

ARTIFICIAL INTELLIGENCE INFORMATION NEEDS AND KNOWLEDGE SEEKING BEHAVIOUR OF VISUALLY IMPAIRED STUDENTS IN PUBLIC UNIVERSITY LIBRARIES IN SOUTH EAST NIGERIA

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Abstract

This study examined artificial intelligence information needs and knowledge seeking behaviour of visually impaired students in public university libraries in South-East Nigeria. Three research questions guided the study. Descriptive survey research design was used for this study. The population of the study comprised all the 172 visually impaired students in the five Federal universities in South-East Nigeria. Census study was conducted and there is no sampling for the study since the population is of a manageable number. Data for this study was collected using structured questionnaire titled "Artificial Intelligence Information Needs and Knowledge Seeking Behaviour Questionnaire" (AIINKSBQ). The face and content validity of the research instrument was established through expert judgment. Cronbach's Alpha method was used to determine the internal consistency of the questionnaire items and an overall reliability coefficient of 0.79 was obtained. The data gathered through questionnaire were analyzed using descriptive statistics of mean and standard deviation. The findings revealed that visually impaired students in South-East Nigerian university libraries have strong and diverse information needs relating to Artificial Intelligence, particularly AI technologies that can enhance independent learning and improve access to academic resources. It was also found that visually impaired students adopt a combination of assistive technologies, peer collaboration, and human support in their information-seeking behaviour. Based on the findings, it was recommended amongst others that

libraries should strengthen hybrid support systems by training librarians and introducing peer-mentorship programs specifically for visually impaired students.

Keywords: Artificial Intelligence, Information Needs, Knowledge Seeking Behaviour, University Libraries, Visually Impaired Students

Introduction

University libraries occupy a central position in the academic ecosystem of higher education institutions. They are established to support teaching, learning, research, and community service by providing access to diverse information resources that facilitate knowledge creation and dissemination. As centres of intellectual development, university libraries are expected to provide equitable access to information for all categories of users, irrespective of their physical or sensory conditions. In recent years, the rapid advancement of digital technologies has transformed the operations of university libraries, enabling access to electronic resources, digital repositories, and online information services. However, while these technological developments have expanded information access for many users, concerns remain regarding the extent to which students with visual impairments benefit from these innovations (Madunmere, Mbajiorgu, & Uwakwe, 2019).

Visually impaired students constitute a unique category of library users whose academic success depends largely on their ability to access and utilize information resources in formats that accommodate their disabilities. Nwachukwu and Eze (2022) described visually impaired students as learners whose disabilities create functional

limitations in accessing, navigating, and processing information resources. Similarly, Madunmere et al. (2019) observed that visual impairment often presents significant challenges in interacting with conventional information systems and digital interfaces. In the university environment, visually impaired students require specialized support mechanisms and adaptive technologies to participate effectively in academic activities. Consequently, understanding their information needs and knowledge-seeking behaviour has become increasingly important in the pursuit of inclusive education and equal learning opportunities.

Information needs refer to the recognition of a gap in knowledge that motivates individuals to seek information for problem-solving, decision-making, learning, or research purposes. According to Chen and Chau (2020), information needs encompass the specific knowledge requirements necessary for accomplishing academic and personal goals. For visually impaired students, information needs are often complex because they require information in accessible formats that can be easily retrieved, interpreted, and utilized. Their information needs may include access to course materials, scholarly publications, electronic databases, institutional information, and research resources necessary for academic achievement. The satisfaction of these needs largely depends on the availability of accessible technologies and support services within university libraries (Lee & Park, 2018; Nguyen & Waller, 2021).

The increasing integration of Artificial Intelligence (AI) into educational and library services has created new opportunities for addressing the information needs of

visually impaired students. Russell and Norvig (2020) defined Artificial Intelligence as the study of intelligent agents capable of perceiving their environment and taking actions that maximize the likelihood of achieving specified goals. Goodfellow, Bengio and Courville (2016) viewed AI as computational systems capable of learning patterns and improving performance through experience. Within university libraries, AI technologies have the potential to enhance information access through intelligent search systems, text-to-speech applications, speech recognition technologies, optical character recognition tools, machine learning algorithms, and virtual assistants. These technologies enable visually impaired students to interact more independently with information systems and digital resources.

