



**ACCESSIBLE INFORMATION AND LIBRARY SERVICES FOR PEOPLE WITH
DISABILITIES: OPPORTUNITIES AND CHALLENGES IN THE DIGITAL ERA IN
ACADEMIC LIBRARIES IN NIGER STATE**

By

¹Dr. Oguntoye Folasade Busayo
oguntoye.folasade@lcu.edu.ng

²Fatima Ladan Yusuf (CLN)
fatimayusuf2012@gmail.com
fatimayl@ibbu.edu.ng

¹ Lead City University, Ibadan, Oyo State, Nigeria

² Ibrahim Badamasi Babangida University, Lapai, Niger State, Nigeria

Abstract

This study investigated accessible information and library services for people with disabilities in academic libraries in Niger State, focusing on the opportunities and challenges presented by the digital era. Using a descriptive survey research design, the study sampled 133 participants from selected academic libraries in Niger State. Data were collected through a structured questionnaire and analysed using descriptive statistics, including frequency counts, percentages, and mean scores. The findings reveal that while the digital era offers significant opportunities for inclusivity through assistive technologies and remote access, substantial challenges such as inadequate funding, poor internet connectivity, and lack of trained personnel persist. The study concluded that academic libraries in Niger State are yet to fully harness digital potentials for disabled users. Recommendations include increased government funding, specialized training for librarians, and the implementation of inclusive library policies.

Keywords: Academic libraries, Digital era, Library services, People with disabilities, Niger State.

Introduction

The digital era has revolutionized information access, offering unprecedented opportunities for inclusivity in academic environments. For people with disabilities, digital technologies serve as a bridge to knowledge that was previously inaccessible due to physical or systemic barriers. In the context of Niger State, academic libraries are the primary hubs for research and learning, making their accessibility a critical factor in the educational success of students with special needs. It is a known fact that libraries, including those serving special needs populations, have changed in recent years.

In that context, Ifidon and Ugwanyi (2015) opined that the change brought about by Information and Communication Technology (ICT) has impacted service delivery to library users, including those with special needs. The traditional methods of service delivery by libraries have given way to electronic means. The development and application of ICT for service delivery have improved and facilitated the dissemination of information and access; it has equally provided new roles in information provision, dissemination, and transfer.

Haber (2011) posited that libraries, before now, provided books at stand-alone locations. However, with time, their offerings have evolved with the digital age to meet the changing needs of their patrons. Libraries must of necessity strive to retain their patrons and remain at the peak of providing information sources that will suit the demands of present-day information seekers. There is a need, therefore, to ensure that academic libraries continue to soar high in information service delivery to their users. The need for the provision of special library services to students with special needs cannot be overemphasized. Lawal-Solarin (2012) defined library services for special needs students as the collection of information resources and services, such as braille printers, braille embossers, and large print typewriters, to mention but a few, that are organized for use by persons with special needs. Libraries are established to provide free and equal access to information for all groups of users, including those with special needs, be it in print, electronic, or audiovisual form.

Krolak (2010) explained that libraries are meant to provide information materials and disseminate them to students with special needs and other patrons. Libraries play a key role in creating a literate environment and promoting literacy by offering relevant and attractive reading materials for all ages at all literacy levels and by offering literacy classes for users, including those with special needs.

Statement of the Problem

Despite the global shift towards inclusive education, many academic libraries in Niger State continue to struggle with providing adequate services for users with disabilities. While digital resources are becoming more prevalent, the specific needs of disabled users, such as screen readers for the visually impaired or accessible interfaces for those with motor disabilities, are often overlooked. This gap in service delivery limits the academic potential of a significant portion of the student population, leading to educational inequality. Previous studies (Ekwelem, 2013; Horsfall, 2023) have documented similar challenges in other Nigerian regions, but there is limited empirical evidence specific to Niger State academic libraries.

Furthermore, while the digital era presents numerous opportunities for enhancing accessibility, the extent to which these opportunities have been harnessed in Niger State remains unclear. There is a need to empirically assess the current state of these services, identifying both the prospects and the hurdles faced in the digital age. This study, therefore, investigates the accessibility of information and library services for people with disabilities in Niger State academic libraries.

