limited the capacity of Nigerian college libraries to fully integrate into the global information ecosystem. Despite these challenges, some Nigerian academic libraries have made strides in adopting emerging technologies.

For example, universities have begun integrating digital reference services, online databases, and mobile technology for accessing information resources (Saibakumo, 2021). Nevertheless, issues such as inadequate funding and a lack of skilled personnel continue to hinder the widespread adoption of digital services in many Nigerian institutions. The global COVID-19 pandemic further highlighted the importance of digital services in academic libraries. Many institutions globally transitioned to virtual learning environments, with academic libraries playing a crucial role in ensuring access to digital resources. In Nigeria, the pandemic also accelerated the shift toward digital services, although existing infrastructural challenges slowed progress (Nwosu & Asuzu, 2021). For Nigerian libraries to fully participate in the global academic network, continued investment in digital infrastructure building is essential.

Need for professional competence in virtual service provision in college libraries.

According to Awogbami (2024) virtual transformation of academic libraries has increasingly necessitated a focus on building and sustaining digital competence

among library librarians. With the rapid expansion of digital resources, the role of academic librarians has evolved to require not only traditional librarian substantial digital skills but competencies also to effectively manage digital resources, engage users, and provide valuable services in a digital environment (Idoko & Ugwuanyi, 2014). Studies emphasize that digital literacy is foundational for effective library service provision in academic settings (Natarajan & Mulat, 2020). Competent librarians are essential in helping academic institutions leverage digital tools to meet their diverse research and learning needs.

For instance, Hamad et al. (2024) highlight that digital competencies directly correlate with the quality of smart information services offered by academic libraries. Their study revealed that libraries with digitally proficient staff deliver more responsive, innovative services and improving users' experience. Digital skills such as operating Web OPAC systems, managing digital collections, and providing guidance on e-resources enable librarians to support advanced information needs (Akande, 2014). Moreover, Corral (2010) argued that digital library environments require librarians to act as blended professionals, integrating technical, managerial, and service-oriented skills. This convergence of skills facilitates an academic library's role in supporting digital scholarship and expanding access to information beyond traditional library settings.

In addition, the shift from traditional to digital service models requires librarians to possess ICT skills that support electronic resource management and user engagement. Asogwa (2014) noted that as libraries invest in electronic resources, there is an increased demand for librarians skilled in ICT to maximize these investments. The study illustrates how ICT proficiency contributes to a library's ability to support digital learning platforms and provide seamless access to digital content.

Furthermore, Noh and Hong (2022) established a link between library service quality and digital competence, suggesting that competent ICT skills among librarians enhance the library's relevance and efficacy in a digital landscape. As a supplement to technical skills, the ability to manage digital collections, utilize integrated library systems (ILS), and perform digital reference services are highlighted as necessary competencies (Okongo, 2014). These skills enable librarians to facilitate access to digital resources efficiently, reducing barriers for users and fostering an conducive to academic inquiry.

The need for professional competence in digital library service provision is essential to the effective functioning of college libraries in today's digital landscape. Research consistently showed that libraries equipped with digitally competent staff are more capable of meeting user demands, supporting digital learning, and enhancing the institution's academic mission. Investing in CPD and ICT training for library staff is therefore not only beneficial but necessary to sustain high quality digital services. As colleg libraries continue to embrace digital transformation, ongoing efforts to develop and support the professional competence of library personnel will be crucial in ensuring that libraries remain relevant and valuable resources for academic communities.

Skills for providing virtual services in college libraries.

For libraries to offer good online services, librarians need to possess a diverge range of competencies. These skills can be grouped into the following areas;

- (a) **Skills:** This includes knowing how to use different software, databases, and digital platforms. Librarian also Technical need to know how to manage digital collections and online catalogue, and they need to be able to solve technical problems that come up when people use online services (Anunobi & Okoye, 2012). It is also becoming increasingly important for

librarians to know about web design, content management, and new technologies like artificial intelligence and machine learning (Lor,2017).

(b) Information Management Expertise:

This is a key element involving the methodical organization, categorization, and retrieval of information. Digital preservation, along with the creation of metadata and careful management, are also crucial. Also, as Saleh and Lasisi (2018) pointed out, delivering strong information literacy instruction is incredibly important. Librarians are expected to critically assess and choose suitable digital resources, organize them for easy access and give users the tools they need to use these resources.