The AI information needs of visually impaired students extend beyond mere access to computers and internet services. Rather, they involve the availability of intelligent technologies that support independent information retrieval, processing, and utilization. Nguyen and Waller (2021) emphasized that Natural Language Processing technologies facilitate text-to-speech and speech-to-text interactions that improve access to digital content. Similarly, Lee and Park (2018) noted that intelligent recommendation systems can assist users in locating relevant information resources based on their preferences and academic requirements. AI-powered technologies such as screen readers, voice assistants, predictive text applications, and optical character recognition systems therefore constitute critical information needs for visually impaired students seeking academic information in university libraries.

Knowledge-seeking behaviour refers to the actions, strategies, and processes individuals employ in searching for, accessing, evaluating, and utilizing information. Agabirwe (2020) explained that knowledge-seeking behaviour encompasses the various ways individuals interact with information systems to satisfy identified information needs. For visually impaired students, knowledge-seeking behaviour is influenced by the accessibility of information resources, the availability of assistive technologies, digital literacy skills, and institutional support structures. Garcia, Smith and Tran (2022) observed that when information systems are accessible and user-friendly, students demonstrate greater independence and engagement in information seeking. Conversely, inaccessible systems often result in dependence on peers, library staff, or alternative sources of information.

Despite the potential benefits of AI technologies, visually impaired students continue to encounter numerous challenges in seeking knowledge within university libraries. Wanyama and Kimani (2021) noted that accessibility extends beyond the physical presence of technologies to include their usability, compatibility, and effectiveness in meeting users' needs. In many university libraries, challenges such as inadequate assistive technologies, poor internet connectivity, limited technical support, and insufficient accessibility features continue to hinder effective information access. Iroeze, Chima-James, Nneka and Opara (2018) reported that outdated software applications and inadequate infrastructure significantly limit the utilization of digital information resources by students with disabilities. These barriers often reduce the

effectiveness of available information services and negatively affect students' academic experiences.

In addition to technological limitations, institutional and human-related factors also contribute to the challenges experienced by visually impaired students. Kiambati (2021) observed that inadequate training in the use of assistive technologies often compels students to depend on library personnel or colleagues when accessing information resources. Similarly, Abdulsalam, Aina, Issa and Fajonyomi (2023) argued that digital literacy competencies play a crucial role in determining the extent to which students benefit from available technologies. Osadebe, Onuigbo and Ewa (2019) further reported that the absence of structured training programmes and inadequate support services frequently limit the capacity of visually impaired students to utilize digital resources effectively. These challenges collectively affect their ability to satisfy information needs and engage in independent knowledge-seeking activities.

Empirical evidence has consistently highlighted the importance of accessible information services for visually impaired students. Horsfall and Opara (2023) found that the availability of accessible information resources in university libraries remains inadequate, thereby limiting inclusive educational opportunities. Ibrahim, Quadir and Abdurrahman (2024) reported that students with visual impairments continue to experience barriers in accessing digital information resources despite technological advancements. Similarly, Osman and Kwafoa (2020) identified inadequate assistive technologies and poor accessibility frameworks as major obstacles to information

access among students with disabilities. Phukubje and Ngoepe (2017) also emphasized the need for libraries to adopt inclusive service models that address the diverse information needs of visually impaired users. Collectively, these studies suggest that effective access to information remains a significant concern requiring further investigation.

The motivation for this study stems from the persistent concerns regarding the ability of visually impaired students in public university libraries in South-East Nigeria to access information and engage effectively in knowledge-seeking activities. Although technological innovations, particularly AI-driven solutions, have the potential to improve information access and academic participation, observations indicate that many visually impaired students continue to face substantial barriers in utilizing library resources. Furthermore, existing studies have largely concentrated on general accessibility issues with limited attention given to the specific AI information needs of visually impaired students and the challenges influencing their knowledge-seeking behaviour. It is against this background that this study investigates the information needs and knowledge-seeking behaviour of visually impaired students in public university libraries in South-East Nigeria, with particular emphasis on identifying their AI information needs and exploring the challenges they encounter in seeking knowledge.

