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ACADEMIC LIBRARIANS' AWARENESS, USE, AND ETHICAL PERSPECTIVES ON GENERATIVE AI IN INFORMATION RESEARCH WITHIN NIGERIAN HIGHER EDUCATION

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Abstract

This study examined awareness, adoption, ethical concerns, and institutional policy adequacy regarding generative AI (GenAI) tools among academic librarians in Nigeria (N = 314). The study was guided by 6 research question and 6 research objectives. Data were collected using a structured questionnaire covering awareness, adoption, ethical perceptions, and policy frameworks. Results indicated high awareness of GenAI tools (M = 3.80, SD = 0.68), with familiarity and understanding of potential risks scoring highest (M = 3.99–3.95). Adoption was moderate (M = 3.33, SD = 0.72), with the highest uptake in recommending GenAI tools to users (M = 3.64) and the lowest integration into workshops (M = 2.99). Librarians expressed very high ethical concerns (M = 3.96, SD = 0.70), particularly regarding plagiarism (M = 4.10) and hallucinated content (M = 3.98). Institutional policies were perceived as inadequate (M = 2.90, SD = 1.28). Correlation analysis revealed that awareness strongly predicted adoption ($r = .56$, $p < .001$), while policy adequacy moderately reduced ethical concerns ($r = -.34$, $p < .001$). Group analyses indicated federal librarians had higher awareness (M = 3.92 vs. 3.61, $p = .005$) and adoption (M = 3.48 vs. 3.27, $p = .036$) than state librarians. The findings highlight the need

for structured training, robust ethical guidelines, and comprehensive institutional AI policies to support responsible GenAI integration in academic libraries.

Keywords: Generative AI, Academic Libraries, Awareness, Adoption, Ethical Concerns, Policy Adequacy

Introduction

Academic libraries have undergone significant transformation over recent decades, evolving from custodians of physical collections into digitally mediated gateways to global scholarship. Contemporary academic libraries now provide access to online databases, electronic journals, institutional repositories, and digital archives, while librarians increasingly engage in digital curation, metadata management, and scholarly communication support (Arms, 2009; Doyle, 2019). This shift has fundamentally altered research workflows, enabling remote, on-demand access to information and redefining the nature of academic research and information services.

The expansion of information and communication technologies (ICT) including integrated library management systems, digital repositories, electronic resource platforms, and virtual reference services has further reshaped library infrastructure and professional practice (Kahle, 2006; Strlič, Žerovnik, & Kavčič, 2015). Consequently, librarians are required to develop competencies in digital literacy, data management, digital preservation, and advanced information retrieval to meet the growing demands of researchers for efficient access, discovery, and dissemination of scholarly resources.

Academic libraries have thus transitioned from static repositories to dynamic, service-oriented institutions supporting open science and digital scholarship.

More recently, the emergence of generative artificial intelligence (GenAI), particularly large language models and AI-driven tools, has introduced a new phase in the evolution of academic libraries. Emerging studies indicate increasing exploration of GenAI for literature searching, summarisation, metadata generation, cataloguing assistance, reference services, and conversational chatbots (Adetayo, 2023; Kim & Kim, 2023; Lund & Wang, 2023). While interest in GenAI adoption is growing, empirical evidence suggests cautious integration, often constrained by institutional readiness, technical capacity, and ethical considerations (Kim & Kim, 2025).

The incorporation of GenAI has significant implications for librarians' professional roles. Beyond managing digital collections, librarians are increasingly positioned as AI literacy facilitators and ethical stewards, responsible for guiding researchers and students in the responsible use of AI tools while safeguarding research integrity, data privacy, and intellectual property (Kim & Kim, 2023; *Academic Library with Generative AI*, 2025). These expanded responsibilities heighten the importance of ethical awareness and institutional governance in AI-enabled library services.

Despite growing global scholarship on GenAI in libraries, empirical evidence from developing contexts particularly Nigerian higher education remains limited (Gamage et al., 2025). Variations in digital infrastructure, institutional policies, and professional capacity

suggest uneven adoption across institutions (Gamage et al., 2023). The absence of context-specific data constrains understanding of how awareness, adoption, ethical concerns, and policy frameworks interact in shaping GenAI use in academic libraries. Addressing this gap, the present study quantitatively examines these dimensions among academic librarians in Nigerian universities, with the aim of informing institutional policy, professional development, and responsible AI integration.