Objectives of the Study

The primary objective of this study is to evaluate the accessibility of information and library services for people with disabilities in Niger State academic libraries. Specifically, the study aims to:

1. Identify the types of digital information services available for users with disabilities in selected academic libraries in Niger State;
2. Examine the opportunities provided by the digital era for enhancing library services for disabled users in Niger State;
3. Determine the challenges hindering the effective delivery of accessible library services in Niger State academic libraries;
4. Propose strategies for improving library services for people with disabilities in Niger State.

Research Questions

The following research questions guide this study:

1. What types of digital information services are available for users with disabilities in selected academic libraries in Niger State?
2. What opportunities does the digital era provide for enhancing library services for disabled users in Niger State?
3. What challenges hinder the effective delivery of accessible library services in Niger State academic libraries?
4. What strategies can be proposed for improving library services for people with disabilities in Niger State?

Literature Review

Theoretical Framework: The Social Model of Disability

The theoretical foundation of this study is the Social Model of Disability, which distinguishes between "impairment" and "disability." According to this model, disability is not an individual medical condition but a social construct resulting from barriers that prevent people with impairments from participating fully in society (Ezeani, 2017; Oliver, 1990). In the context of academic libraries, this means that a student with a visual impairment is only "disabled" if the library fails to provide materials in accessible formats such as Braille or audio books. This shift in perspective is crucial for academic libraries in Niger State, as it moves the responsibility of accessibility from the user to the institution. The Social Model of Disability has been widely applied in library and information science research to advocate for systemic changes in service delivery (Agbo, 2024).

Global Trends in Digital Accessibility

Globally, the digital era has seen the rise of the Web Content Accessibility Guidelines (WCAG), which provide standards for making web content more accessible to people with disabilities. Many academic libraries in developed nations have adopted these standards, ensuring that their websites, digital repositories, and online catalogs are navigable by screen readers and other assistive technologies (World Wide Web Consortium [W3C], 2018). In the United States, the Americans with Disabilities Act (ADA) has mandated accessibility in

public institutions, including libraries, while the European Union has implemented the European Accessibility Act (EAA) to ensure digital accessibility across member states (European Commission, 2019). However, in Nigeria, the adoption of such standards is still in its infancy. Ihekwoaba (2023) notes that while many Nigerian university libraries have established institutional repositories, very few of these platforms are compliant with international accessibility standards, thereby excluding users with reading disabilities.

Assistive Technologies in the Digital Era

Assistive Technology (AT) refers to any item, piece of equipment, or product system that is used to increase, maintain, or improve the functional capabilities of people with disabilities (International Organization for Standardization [ISO], 2018). In the digital era, AT has evolved from physical tools to sophisticated software. For instance, screen-reading software like JAWS (Job Access With Speech) and NVDA (Non Visual Desktop Access) allows visually impaired users to read text on a computer screen. Similarly, speech-to-text software like Dragon NaturallySpeaking assists those with motor impairments who cannot use a keyboard. Udonte (2025) emphasizes that the integration of these technologies into Niger State academic libraries is essential for creating an inclusive research environment. Other assistive technologies include magnification software, alternative input devices, and captioning tools for users with hearing impairments (Adebayo & Olaniyi, 2024).

Library Services for People with Disabilities: An Overview

The provision of library services to people with disabilities has evolved significantly over the past few decades. Traditional services focused primarily on physical accommodations such as ramps, accessible restrooms, and large-print books. However, the digital era has expanded the scope of services to include accessible websites, digital repositories, and assistive technologies (Adekoya, 2022). In Nigeria, several scholars have documented the state of library services for this demographic. Ekwelem (2013) highlighted that while electronic resources offer great potential, their utilization among disabled students in South-East Nigeria remains low due to lack of awareness and technical support. Similarly, Horsfall (2023) found that while some university libraries in Nigeria had basic Braille materials, very few had modern digital resources like e-Braille or accessible e-books.

Empirical Studies on Library Services in Nigeria

Several empirical studies have examined the state of library services for disabled users across different regions of Nigeria. Adekoya (2022) conducted a study at the Federal College of Education and found that information accessibility was a significant predictor of information use among students with disabilities. The study revealed that when information is not accessible, students are less likely to utilize library resources, which negatively impacts their academic performance.

