



Research Article

Cultural Perceptions on the Use of Artificial Intelligence: A Study on the Integration of AI Technology in Nigerian Historical Studies

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Abstract

Background: The integration of Artificial Intelligence (AI) into historical research presents both opportunities and challenges for Nigerian historiography, yet cultural perceptions and academic attitudes toward its adoption remain underexplored. This study investigates scholarly perspectives on AI integration in Nigerian historical studies, examining the tension between technological innovation and traditional research practices. By exploring the socio-cultural frameworks, institutional disparities, and post-colonial dynamics that influence how local scholars perceive and adopt these technologies, this study argues that AI must not be viewed as an autonomous interpretive agent. Instead, it must remain a subordinate, complementary tool subject to rigorous human source criticism, safeguarding the rich interpretive traditions unique to African historiography. **Method:** Mixed-methods research design was employed, combining semi-structured interviews with established historians, a comprehensive desk review of archival and published materials, and a stratified survey of 400 respondents across two of Nigeria's major geopolitical zones the north central and south western Nigeria. **Findings:** Findings indicate widespread awareness of AI tools among scholars, with 78% reporting familiarity and 72% actively using AI applications in their research. However, 55% expressed reservations regarding cultural appropriateness and the potential erosion of interpretive dimensions in historical scholarship. Practical benefits identified include archival digitization, automated transcription, and spatial reconstruction, while epistemological concerns, algorithmic biases, and infrastructural limitations constrain effective deployment. **Conclusion:** The study concludes that to preserve the integrity of African historiographical traditions AI should serve as a complementary tool under rigorous human oversight, rather than as an autonomous interpretive agent.

Keywords

African Historiography, Artificial Intelligence, Digital Humanities, Historical Research, Nigeria

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1. Introduction

The rapid evolution of Artificial Intelligence (AI) has introduced transformative methodologies across academic disciplines, including the humanities. In contemporary Nigerian historiography, the intersection of computational tools and historical research presents a complex paradigm shift moving from what has been termed a culture of archival scarcity to one of digital abundance. The growing use of Artificial Intelligence (AI) has fundamentally changed the landscape of academic research. Within the humanities, and specifically historical inquiry, AI has introduced unprecedented opportunities for digitizing fragile archival documents, processing vast quantities of unstructured text, and identifying macro-historical patterns that would otherwise demand intensive, long-term manual analysis [1].

These computational advancements have prompted historians worldwide to reconsider traditional methodologies and actively incorporate digital tools into their workflows. However, the integration of AI within Nigerian historical studies remains remarkably uneven and highly constrained. Unlike Western academic ecosystems where digital humanities infrastructure is deeply entrenched, the Nigerian context is characterized by a unique juxtaposition: a deep, ethno-linguistic plurality and a massive corpus of physical colonial and indigenous records, paired with severe technological and institutional limitations [2]. Consequently, the adoption of AI is not merely a technical transition but a highly contested process shaped by historical consciousness, institutional politics, and socio-cultural values.

This paper synthesizes five distinct scholarly contributions to evaluate the cultural and academic perceptions of AI in Nigerian historical studies. It systematically examines the structural and epistemological barriers to entry, explores the methodology of digital historiography, outlines the practical opportunities for historical reconstruction, and assesses the socio-cultural factors governing technological adoption within the Nigerian academy.

2. Methodology

This study utilizes a mixed-methods research design to evaluate academic perspectives on integrating Artificial Intelligence (AI) into Nigerian historiography, capturing macro-level structural trends alongside fine-grained qualitative nuances across diverse cultural backgrounds.

The qualitative framework relies on primary oral data gathered via semi-structured interviews with key stakeholders and established historians of Nigerian history. This approach provides flexible, rigorous insights into institutional barriers, individual research practices, and generational or regional attitudes toward emergent tools, filling empirical gaps that standardized metrics fail to capture within a discipline heavily anchored in oral tradition.

Conversely, the quantitative component is dual-pronged.