Statement of the Problem

Despite the growing integration of digital technologies into library operations, many visually impaired students still encounter serious difficulties in accessing and utilizing information resources effectively. Available evidence and observations suggest that many university libraries lack adequate AI-driven assistive technologies capable of supporting visually impaired users. In institutions where some assistive facilities exist, they are often outdated, poorly maintained, inaccessible, or incompatible with users' needs. Furthermore, irregular electricity supply, poor internet connectivity, inadequate funding, insufficient technical support, and lack of structured user training programmes continue to limit the effective utilization of available technologies. As a result, many visually impaired students still rely heavily on peers, library staff, or personal devices to access academic information that should ordinarily be independently accessible within the library environment.

The persistence of these challenges may have serious academic, psychological, and social consequences for visually impaired students. Inadequate access to AI-based information resources may reduce students' ability to seek knowledge independently, limit participation in research activities, weaken academic performance, and discourage effective use of library services. It may also contribute to frustration, low self-esteem, digital exclusion, and inequality in educational opportunities. Consequently, visually impaired students may experience difficulties competing academically with their sighted counterparts despite possessing similar intellectual abilities. Although previous studies have examined accessibility challenges and library services for students with

disabilities, most available studies focused largely on general accessibility issues with limited attention to the specific AI information needs of visually impaired students and how these needs influence their knowledge-seeking behaviour in public university libraries in South-East Nigeria.

Research Questions

The following research questions guided the study:

1. What are the artificial intelligence information needs of visually impaired students in university libraries in South-East Nigeria?
2. What are the perceived challenges faced by visually impaired students in seeking knowledge in university libraries in South-East, Nigeria?
3. What knowledge-seeking behaviours do visually impaired students exhibit towards meeting AI needs in university libraries in South-East, Nigeria?

Theoretical Underpinning

Technology Acceptance Model (TAM) by Davis in 1989

The Technology Acceptance Model (TAM) was propounded by Fred D. Davis in 1989. TAM posits that an individual's decision to use a technology is primarily determined by their behavioural intention to use it, which is the immediate precursor to actual system use. Behavioral intention, in turn, is shaped by two key beliefs about the technology. The first, perceived usefulness (PU), is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989, p. 320). In essence, if a user believes that a technology will make their tasks more efficient, productive, or effective such as speeding up work or

improving output quality they are more likely to intend to use it. For example, a worker might perceive a new software system as useful if it reduces manual data entry time.

The second construct, perceived ease of use (PEOU), refers to "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989, p. 320). This reflects the user's perception of how simple or intuitive the technology is to operate. A system that requires minimal training or mental effort such as one with a clear interface or straightforward commands is seen as easier to use, increasing the likelihood of acceptance. Davis emphasized that perceived ease of use not only directly influences behavioral intention but also indirectly affects perceived usefulness. If a technology is easy to use, users are more likely to recognize its utility, as the reduced effort enhances their ability to leverage its benefits effectively.

The original TAM framework is visually represented as a causal model with arrows indicating relationships: external variables (e.g., system design features, training, user characteristics) influence perceived usefulness and perceived ease of use; these two beliefs then determine attitude toward using the technology, which shapes behavioral intention, ultimately leading to actual system use. Notably, Davis found that attitude, while part of the model, was less significant than direct links from perceived usefulness and ease of use to intention, leading to later refinements where attitude was sometimes omitted for parsimony. In its essence, TAM's original form is a concise, user-centered model focused on cognitive perceptions rather than emotional or social factors, distinguishing it from broader theories like TRA. It provides a foundational lens

for studying technology adoption, adaptable to contexts like visually impaired students using AI tools in libraries, by framing their acceptance based on how useful and effortless they find these technologies.

In relation to this study, perceived usefulness directly relates to how visually impaired students believe that AI tools (e.g., screen readers, voice recognition software, AI-powered cataloguing systems) can improve their access to academic resources and fulfill their information needs. If students perceive these technologies as helpful in completing their academic tasks more efficiently, they are more likely to embrace and use them frequently. For students with visual impairments, accessibility features—such as voice-guided navigation, tactile interfaces, and audio search functionalities—play a crucial role in determining whether the technology is user-friendly. If AI tools are difficult to navigate or lack inclusive design, their adoption may be hindered, regardless of their usefulness. While TAM covers specific aspects of the variables of the study, it lacks in the area of knowledge seeking; it does not cover that area completely. It is against this backdrop that a second theory will be introduced to cover the loophole in TAM as it relates to this study.