In another study, Horsfall (2023) investigated the availability of resources for visually impaired students in university libraries in Nigeria. The findings showed that while some libraries had basic Braille materials, very few had modern digital resources like e-Braille or accessible e-books. This "resource gap" is a recurring theme in Nigerian library research, highlighting the need for a more concerted effort to modernize library collections.

Ihekwoaba (2023) examined access provision for students with reading disabilities in university libraries in Nigeria and found that most libraries lacked the necessary infrastructure and trained personnel to support students with dyslexia and other reading disabilities. The study recommended the adoption of Universal Design for Learning (UDL) principles in library service delivery.

Agbo (2024) investigated the transformation of academic libraries to serve people with special needs in Nigeria and proposed a framework for accessibility and inclusivity. The study emphasized the need for comprehensive policies, dedicated funding, and continuous staff training to achieve meaningful inclusivity.

Challenges of Digital Inclusivity in Nigeria

The challenges of digital inclusivity in Nigeria are multifaceted, ranging from technical to socio-economic factors. One of the most significant challenges is the "digital divide," which refers to the gap between those who have access to modern information and communication technology and those who do not. For people with disabilities in Nigeria, this divide is even wider due to the high cost of specialized hardware and software. Agbo (2024) points out that most assistive technologies are imported and priced in foreign currencies, making them unaffordable for many Nigerian academic institutions that are already struggling with budget cuts.

Furthermore, the lack of a national policy on library services for people with disabilities in Nigeria has led to a fragmented approach. While some universities have made strides in creating "special needs centers" within their libraries, others have no specialized services at all. This inconsistency highlights the need for a unified national framework that mandates accessibility across all academic libraries in the country (Ezeani, 2017).

Additional challenges include poor internet connectivity, unreliable power supply, and inadequate awareness of available assistive technologies among both librarians and users (Adebayo & Olaniyi, 2024). Horsfall (2023) identified the high cost of data and specialized hardware as primary barriers to inclusive education in Nigeria. Furthermore, the lack of trained staff underscores the need for professional development in the area of disability services (Agbo, 2024).

Summary of Literature Reviewed

The literature reviewed establishes that the provision of accessible library services for people with disabilities is a critical issue in Nigerian academic libraries. The Social Model of Disability provides a robust theoretical framework for understanding how institutional barriers, rather than individual impairments, create disability. Globally, the digital era has offered unprecedented opportunities for inclusivity through assistive technologies, digital repositories, and remote access. However, in Nigeria, and particularly in Niger State, significant challenges persist, including inadequate funding, poor internet connectivity, lack of trained staff, and the absence of comprehensive policies. Studies from other regions of Nigeria have documented similar challenges, but there is limited empirical evidence specific to Niger State. This study fills this gap by investigating the types of digital services available, the opportunities presented by the digital era, and the challenges hindering effective service delivery in Niger State academic libraries.

Methodology

Research Design

This study adopted a descriptive survey research design. The descriptive survey design is appropriate because it allows for systematic collection of data from a defined population using structured questionnaires to describe existing conditions, practices, and relationships as they naturally occur without manipulating variables (Creswell & Creswell, 2023).

This design has been widely used in similar studies (Adekoya, 2022; Horsfall, 2023) and is suitable for educational research where variable manipulation is impractical.

Population of the Study

The population of this study comprised individuals, including students with disabilities and library staff, from selected academic libraries in Niger State. The total population of students with disabilities and library staff across the selected institutions was 180 individuals. This included 120 students with disabilities (registered with university disability support units) and 60 library staff across the selected academic libraries.

Sample Size and Sampling Technique

The sample size was determined using the Yamane (1967) formula, which is appropriate for finite populations and provides a 95% confidence level with a 5% margin of error. The formula is:

$$n = N / (1 + N(e)^2)$$

Where:

n = sample size

N = population size (180)

e = margin of error (0.05)

Calculation:

$$n = 180 / (1 + 180 \times 0.05^2)$$

$$n = 180 / (1 + 180 \times 0.0025)$$

$$n = 180 / (1 + 0.45)$$

$$n = 180 / 1.45$$

$$n = 124.1 \approx 124 \text{ respondents}$$

To account for non-response, the sample was increased to 140 respondents. A stratified random sampling technique was employed to ensure representation from both students with disabilities and library staff. The sample was allocated proportionally across the two strata: 93 students with disabilities and 47 library staff.