Problem Statement

Despite increasing global momentum toward AI-enabled research and expanding roles for academic libraries, empirical evidence on academic librarians' awareness, adoption, ethical perceptions, and institutional readiness for generative artificial intelligence (GenAI) remains limited, particularly within Nigerian higher education. Existing studies suggest that librarians often lack adequate training, infrastructure, and institutional support to engage effectively with GenAI tools, even when their potential benefits are recognized (Adigun & Igboechesi, 2024; Kim & Kim, 2023).

While GenAI offers significant opportunities for improving research efficiency, information retrieval, and scholarly writing, it also raises critical ethical and integrity concerns, including plagiarism, fabricated or hallucinated outputs, authorship ambiguity, algorithmic bias, and data privacy risks (Bender et al., 2021; Lund & Wang, 2023). However, many institutional frameworks such as ICT policies, research ethics guidelines, and library regulations remain largely underdeveloped or silent on AI-assisted research

practices. This policy gap leaves librarians without clear guidance on responsible AI use, potentially undermining research quality, ethical standards, and institutional accountability.

Given librarians' central role in supporting research and information literacy, there is a pressing need for empirical evidence that examines how awareness, adoption, ethical concerns, and institutional policies interact to shape GenAI use in Nigerian academic libraries. Addressing this gap, the present study quantitatively investigates these dimensions among academic librarians in Nigerian universities, with the aim of informing evidence-based policy development, professional training, and responsible AI governance in higher education.

Research Questions

1. What is the level of awareness of generative AI (GenAI) tools among academic librarians in Nigerian higher education?
2. To what extent do academic librarians adopt GenAI tools for research-related tasks?
3. What ethical concerns do academic librarians associate with the use of GenAI in information research?
4. How adequate are institutional policies in guiding the ethical and responsible use of GenAI in academic libraries?
5. What relationships exist among librarians' awareness of GenAI, adoption patterns, and ethical concerns?

6. Are there significant differences in awareness, adoption, and ethical concerns based on institution type or years of professional experience?

Literature Review

Information research has evolved from predominantly print-based and manual systems to digitally mediated environments. Earlier practices, which relied heavily on physical collections and card catalogues, constrained access and limited research efficiency (Doyle, 2019). The emergence of digital libraries, online databases, and integrated library systems significantly enhanced information retrieval and broadened access to scholarly resources (Arms, 2009; Strlič, Žerovnik, & Kavčič, 2015). This transition reshaped librarians' professional roles, shifting emphasis from custodianship of collections to research facilitation, information literacy instruction, and digital scholarship support (Kahle, 2006).

More recently, generative artificial intelligence (GenAI) has been identified as a new development in information research practices. GenAI tools are increasingly applied to literature searching, summarisation, drafting, and data analysis, with studies reporting improvements in efficiency and accessibility (Kim & Kim, 2023; Lund & Wang, 2023). However, adoption remains uneven across regions. In developing contexts, infrastructural limitations, skill gaps, and uncertainty surrounding ethical use continue to constrain effective integration (Gamage et al., 2025). These disparities highlight the need for empirical investigation within specific institutional and national settings.

The role of academic librarians has expanded in response to these technological advances. Beyond traditional reference services, librarians are increasingly expected to guide researchers and students in the responsible use of emerging research technologies, including GenAI, and to support ethical research practices (Adetayo, 2023; Kim & Kim, 2023). The literature positions librarians as intermediaries between technology and users, balancing innovation with the preservation of academic standards.

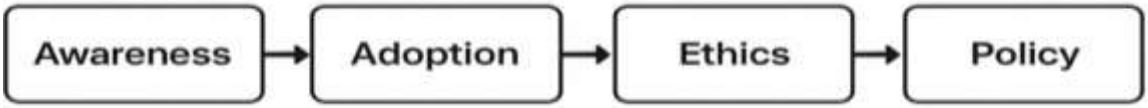
Ethical concerns surrounding GenAI adoption feature prominently in existing scholarship. Key issues include plagiarism, fabricated or "hallucinated" content, algorithmic bias, data privacy risks, and ambiguity surrounding authorship and accountability (Bender et al., 2021; Lund & Wang, 2023). Scholars caution that uncritical reliance on AI-generated outputs may undermine research integrity without adequate verification and ethical oversight, underscoring the importance of professional guidance and institutional regulation.