Method

Descriptive survey research design was used for this study. The population of the study comprised all the 172 visually impaired students in the five Federal universities in South-East Nigeria. Data was obtained from the University libraries as regards the number of enrolled visually impaired students across the five Federal universities in

South-East. The entire population of 172 visually impaired students in the five Federal Universities in South-East, Nigeria was used as sample for this study. Census study was conducted and there is no sampling for the study since the population is of a manageable number. Data for this study was collected using structured questionnaire titled "Artificial Intelligence Information Needs and Knowledge Seeking Behaviour Questionnaire" (AIINKSBQ). The questionnaire is divided into three clusters. Cluster I examines the AI information needs of visually impaired students using a 10-item questionnaire. Respondents rated each item in terms of Importance and Performance on a 4-point scale. The Need Index (NI) was then computed for each item by subtracting the Performance Mean (PM) from the Importance Mean (IM).

Cluster II focused on the knowledge-seeking behaviour of visually impaired students through a 10-item 4-point Likert scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD), assigned nominal values of 4, 3, 2, and 1 respectively.

Cluster III examined the perceived challenges encountered by visually impaired students in seeking AI information, measured with a 10-item 4-point Likert scale (Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The face and content validity of the research instrument was established through expert judgment. The questionnaire was pilot-tested on 10 visually impaired students of Delta State University, Abraka. The Cronbach's Alpha method was used to determine the internal

consistency of the questionnaire items and the reliability coefficient of 0.76, 0.70 and 0.84 were obtained for clusters I, II and III respectively

The researcher employed the services of three briefed research assistants who assisted in the distribution of questionnaires, coordination of respondents, and retrieval of completed instruments across the selected public universities in South-East Nigeria. Out of 172 copies of visually impaired students that were given copies of the instruments, 170 copies were retrieved. This gives a retrieval rate of 98%.

The data gathered through questionnaire were analyzed using descriptive statistics of mean and standard deviation. Cluster I employed the Need Index Analysis to determine the gaps between the perceived importance of artificial intelligence information needs and their current level of availability/performance among visually impaired students in university libraries in South-East Nigeria. The respondents were required to rate each item under two dimensions:

Importance Mean (IM) – indicating the extent to which each AI information need is considered important.

Performance Mean (PM) – indicating the extent to which the AI information need is currently available or adequately provided in university libraries.

The Need Index (NI) for each item was computed using the formula:

$$NI = IM - PM$$

Where:

NI = Need Index

IM = Importance Mean

PM = Performance Mean

Arithmetic mean was used to analyze data related to research questions two and three posed and standard deviation was used to determine the homogeneity or otherwise of the respondents' mean scores.

Results and Discussion

Research Question 1: What are the artificial intelligence information needs of visually impaired students in university libraries in South-East Nigeria?

Table 1: Respondents' ratings on artificial intelligence information needs of visually impaired students in university libraries in South-East Nigeria (N = 170)

S/N	AI information needs of visually impaired students	IM	PM	NI (IM-PM)	SD	Decision
1	Natural Language Processing (NLP) for text-to-speech and speech-to-text conversion.	3.76	2.41	1.35	0.62	High Need
2	Machine Learning Algorithms that analyze user behaviour to provide personalized recommendation for academic resources.	3.54	2.33	1.21	0.70	High Need
3	Computer vision for object recognition and accessibility enhancements, allowing students to navigate library environment with ease.	3.49	2.12	1.37	0.75	High Need
4	Assistive AI Technologies, including screen readers, voice assistants, and predictive text tools, which help students to engage with digital learning materials.	3.82	2.56	1.26	0.58	High Need

5	Voice controlled assistants (e.g Google Assistant and Siri)	3.61	2.47	1.14	0.66	High Need
6	Advanced AI solutions like real-time text summarization.	3.43	2.05	1.38	0.81	High Need
7	Audio books	3.71	2.64	1.07	0.60	Moderate Need
8	Optical Character recognition (OCR) tools to read printed materials.	3.68	2.31	1.37	0.69	High Need
9	Big Data Analytics to process and organize large volumes of academic content, ensuring efficient information retriever.	3.29	1.98	1.31	0.84	High Need
10	AI-enhance Braille translator	3.57	2.16	1.41	0.73	High Need
Cluster Mean		3.59	2.30	1.29		High Need

Note: IM = Importance Mean; PM = Performance Mean; NI = Need Index

The table 3 presents the need index analysis of the artificial intelligence information needs of visually impaired students in university libraries in South-East Nigeria. The result revealed that all the items recorded positive need index values, indicating gaps between the importance of the AI technologies and their current level of availability or performance in university libraries. AI-enhanced Braille translator had the highest need index (NI = 1.41), followed by advanced AI solutions like real-time text summarization (NI = 1.38). This means that these technologies are highly needed. The grand mean need index of 1.29 indicates an overall high need for AI-driven assistive technologies among visually impaired students in university libraries in South-East Nigeria.