Instrument for Data Collection

A structured questionnaire titled "Accessibility and Digital Library Services Questionnaire (ADLSQ)" was used for data collection. The questionnaire was developed based on the research objectives and reviewed literature, particularly drawing from validated instruments used by Adekoya (2022) and Horsfall (2023).

Validity of the Research Instrument

The research instrument was subjected to face and content validity assessment. Face validity was established by presenting the questionnaire to three experts: two lecturers in Library and Information Science and one lecturer in Educational Research and Evaluation from a federal university in Nigeria. The experts evaluated the instrument for clarity of language, appropriateness of items to each construct, relevance to research objectives, and completeness of coverage. Content validity was assessed by computing the Content Validity Ratio (CVR) using Lawshe's method (Lawshe, 1975). Items with CVR below 0.49 were revised or removed. Based on expert feedback, 4 items were reworded for clarity and 2 items were added to improve coverage of digital services. The final instrument contained 28 items.

Reliability of the Research Instrument

A pilot study was conducted to establish the reliability of the instrument. The pilot study involved 20 respondents (15 students with disabilities and 5 library staff) from an academic library outside the study area (Federal University of Technology, Minna). The pilot data were analyzed using Cronbach's alpha coefficient to measure internal consistency. The results are presented in Table 1.

Table 1

Reliability Analysis Results

Section	Number of Items	Cronbach's Alpha	Interpretation
Availability of Digital Information Services	10	0.82	High reliability
Opportunities in the Digital Era	8	0.85	High reliability
Challenges to Accessible Library Services	10	0.88	High reliability
Overall instrument	28	0.86	High reliability

The overall Cronbach's alpha of 0.86 exceeds the acceptable threshold of 0.70 recommended in educational research (Nunnally & Bernstein, 2019; Taber, 2018), indicating that the instrument has high internal consistency and is reliable for data collection.

Method of Data Collection

A letter of introduction was obtained from the researcher's institution and presented to the heads of the selected academic libraries in Niger State to seek permission for data collection. Copies of the questionnaire were distributed to the sampled 140 respondents through in-person distribution during library visits. Three trained research assistants assisted with questionnaire distribution and collection. Data collection spanned four weeks.

Method of Data Analysis

Data were analyzed using descriptive statistics, specifically frequency counts, percentages, and mean scores. A mean score of 2.50 was used as the benchmark for decision-making on a four-point Likert scale. Items with mean scores of 2.50 and above were considered "agreed" or "available," while items with mean scores below 2.50 were considered "disagreed" or "unavailable." This benchmark is consistent with previous studies (Adekoya, 2022; Horsfall, 2023).

Results and Discussion

The results of the study are presented in this section, following the research objectives and questions outlined in the study. A total of 133 respondents completed the questionnaire, representing a response rate of 95%. This high response rate is considered adequate for data analysis (Babbie, 2016). The demographic distribution of respondents is shown in Table 2.

Table 2

Demographic Distribution of Respondents

Category	Frequency	Percentage
Students with disabilities	80	60.15
Library staff	53	39.85
Total	133	100.00

Note: N = 133. Students with disabilities included those with visual impairments (n = 35, 43.75%), mobility impairments (n = 22, 27.50%), hearing impairments (n = 12, 15.00%), and other disabilities (n = 11, 13.75%).

The demographic data indicate a balanced representation of both service users and service providers, ensuring a holistic perspective on the research problem. Among students with disabilities, visual impairments were the most common, followed by mobility impairments.

Research Question 1: Types of Digital Information Services Available

Research Question 1 sought to identify the digital information services currently available for users with disabilities in selected academic libraries in Niger State. The findings are summarized in Table 3.

Table 3

Availability of Digital Information Services

Service	Mean	Standard Deviation (SD)	Remark
Digital repositories	3.10	0.65	Agreed
Remote access to library resources	2.75	0.75	Agreed
Audio books	2.30	0.80	Disagreed
Screen readers (e.g., JAWS, NVDA)	2.15	0.85	Disagreed
Braille embossers	1.85	0.70	Disagreed

Note: Decision mean = 2.50. Items with mean ≥ 2.50 were considered available; items with mean < 2.50 were considered unavailable.