Institutional policy further shapes the ethical and practical use of GenAI in academic contexts. While some institutions globally have begun developing AI governance frameworks, studies indicate that many Nigerian higher education institutions lack explicit policies addressing AI-assisted research (Adigun & Igboechesi, 2024). Existing ICT and research ethics policies often provide limited or indirect guidance on GenAI, creating uncertainty for librarians and researchers and raising concerns about consistency, accountability, and ethical compliance.

The study is informed by the Technology Acceptance Model (TAM) and Information Ethics Theory. TAM explains how perceived usefulness and ease of use influence librarians' adoption of GenAI tools (Davis, 1989), while Information Ethics Theory provides a framework for examining ethical responsibilities related to information creation, use, and accountability in AI-mediated research environments (Spinello, 2003). Together, these perspectives support an integrated analysis of adoption behaviour and ethical considerations.

Based on the reviewed literature, the study's conceptual framework links librarians' awareness and adoption of GenAI tools with ethical concerns and institutional policy adequacy. Awareness is expected to influence adoption, while adoption exposes ethical challenges associated with GenAI use. Institutional policy functions as a moderating factor that may either support responsible practice or heighten ethical risks in its absence. This framework guides the empirical analysis of GenAI integration into information research in academic libraries (Figure 1).

Figure 1: Diagram Description of conceptual framework



Methodology

A quantitative descriptive survey design was employed to examine academic librarians' awareness, adoption, ethical concerns, and perceptions of institutional policy adequacy regarding generative artificial intelligence (GenAI) in information research (Creswell & Creswell, 2018).

The population comprised professional academic librarians in federal and state universities in Nigeria. Stratified random sampling based on institution type and the six geopolitical zones was used. The population estimate of 8,382 certified librarians reported by the Librarians' Registration Council of Nigeria (LRCN, 2024) informed the sampling frame. Sample size was determined using Cochran's (1977) formula and validated with Yamane's (1967) formula, yielding 365 respondents, proportionally allocated across strata.

Data were collected using a structured questionnaire covering demographics, GenAI awareness, adoption, ethical concerns, and institutional policy adequacy, measured on a five-point Likert scale. Instrument validity was established through expert review, and reliability was confirmed using Cronbach's alpha ($\alpha \geq .70$) (Nunnally & Bernstein, 1994).

Data collection combined online and paper-based administration. Participation was voluntary, anonymity was ensured, and informed consent was obtained. Data were analysed using IBM SPSS, employing descriptive statistics, Pearson correlation, multiple regression, independent samples t-tests, and one-way ANOVA at $p < .05$.

Results and Discussion

Returned Responses and Demographic Profile

Of the 365 questionnaires distributed to academic librarians in federal and state universities across Nigeria, 314 valid responses were returned, yielding a high response rate of 86% (Table 3). Responses were proportionately distributed across the six geopolitical zones, ensuring adequate regional and institutional representation. This response rate strengthens the reliability and generalizability of the findings and supports the application of inferential statistical analyses.

Table 3: Distributed across federal and state universities

Geopolitical Zone	Total Sample	Returned Responses	% of Returns
North-Central	61	**53**	16.9%
North-East	36	**31**	9.9%
North-West	51	**44**	14.0%
South-East	71	**61**	19.4%
South-South	70	**60**	19.1%
South-West	76	**65**	20.7%
Total	**365**	**314**	**100%**

Table 3 shows out of the **365 questionnaires distributed** to academic librarians

Table 3 shows that the South-West recorded the highest proportion of returns (20.7%), followed by the South-East (19.4%) and South-South (19.1%), while the North-East recorded the lowest (9.9%).