The findings showed that visually impaired students in South-East Nigerian university libraries have strong and diverse AI information needs, particularly around artificial technologies that can support independent learning. These needs are largely shaped by the desire for improved access to academic materials through tools that

reduce dependence on sight-based interaction. In line with this, Madumere, Mbajiorgu, and Uwakwe (2019) similarly observed that visually impaired students, while sharing similar academic information needs with sighted peers, require additional support services such as assistive technologies to bridge accessibility gaps in libraries. This supports the present finding that AI-driven tools are not luxury additions but essential academic enablers. However, unlike the more traditional assistive focus in earlier studies, Garcia, Smith and Tran (2022) reported that visually impaired students increasingly require advanced AI systems such as recommendation tools, intelligent navigation systems, and automated summarization features to enhance independent access to academic content. This aligns with the current findings but also expands it by showing a shift toward more intelligent, adaptive systems. The present study therefore reinforces this progression while highlighting that such advanced AI needs are still emerging in South-East Nigerian universities.

Research Question 2: What knowledge-seeking behaviours do visually impaired students exhibit towards meeting AI needs in university libraries in South-East, Nigeria?

Table 2: Respondents’ ratings on knowledge-seeking behaviours do visually impaired students exhibit towards meeting AI needs in university libraries in South-East, Nigeria

S/N	Knowledge Seeking Behaviour of visually impaired students	X	SD	Remarks
24	Independently locate, access and utilize academic resources	2.41	0.83	Disagree
25	Use of Assistive Technologies such as screen reader, text-to-speech software, Braille display, audio books and talking books	3.22	0.61	Agree
26	Use of voice command	3.11	0.74	Agree
27	Through Optical Character recognition (OCR) tools to	2.68	0.79	Agree

	read printed materials.			
28	Seeking human assistance such as librarian and library guides trained to support them.	3.61	0.55	Strongly Agree
29	Engaging with peer support group.	3.44	0.63	Agree
30	Depending on personal digital devices with better accessibility features.	3.28	0.70	Agree
31	Collaborative information seeking: asking classmate to help search for materials.	3.36	0.66	Agree
32	Physical navigation in the library using white cane or mobility aids	3.73	0.49	Strongly agree
33	Relying on AI powered tools such as (Google Assistant, ChatGPT) for quick information retriever.	3.05	0.77	Agree
	Cluster Mean	3.19		Agree

Table 2 presents the mean and standard deviation ratings of respondents on the knowledge-seeking behaviours of visually impaired students towards meeting their artificial intelligence information needs in university libraries in South-East Nigeria. High mean scores for seeking help from librarians ($\bar{X} = 3.61$) and using mobility aids ($\bar{X} = 3.73$) indicate strong reliance on non-digital support. Assistive technologies such as screen readers and text-to-speech tools are moderately used, while peer collaboration and personal devices also support information access. However, independent information seeking recorded a low mean ($\bar{X} = 2.41$), showing limited autonomy. The cluster mean of 3.19 indicates that, on average, visually impaired students in university libraries in South-East Nigeria agree that they exhibit various knowledge-seeking behaviours in accessing AI information needs in university libraries in South-East, Nigeria. The standard deviation values, ranging from 0.49 to 0.83, indicate that respondents' views were relatively close, showing consistency in responses across the sampled population.

The findings showed that visually impaired students combine assistive technologies, peer collaboration, and human support in their information-seeking behaviour. Rather than relying solely on independent digital navigation, they adopt blended strategies that include screen readers, assistance from librarians, and peer support. This reflects a transitional stage of digital independence. This is consistent with Aladeniyi, Owokole and Zamani (2024), who found that visually impaired students frequently depend on Braille resources and human assistance due to limited access to digital tools. Similarly, Arowosaye (2022) reported that visually impaired students rely heavily on lecturers, peers, and librarians, particularly when digital systems are not fully accessible or stable. However, Adeyalo and Ogunniyi (2020) observed that university students generally prefer internet-based resources and independent searching, which contrasts with the present finding and highlights the additional barriers faced by visually impaired students.