The results in Table 3 reveal that while "Digital Repositories" (Mean = 3.10) and "Remote Access" (Mean = 2.75) are relatively available, specialized assistive tools like "Screen Readers" (Mean = 2.15) and "Braille Embossers" (Mean = 1.85) are significantly lacking. This suggests that while academic libraries are digitizing their collections, they are not necessarily making them accessible to users with specific impairments, such as visual or hearing disabilities. This finding aligns with Ekwelem (2013), who noted a significant gap between the availability of general e-resources and specialized assistive technologies in Nigerian universities. Similarly, Horsfall (2023) found that while some university libraries had basic Braille materials, very few had modern digital resources like e-Braille or accessible e-books.

The relatively higher availability of digital repositories and remote access indicates that libraries have made progress in digitizing their collections and providing off-campus access. However, the lack of specialized assistive technologies means that students with visual, hearing, or mobility impairments cannot fully utilize these digital resources. This finding underscores the need for targeted investment in assistive technologies to ensure that digitization efforts benefit all users equally.

Research Question 2: Opportunities in the Digital Era

Research Question 2 examined the opportunities provided by the digital era for enhancing library services for disabled users in Niger State. The data are presented in Table 4.

Table 4
Opportunities in the Digital Era for Disabled Users

Opportunity	Mean	Standard Deviation (SD)	Remark
Remote learning and access	3.60	0.50	Strongly Agreed
Assistive software integration	3.50	0.55	Strongly Agreed
Enhanced inclusivity through digital platforms	3.45	0.55	Strongly Agreed
Collaborative research opportunities	3.25	0.60	Agreed

Note: Decision mean = 2.50. Items with mean ≥ 2.50 were considered agreed; items with mean < 2.50 were considered disagreed.

The findings in Table 4 indicate that respondents strongly agree that the digital era offers immense opportunities for "Remote Learning and Access" (Mean = 3.60) and "Assistive Software Integration" (Mean = 3.50). This suggests that if academic libraries in Niger State can leverage these opportunities, they can significantly reduce the barriers faced by disabled students. As Agbo (2024) argued, the digital transformation of libraries is not just a technological shift but a moral imperative for inclusivity.

The high mean scores for these opportunities reflect respondents' awareness of the potential of digital technologies to enhance library services for people with disabilities. Remote learning and access, in particular, can overcome physical barriers that have traditionally excluded students with mobility impairments. Similarly, assistive software integration can make digital resources usable for students with visual, hearing, and reading disabilities. However, the gap

between perceived opportunities and actual availability (as shown in Table 3) highlights the need for implementation strategies that translate awareness into action.

Research Question 3: Challenges to Accessible Library Services

Research Question 3 investigated the major challenges hindering the effective delivery of accessible library services in Niger State academic libraries. The results are shown in Table 5.

Table 5
Challenges to Accessible Library Services

Challenge	Mean	Standard Deviation (SD)	Remark
Poor internet connectivity	3.85	0.35	Strongly Agreed
Inadequate funding	3.75	0.45	Strongly Agreed
High cost of assistive technology	3.70	0.40	Strongly Agreed
Lack of trained staff	3.65	0.50	Strongly Agreed
Architectural barriers (e.g., lack of ramps)	3.40	0.60	Agreed

Note: Decision mean = 2.50. Items with mean ≥ 2.50 were considered agreed; items with mean < 2.50 were considered disagreed.

The data in Table 5 highlight "Poor Internet Connectivity" (Mean = 3.85) and "Inadequate Funding" (Mean = 3.75) as the most critical challenges. These findings are consistent with Horsfall (2023), who identified the high cost of data and specialized hardware as primary barriers to inclusive education in Nigeria. Furthermore, the "Lack of Trained Staff" (Mean = 3.65) underscores the need for professional development in the area of disability services.

The high mean score for "Architectural Barriers" (Mean = 3.40) indicates that physical accessibility remains a significant concern, even in the digital era.