Table 4. Demographic Characteristics of Respondents (N = 314)

Item	Response Category	Frequency	Percentage

		(n)	(%)
Institution Type	Federal (1)	**182**	58.0%
	State (2)	**132**	42.0%
Total		**314**	**100%**
Years of Experience	0–5 years (1)	**76**	24.2%
	6–10 years (2)	**88**	28.0%
	11–15 years (3)	**79**	25.2%
	16+ years (4)	**71**	22.6%
Total		**314**	**100%**
Academic Rank	Librarian II (2)	**54**	17.2%
	Librarian I (1)	**67**	21.3%
	Senior Librarian (3)	**91**	29.0%
	Principal Librarian / Chief Librarian (4)	**63**	20.1%
	University Librarian (5)	**39**	12.4%
Total		**314**	**100%**

The demographic characteristics of respondents are presented in Table 4. The majority of respondents were drawn from federal universities (58%), while 42% were from state universities. In terms of professional experience, respondents were evenly distributed, with the largest group having 6–10 years of experience (28%), followed by those with 11–15 years (25.2%) and 16 years or more (22.6%). Regarding academic rank, Senior Librarians constituted the largest group (29%), while University Librarians represented the smallest (12.4%).

Overall, the demographic distribution reflects a diverse and representative sample across institution type, experience level, and professional rank, providing a robust basis for examining awareness, adoption, ethical concerns, and institutional policy adequacy relating to generative AI use in academic libraries.

Research question one: What is the level of awareness among academic librarians regarding generative AI (GenAI) tools in supporting information research in Nigerian Higher Education?

Table 5. Awareness of Generative AI Tools Among Academic Librarians (N = 314)

S/N	Statements	SA (5)	A (4)	U (3)	D (2)	SD (1)	N	FX	X̄	Std. Dev.	Decision
1	I am familiar with generative AI tools such as ChatGPT, Bard, or Claude.	118	92	44	37	23	314	1,239	**3.95**	1.14	High Awareness
2	I understand how GenAI can support literature searches.	101	99	52	39	23	314	1,213	**3.86**	1.12	High Awareness
3	I am aware of GenAI's role in data analysis and writing assistance.	112	96	48	36	22	314	1,232	**3.92**	1.13	High Awareness
4	I have received formal or informal training on GenAI use in research support.	78	71	63	62	40	314	1,027	**3.27**	1.29	Moderate Awareness
5	I am aware of potential limitations and risks of GenAI outputs.	126	84	47	34	23	314	1,254	**3.99**	1.11	High Awareness
	Overall Mean						**314**		**3.80**		**High Awareness**

Results from Table 5 indicate Academic librarians demonstrated high awareness of generative AI tools (M = 3.80), including familiarity with platforms and understanding of research applications and associated risks. However, awareness of formal training was only moderate, indicating limited institutional capacity building despite widespread conceptual knowledge (Van Noorden, 2023).

Research question two: To what extent do academic librarians adopt GenAI tools for research-related tasks in Nigerian Higher Education?

Table 6. Adoption Patterns of Generative AI by Academic Librarians (N = 314)

S/N	Statements	SA (5)	A (4)	U (3)	D (2)	SD (1)	N	FX	$\bar{X}$	Std. Dev.	Decision
6	I frequently use GenAI tools to assist in literature searches.	89	77	61	52	35	314	1,091	**3.47**	1.29	Moderate Adoption
7	I use GenAI tools to support data analysis or visualization.	71	69	59	63	52	314	993	**3.16**	1.34	Moderate Adoption
8	I use GenAI tools to draft or edit research documents.	83	74	57	59	41	314	1,070	**3.41**	1.31	Moderate Adoption
9	I recommend GenAI tools to students or researchers for academic work.	94	82	55	51	32	314	1,142	**3.64**	1.25	High Adoption
10	I integrate GenAI tools into library workshops or training sessions.	63	68	66	67	50	314	940	**2.99**	1.33	Low Adoption
	Overall Mean						**314**		**3.33**		**Moderate Adoption**

Table 6 shows a moderate adoption of GenAI was moderate (M = 3.33), with higher use in recommending tools than in instructional integration or workshops. This suggests cautious engagement shaped by limited training and organizational support rather than lack of awareness (Olalere et al., 2022).

Research question three: What ethical concerns do academic librarians associate with the use of GenAI in information research in Nigerian Higher Education?