Research Question 3: What are the perceived challenges faced by visually impaired students in seeking knowledge in university libraries in South-East, Nigeria?

Table 3: Respondents’ ratings on the perceived challenges faced by visually impaired students in seeking knowledge in university libraries in South-East, Nigeria

S/N	Challenges of visually impaired students in seeking AI information in the library	X	SD	Remarks
34	Struggle with AI due to inadequate knowledge of their functionality.	3.41	0.68	Agree
35	Inaccessible AI platform and tools	3.55	0.60	Strongly agree
36	Difficulty to navigate and optimize technological resources effectively.	3.47	0.66	Agree

37	Dependent on others to interpret visual content.	3.62	0.54	Strongly agree
38	Limited institutional support.	3.58	0.63	Strongly agree
39	Poor ICT infrastructure.	3.66	0.53	Strongly agree
40	Struggle to use coding or programming tools required for AI.	2.94	0.81	Agree
41	Internet connection is often too slow or unstable to access AI tools.	3.70	0.72	Strongly Agree
42	Limited availability of AI materials tailored for visually impaired students.	3.49	0.67	Agree
43	Not familiar with accessible AI platforms designed for visually impaired users.	3.38	0.72	Agree
Cluster Mean		3.48		Agree

Table 3 indicate that visually impaired students in university libraries in South-East Nigeria experience significant challenges in accessing AI information. High mean scores for poor ICT infrastructure ($\bar{X} = 3.66$), unstable internet ($\bar{X} = 3.70$), and dependency on others to interpret visual content ($\bar{X} = 3.62$) show severe accessibility barriers. Inaccessible AI platforms and limited institutional support also recorded strong agreement, indicating systemic limitations. Difficulty with coding tools had the lowest mean ($\bar{X} = 2.94$). 3.48, which is above the criterion mean of 2.50. This implies that the respondents generally agree that these challenges are prevalent. The standard deviations, ranging from 0.53 to 0.81, indicate moderate variability in responses, suggesting a reasonable level of agreement among respondents with slight differences in perception across items.

The findings revealed that visually impaired students face persistent challenges such as poor ICT infrastructure, unstable internet connectivity, limited institutional support, and difficulties in using complex AI tools. These challenges significantly affect their ability to independently access AI information resources. In agreement with this,

Kiambati (2021) identified poor internet connectivity, inadequate training, and weak technological infrastructure as major barriers affecting visually impaired students in Kenyan university libraries. Similarly, Shilongo (2022) reported that inadequate assistive technology, poor digital navigation systems, and lack of supportive policies limit effective information access for visually impaired users. Omeluzor and Aluko-Arowolo (2025) also highlighted infrastructural limitations and low institutional readiness as key barriers to AI adoption in Nigerian university libraries, reinforcing the present findings.

Recommendations

Based on the findings, the following recommendations were made:

1. Libraries should strengthen hybrid support systems by training librarians and introducing peer-mentorship programs specifically for visually impaired students. Orientation sessions on effective integration of assistive technologies with human support should be made mandatory.
2. University libraries in South-East Nigeria should also develop user-friendly AI-enhanced guides and tutorials to gradually build students' confidence in more independent information seeking while maintaining necessary human support structures.
3. Urgent steps must be taken to upgrade ICT infrastructure across university libraries, including provision of stable high-speed internet, reliable power supply, and fully accessible digital platforms. Institutions should recruit or train

more staff with specialized skills in disability support and AI assistive technologies.

Conclusion

The study concludes that visually impaired students in public university libraries in South-East Nigeria demonstrate strong and multifaceted information needs concerning Artificial Intelligence, especially AI technologies that promote independent learning, academic productivity, and greater access to information resources. Despite this growing demand, disparities in the accessibility and availability of AI information tools between federal and state-owned university libraries create unequal learning opportunities and hinder full participation. The study further establishes that visually impaired students rely on a combination of assistive technologies, peer networks, and human support to meet their information needs. Consequently, strengthening inclusive AI infrastructure and support services is essential for equitable information access.

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