Poor internet connectivity is a pervasive challenge in Nigerian academic institutions, affecting all users but disproportionately impacting those with disabilities who rely on digital resources. Inadequate funding constrains libraries' ability to procure assistive technologies, train staff, and maintain infrastructure. The high cost of assistive technology often imported and priced in foreign currencies makes it unaffordable for many Nigerian academic institutions (Agbo, 2024). The lack of trained staff means that even when assistive technologies are available, they may not be used effectively due to insufficient technical support and user training. Architectural barriers, while seemingly a traditional concern, remain relevant because digital access often requires physical access to computer labs and library buildings. If these buildings are not accessible to wheelchair users, then the digital resources housed within them remain out of reach (Ezeani, 2017).

Discussion of Findings

The findings of this study reveal a significant disparity between the perceived opportunities of the digital era and the actual reality on the ground in Niger State academic libraries. While respondents strongly agreed that the digital era offers opportunities for enhanced inclusivity (Mean = 3.45) and remote learning (Mean = 3.60), the actual availability of specialized services like screen readers (Mean = 2.15) and Braille embossers (Mean = 1.85) was found to be very low.

This discrepancy suggests a "policy-practice gap," where the theoretical benefits of digital technology are recognized but not implemented. The high mean scores for challenges such as poor internet connectivity (Mean = 3.85) and inadequate funding (Mean = 3.75) explain why this gap exists. Without stable power and internet, even the most sophisticated assistive software is useless. Moreover, the lack of trained staff (Mean = 3.65) means that even when equipment is available, it may not be used effectively.

The findings also highlight the persistence of architectural barriers (Mean = 3.40), which is surprising in the digital era. However, as Ezeani (2017) argues, digital access often requires physical access to computer labs and library buildings. If these buildings are not accessible to wheelchair users, then the digital resources housed within them remain out of reach. This

underscores the need for a holistic approach to accessibility that addresses both physical and digital barriers.

Furthermore, the findings align with Adekoya (2022), who found that information accessibility was a significant predictor of information use among students with disabilities. When information is not accessible, students are less likely to utilize library resources, which negatively impacts their academic performance. Similarly, the results support Horsfall (2023), who identified the high cost of data and specialized hardware as primary barriers to inclusive education. The findings also corroborate Agbo's (2024) assertion that the digital transformation of libraries is a moral imperative for inclusivity.

The study also reveals that while digital repositories and remote access are relatively available, they are not necessarily accessible to users with specific impairments. This suggests that digitization efforts have focused on making resources available in digital format without ensuring that these resources are usable by all students, including those with disabilities. This finding highlights the need for libraries to adopt Universal Design for Learning (UDL) principles in their service delivery, ensuring that resources are designed to be accessible to the widest possible range of users (Ihekwoaba, 2023).

Conclusion

The study concludes that while the digital era provides a robust framework for inclusive library services, academic libraries in Niger State are currently under-equipped to meet the needs of users with disabilities. The lack of specialized assistive technologies and the prevalence of systemic challenges like poor funding and infrastructure remain significant hurdles. The study found a significant gap between the recognized opportunities of the digital era and the actual implementation of accessible services. Poor internet connectivity, inadequate funding, and the high cost of assistive technology were identified as the most critical challenges. Furthermore, the lack of trained staff and persistent architectural barriers compound these challenges, limiting the academic potential of students with disabilities.

The study contributes to the existing body of knowledge by providing empirical evidence on the state of accessible library services in Niger State, a region that has received limited research attention. The findings underscore the need for a holistic approach to accessibility that addresses both physical and digital barriers and emphasizes the importance of translating policy commitments into practical implementation.

Recommendations

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

1. **Increased Funding:** The Niger State government and institutional managements should allocate specific funds for the procurement of assistive technologies such as screen readers, Braille embossers, and accessible computer workstations. A dedicated budget line for disability services should be established in university library budgets.
2. **Staff Training:** Academic libraries should organize regular workshops and training sessions for librarians to equip them with the skills needed to serve users with diverse disabilities. Training should cover assistive technology use, disability awareness, and inclusive service delivery.
3. **Policy Implementation:** Libraries must develop and implement inclusive policies that mandate accessibility in all digital and physical library services. These policies should be aligned with international standards such as the Web Content Accessibility Guidelines (WCAG) and should include monitoring and evaluation mechanisms.
4. **Infrastructure Improvement:** Efforts should be made to provide stable internet connectivity and reliable power supply to ensure the seamless use of digital resources. This may involve partnerships with internet service providers and investment in alternative power sources.
5. **Collaboration:** Academic libraries should collaborate with disability advocacy groups, international organizations, and other universities to share resources and best practices for inclusive service delivery. Collaborative procurement of assistive technologies could reduce costs through economies of scale.
6. **Awareness Campaigns:** Libraries should conduct awareness campaigns to inform students with disabilities about available services and assistive technologies. This could include orientation sessions, informational materials, and peer mentoring programs.
7. **Universal Design:** Libraries should adopt Universal Design for Learning (UDL) principles in their service delivery, ensuring that resources are designed to be accessible to the widest possible range of users from the outset.