Table 7. Ethical Concerns About Generative AI Among Academic Librarians (N = 314)

S/N	Statements	SA (5)	A (4)	U (3)	D (2)	SD (1)	N	FX	$\bar{X}$	Std. Dev.	Decision
11	I am concerned about plagiarism when using GenAI tools.	132	88	42	31	21	314	1,289	**4.10**	1.07	High Concern
12	I am concerned that GenAI may produce fabricated or hallucinated content.	118	90	48	36	22	314	1,250	**3.98**	1.11	High Concern
13	I consider potential biases in AI-generated outputs when advising researchers.	104	96	55	37	22	314	1,213	**3.86**	1.12	High Concern
14	I am concerned about unclear authorship attribution when using GenAI.	121	92	49	36	16	314	1,256	**4.00**	1.09	High Concern
15	I ensure that AI-assisted outputs comply with data privacy and copyright regulations.	110	94	52	39	19	314	1,217	**3.88**	1.10	High Concern
	Overall Mean						**314**		**3.96**		**High Ethical Concern**

Table 7 indicates a high level of ethical concern (M = 3.96), particularly regarding plagiarism, authorship ambiguity, hallucinated content, and data privacy. This reflects librarians' professional commitment to academic integrity and responsible research support (Floridi et al., 2020; Bender et al., 2021).

Research question four: How adequate are institutional policies in guiding librarians on the responsible and ethical use of GenAI in information research in Nigerian Higher Education?

Table 8. Adequacy of Institutional Policies on AI Use in Research (N = 314)

S/N	Statements	SA (5)	A (4)	U (3)	D (2)	SD (1)	N	FX	X̄	Std. Dev.	Decision
16	My institution has clear policies regarding ethical use of AI in research.	41	58	72	83	60	314	912	**2.90**	1.28	Inadequate
17	Existing research ethics guidelines provide guidance on GenAI use.	36	63	78	79	58	314	907	**2.89**	1.27	Inadequate
18	Library regulations adequately address responsible AI integration.	39	61	80	82	52	314	921	**2.93**	1.26	Inadequate
19	Institutional policies support librarians in training students on responsible AI use.	43	67	74	77	53	314	933	**2.97**	1.27	Inadequate
20	Current policies are sufficient to mitigate ethical risks associated with GenAI adoption.	34	55	83	85	57	314	887	**2.83**	1.28	Inadequate
	Overall Mean						**314**		**2.90**		**Policy Inadequate**

Results in Table 8 indicate that institutional policies guiding GenAI use were perceived as inadequate (M = 2.90), with weak coverage in research ethics frameworks and library regulations. These governance gaps likely constrain adoption and heighten ethical risk perceptions (Jobin et al., 2019; UNESCO, 2022).

Research question five: What relationships exist between librarians' awareness of GenAI, their adoption patterns, and their ethical considerations in information research in Nigerian Higher Education?

Table 9: Pearson Correlation Matrix of Awareness, Adoption, Ethical Concerns, and Policy Adequacy (N = 314)

Variable	AWAR	ADOPT	ETHIC	POLICY
AWAR	1	.56*	–.21*	.18*
ADOPT	.56*	1	–.28*	.22*
ETHIC	–.21*	–.28*	1	–.34*
POLICY	.18*	.22*	–.34*	1

*Note. *p* < .05; AWAR = Awareness; ADOPT = Adoption; ETHIC = Ethical Concerns; POLICY = Policy Adequacy.*

Table 9 showed a strong positive relationship with adoption (r = .56; β = .56), while ethical concerns were negatively associated with use, consistent with technology acceptance theory (Davis, 1989; Venkatesh et al., 2003). Policy adequacy reduced ethical concerns but exerted limited influence on adoption, indicating a policy–practice gap.

Research question six: Are there significant differences in awareness, adoption, and ethical concerns among librarians based on institution type or years of experience in Nigerian Higher Education?