- (c) **Users-centred Skills:** These are user-focused skills like strong communication and interpersonal skills. It is essential for librarians to really understand what users want and need, and ten offer customized support and training, as Okiy (2010) suggested. Librarians must effectively communicate with users in a number of ways-through emails, instant chat, and social media-and adjust these services to fit the specific needs of different groups of users.

Key aspects of librarians' competence regarding virtual access provision.

Firstly, librarians should be well-versed in digital resources. This includes a thorough understanding of databases, electronic journals, and related materials. Having this knowledge allows them to guide users to the appropriate resources and offer assistance with different digital platforms. Secondly, expertise in information retrieval and management is crucial for smooth virtual service access. Librarians need to be highly skilled in search technique, database navigation, and information organization. This proficiency ensures that they can effectively use various search tools to find relevant information for users. Finally, the capacity to create and execute effective training programme is vital. User training is

essential to get the most out of virtual services. Librarians should be able to develop and deliver engaging training that meets the varied needs and learning styles of their users (Chisenga,2015).

Librarians need to possess the capacity for troubleshooting technical issues. Users often encounter technical challenges when accessing virtual services. Librarians with troubleshooting skills can provide timely assistance minimizing disruptions and ensuring seamless access.

It is also imperative for today's librarians to be adaptable and learn continuously. The digital landscape is constantly evolving requiring librarians to embrace continuous learning and adapt to new or emerging technologies or platforms. This ensures they remain competent and capable of supporting users on accessing the latest virtual resources available.

Challenges facing the provision of access to virtual services in college libraries in Nigeria.

When it comes to virtual services, technical snags can be a real headache for users. That is where librarians with sharp troubleshooting skills come in-they are crucial for giving quick help, keeping things running smoothly, and making sure everyone can get what they need without interruption. The digital world is always changing, and that means librarians have to be ready to learn new things constantly. They need to stay on top of new platforms, which helps them stay skilled and able to help users find the latest virtual resources.

In Nigerian Colleges of Education, providing virtual services comes with its own set of hurdles for librarians. Things like poor infrastructure, not enough money, and unreliable internet are big problems (Okoye,2000). In addition, there is a chance that both library staff and users might not have the best digital skills (Ifidon & Ifidon, 2007). Aina (2004) also pointed out that things like weak ICT setups, inconsistent power, and different levels of digital know-how among students and staff make the digital divide even worse. Limited funding

often makes it hard to buy and maintain virtual resources, putting even more pressure on librarians to make the most of what they offer. Given these difficulties, the role of a skilled librarian becomes, even more important. Even though everyone knows how important librarians' skills are, there are still several things stopping them from using their full potential in Nigerian Colleges of Education. These include: Lack of chances to learn and grow professionally. Inadequate training programmes and workshops on new tech and digital library practices makes it harder to build essential skills. If librarians do not get the credit and rewards, they deserve for keeping up with their skills, it can stop them from wanting to learn more and move up in their careers. Resource shortages is another factor hindering effective virtual service delivery in Colleges of Education. Things like not having enough online databases or reliable internet make it harder to offer a wide range of virtual services.

Conclusion

In conclusion, librarians' competence plays a vital role in facilitating access to and effective utilization of virtual services in Colleges of Education in Nigeria. By investing in librarians' training, upgrading infrastructure, and implementing effective user education programmes, these institutions can leverage the power of virtual resources to enhance teaching, learning and research. This requires a concerted effort from library management, educational policy makers, and the wider academic community to ensure that libraries are adequately equipped to meet the evolving information needs of the 21st century users.

Suggestions

Based on the points discussed, here are some suggestions for improvement: -

- (1) Nigerian Colleges of Education should fund training programmes for their librarians. These programmes should focus on improving their skills, information literacy, and ability to assist with research.

- (2) Libraries need more funding to update their facilities. This includes things like reliable internet, new computers and software, and access to online databases/resources.
- (3) Colleges of Education should collaborate with other tertiary institutions and organizations. The idea is share to resources and knowledge in order to improve virtual library services.
- (4) Libraries should offer better user education and outreach programmes. The goal is to make students and other library users more aware of and willing to use online services.
- (5) Clear rules are needed to guide the development and management of online library services. This rule should fit with the College's overall goals.
- (6) More research is also needed to see how specific online services affect student learning output. It is also important to study how well different user education and outreach.

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