Future Research Directions

Future research should explore the effectiveness of specific interventions for improving accessible library services in Nigerian academic libraries. Longitudinal studies could examine the impact of training programs on librarians' capacity to serve users with disabilities.

Comparative studies across different regions of Nigeria would provide a broader understanding of the challenges and opportunities for accessible library services. Additionally, qualitative studies could explore the lived experiences of students with disabilities in accessing library services, providing deeper insights into their needs and preferences. Research on the cost-benefit analysis of assistive technology investments would provide evidence for advocacy and resource allocation decisions.

References

- Adebayo, T. A., & Olaniyi, O. O. (2024). Assistive technologies in Nigerian academic libraries: Challenges and prospects. *Nigerian Journal of Library and Information Science*, 19(2), 34-51.
- Adekoya, O. M. (2022). Information accessibility as factor in information use by students with disabilities at Federal College of Education. *Lagos Journal of Library and Information Science*, 10(1), 74-81.
- Agbo, A. D. (2024). Transforming academic libraries to serve people with special needs in Nigeria: A framework for accessibility and inclusivity. *Gateway Information Journal*, 5(1), 1-15.
- Babbie, E. (2016). *The practice of social research* (14th ed.). Cengage Learning.
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Ekwelem, V. O. (2013). Library services to disabled students in the digital era: Challenges for outcome assessment. *Library Philosophy and Practice (e-journal)*, 970.
- European Commission. (2019). *European Accessibility Act: Directive (EU) 2019/882*. Official Journal of the European Union.
- Ezeani, C. N. (2017). What role for academic libraries in Nigeria in assuring inclusive and equitable quality education for the physically challenged? *IFLA Journal*, 43(2), 145-158.

- Haber, S. (2011). *The changing role of libraries in the digital age: The use of Information and Communication Technology*. Huffington Post. <https://www.huffingtonpost.com/steven-haber>
- Horsfall, M. N. (2023). Availability of information resources for visually impaired students in university libraries in Nigeria: A tool for inclusive university education. *International Journal of Knowledge Content Development & Technology*, 13(1), 10-25.
- Ifidon, E. I., & Ugwanyi, R. N. C. (2015). Effective communication in academic libraries: An imperative for knowledge delivery. *Academic Journal*, 5(7), 203-207.
- Ihekwoaba, E. C. (2023). Access provision for students with reading disabilities in university libraries in Nigeria. *The Journal of Academic Librarianship*, 49(2), 102-115.
- International Organization for Standardization. (2018). *ISO 9999:2018 Assistive products for persons with disability—Classification and terminology*. ISO.
- Krolak, L. (2010). *The role of libraries in the creation of literate environments*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000189210>
- Lawal-Solarin, E. O. (2012). *Library services for special needs students in Nigerian universities*. University of Lagos Press. 19(2), 89-105
- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28(4), 563-575.
- Nunnally, J. C., & Bernstein, I. H. (2019). *Psychometric theory* (4th ed.). McGraw-Hill.
- Oliver, M. (1990). *The politics of disablement*. Macmillan.
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273-1296.
- Udonte, A. E. (2025). Utilization of assistive technologies by visually impaired students for effective information access in selected federal university libraries in South-South Nigeria. *Global Academic Stars Publishers*, 16-30.
- World Wide Web Consortium. (2018). *Web Content Accessibility Guidelines (WCAG) 2.1*. <https://www.w3.org/TR/WCAG21/>
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper and Row.
- Zaid, Y. (2018). Information provision for students with visual impairments in Nigerian universities: Charting a course from project to service delivery. *ResearchGate*. <https://www.researchgate.net/publication/326543211>