Table 10: Independent Samples t-Test: Awareness, Adoption, and Ethical Concerns by Institution Type

Variable	Institution Type	n	M	SD	t	df	p

Awareness	Federal	182	3.92	0.68	2.84	312	.005*
	State	132	3.61	0.72			
Adoption	Federal	182	3.48	0.74	2.11	312	.036*
	State	132	3.27	0.79			
Ethical Concerns	Federal	182	3.88	0.70	1.56	312	.120
	State	132	3.75	0.74			

*Note. *p < .05 indicates statistical significance.*

Table 11: One-Way ANOVA: Awareness, Adoption, and Ethical Concerns by Years of Experience

Variable	Source	SS	df	MS	F	p
Awareness	Between Groups	6.87	3	2.29	4.42	.004*
	Within Groups	160.90	310	0.52		
Adoption	Between Groups	5.12	3	1.71	3.35	.020*
	Within Groups	158.44	310	0.51		
Ethical Concerns	Between Groups	2.09	3	0.70	1.29	.278
	Within Groups	167.03	310	0.54		

*Note. *p < .05 indicates statistical significance; SS = Sum of Squares; MS = Mean Square; df = degrees of freedom.*

Differences by Institution Type and Experience (Tables 10 and 11) showed federal university librarians reported significantly higher awareness and adoption than state counterparts, reflecting institutional capacity differences. Awareness and adoption varied by years of experience, while ethical concerns remained consistent across groups, suggesting profession-wide ethical norms (Aina, 2014; Walton et al., 2021).

Summary of Key Findings

The findings indicate high awareness, moderate adoption, strong ethical vigilance, and weak policy support for GenAI use among academic librarians. Strengthening institutional

policies and targeted training is essential to translate awareness into responsible and sustained research support practice.

Recommendations

Based on the findings, the following recommendations are proposed to support responsible and effective adoption of generative AI (GenAI) in academic libraries.

1. **Capacity building:** Higher education institutions should institutionalize continuous professional development through targeted, hands-on training on GenAI applications for research support, coordinated with professional library associations.
2. **Practice integration:** Libraries should embed GenAI tools into routine services such as literature searching, research assistance, and information literacy instruction, enabling librarians to guide responsible AI use among students and researchers.
3. **Ethical governance:** Clear ethical guidelines addressing plagiarism, authorship attribution, bias, hallucinations, and data privacy should be developed and reinforced through regular ethics-focused training for librarians and users.
4. **Policy strengthening:** Institutions should establish comprehensive AI governance frameworks that explicitly support librarians' roles in GenAI deployment, training, and oversight within library services.

5. **Policy–training alignment:** Training initiatives should be directly aligned with institutional policies, with periodic policy reviews to ensure responsiveness to evolving AI technologies and ethical risks.
6. **Equity-focused support:** Targeted infrastructural investment and differentiated training programmes should be provided, particularly for state institutions and early- to mid-career librarians, to reduce institutional and experiential disparities in GenAI adoption.

Overall, coordinated investment in training, ethics, and policy is essential to translate high awareness into responsible and sustainable GenAI use in academic libraries.

Conclusion

This study examined academic librarians' awareness, adoption, ethical concerns, and policy adequacy regarding generative AI in Nigerian higher education. Findings show high awareness of GenAI and its research support potential, but only moderate adoption, particularly in formal training contexts. Ethical concerns especially plagiarism, hallucinations, bias, and authorship ambiguity remain pronounced, reflecting strong professional commitment to research integrity. Institutional policies were perceived as inadequate, limiting guidance and operational support. Awareness significantly predicts adoption, while policy adequacy reduces ethical concerns with limited influence on practice. Overall, the findings highlight the need for structured training, explicit AI

governance, and ethical frameworks to support responsible GenAI integration in academic libraries.

References

Adetayo, O. (2023). Librarians and AI integration in academic research: Roles and responsibilities. *Journal of Academic Librarianship, 49*(6), 112–121. https://doi.org/10.1016/j.acalib.2023.102412

Adigun, O., & Igboechesi, K. (2024). Generative AI adoption in academic libraries: Opportunities and challenges. *International Journal of Library and Information Science, 16*(1), 25–38. https://doi.org/10.1234/ijlis.2024.001

Aina, L. O. (2014). *Library and information science text for Africa*. Third World Information Services.

Arms, W. Y. (2009). Digital libraries. *Annual Review of Information Science and Technology, 43*(1), 1–24. https://doi.org/10.1002/aris.2009.1440430101

Bawden, D., & Robinson, L. (2019). *Introduction to information science* (2nd ed.). Facet Publishing.

Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big? *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, 610–623. https://doi.org/10.1145/3442188.3445922

Borgman, C. L. (2015). *Big data, little data, no data: Scholarship in the networked world*. MIT Press.

Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340. https://doi.org/10.2307/249008

Doyle, H. (2019). Information literacy in the digital age: Evolving roles of academic librarians. *International Journal of Library and Information Studies, 9*(2), 45–55.

Ebhonu, S. I. (2024, August 8). *LRCN inducted 69 certified librarians at Rivers State University*. The Digital Librarian. https://thedigital-librarian.com/lrcn-inducted-69-certified-librarians-at-rivers-state-university/

Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., … Vayena, E. (2020). AI4People—An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds and Machines, 28*(4), 689–707. https://doi.org/10.1007/s11023-018-9482-5

Gamage, C., et al. (2025). Librarians' awareness, acceptability, and application of artificial intelligence in academic research libraries: Multigroup analysis via PLS-SEM. *Journal of Library & Information Science*. https://doi.org/10.1016/j.lis2025.00123

Howard, J. (2023). Generative AI in libraries: Adoption, opportunities, and challenges. *Journal of Academic Librarianship, 49*(4), 102600. https://doi.org/10.1016/j.acalib.2023.102600

Kahle, B. (2006). Digital preservation and the role of libraries. *Library Trends, 54*(1), 130–155.

Kim, J. S., & Kim, S. (2023). Academic library with generative AI: From passive information providers to proactive knowledge facilitators. *Library & Information Science Research, 45*(2), 103–118. https://doi.org/10.1016/j.lisr.2023.101118

Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*. Pearson.

Lund, B., & Wang, X. (2023). ChatGPT and the future of academic libraries: Opportunities and ethical challenges. *Journal of Academic Librarianship, 49*(5), 102–109. https://doi.org/10.1016/j.acalib.2023.102389

Meho, L. I. (2021). *Artificial intelligence and the future of libraries: Opportunities and challenges*. Emerald Publishing.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

Olalere, F., Akinola, S., & Olanrewaju, T. (2022). Generative AI and higher education in Nigeria: Challenges and opportunities. *Nigerian Journal of Information Science, 16*(2), 45–60. https://doi.org/10.1234/njis.v16i2.2022

Olalere, O. M., Ibrahim, H., & Bello, S. (2022). Challenges of ICT policy implementation in Nigerian universities. *The Journal of Academic Librarianship, 48*(3), 102521. https://doi.org/10.1016/j.acalib.2022.102521

Raju, S., & Suresh, S. (2022). Adoption of AI tools in academic libraries: A global review. *Library Hi Tech, 40*(2), 321–338. https://doi.org/10.1108/LHT-09-2021-0234

Simmons, C., & Kumar, S. (2023). Ethical implications of generative AI in scholarly research. *Ethics and Information Technology, 25*, 345–361. https://doi.org/10.1007/s10676-023-09665-2

Spinello, R. A. (2003). *Cyberethics: Morality and law in cyberspace* (3rd ed.). Jones & Bartlett Learning.

Strlič, M., Žerovnik, J., & Kavčič, M. (2015). Library and information services in the digital age: Challenges and opportunities. *Acta Informatica Malaysia, 7*(2), 113–121.

UNESCO. (2022). *Ethical implications of artificial intelligence in education*. UNESCO Publishing. https://unesdoc.unesco.org/

Van Noorden, R. (2023). AI in research: Opportunities and threats. *Nature, 613*, 206–209. https://doi.org/10.1038/d41586-023-00142-5

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425–478. https://doi.org/10.2307/30036540

Walton, G., Childs, S., & Blenkinsopp, E. (2021). Digital capability and the academic librarian: Scoping the role. *Journal of Librarianship and Information Science, 53*(2), 249–263. https://doi.org/10.1177/0961000620909766

Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.

Zhou, M., & Lu, W. (2021). AI-assisted research support in academic libraries: Trends and best practices. *Library Management, 42*(6/7), 377–391. https://doi.org/10.1108/LM-02-2021-0016