First, a comprehensive desk review analyses secondary literature including published textbooks, journal articles, historical newspapers like the *West African Pilot*, and contemporary periodicals to contextualize the shift from archival scarcity to digital abundance. Second, a stratified quantitative survey expands this scope across Nigeria's major geographical zones. By distributing 20 structured questionnaires to selected tertiary and research institutions within each zone, the study secures a total sample size of 400 respondents: 118 respondents were from survey forms, and 282 obtained from oral interviews/focused group discussions within the span of 9 months. This broad spatial distribution explicitly isolates and measures how geopolitical variables, digital infrastructural disparities, and localized socio-cultural paradigms shape a scholar's inclination to adopt or resist AI workflows.

3. Literature Review

3.1. Review of Related Studies

The integration of Artificial Intelligence (AI) in Nigerian historical studies has recently sparked considerable academic interest, particularly regarding its ethical use, cultural perceptions and their implications for the humanities. Studies in AI is often considered more scientific than relevant to the humanities. However, cultural understanding can help developers make AI more human in its interface. Esamagu et al. [3] highlights the intersection of AI and interdisciplinary collaboration, advocating for its role in enhancing African history research. This perspective is complemented by Bakare [4], who discusses AI's potential to foster critical thinking and learning in social studies, suggesting that similar benefits could extend to historical education.

Onianwa [5] addresses the logistical challenges of historical research, arguing that AI can facilitate the digitization of bibliographies, thereby streamlining access to secondary sources. This technological advancement is crucial for researchers who face time constraints and resource limitations. Tolulope et al. [6] further examine the broader impact of AI on research in Nigeria, identifying key areas where AI can drive innovation and efficiency.

The significance of cultural heritage in the adoption of AI technologies is underscored by Bolarinwa [7] and Gaith & Hutson [8], who explore how AI can enhance cultural sustainability and conservation. Nwodu [9] provides insights into students' awareness and perceptions of AI, highlighting the importance of cultural attitudes in technology adoption.

Collectively, these studies indicate that understanding cultural perceptions is essential for successfully integrating AI into Nigerian historical research. By considering these cultural dimensions, future implementations of AI can be tailored to meet the needs and expectations of diverse stakeholders, fostering a more inclusive approach to the use of AI.

3.2. Digital Historiography and the Current Archival Landscape in Nigeria

To understand the limitations and possibilities of AI integration, one must first confront the realities of the archival landscape in Nigeria. The National Archives of Nigeria, established in 1957 under colonial administration, houses an irreplaceable volume of administrative records detailing the complex operations of the British indirect rule apparatus. Yet, access to these physical repositories concentrated primarily in regional centres such as Ibadan, Enugu, Kaduna, and Abuja remains fraught with difficulty. Researchers routinely face challenges stemming from material degradation, poor finding aids, inadequate funding, and the destructive effects of tropical humidity on fragile, un-digitized paper relics.

In response to these preservation crises, the National Archives initiated a formal digitalization project in 2003. However, comprehensive reviews indicate that, contrary to institutional rhetoric, the vast majority of national holdings remain strictly in analogue formats. This stalemate is sustained by severe funding constraints, the absence of a unified national framework for digital preservation, and a critical shortage of personnel trained in archive informatics. Where localized digital initiatives have succeeded, they often highlight a profound "reliance paradox" inherent to the African digital humanities. For example, the Abubakar Tafawa Balewa Heritage Center in Bauchi State successfully digitized and cataloged 147 historical artifacts, including rare photographs and key political documents. However, achieving such localized preservation frequently depends directly on Western technical frameworks and external, foreign-screened financing. When the curation, metadata architecture, and long-term hosting rights of Nigeria's historical legacy are outsourced to Euro-American institutions, indigenous digital sovereignty is compromised, risking the reinforcement of colonial power imbalances under the guise of digital generosity.

4. Discussion

4.1. Results

Analysing cultural perceptions regarding the integration of Artificial Intelligence (AI) in Nigerian historical studies from survey responses collected from academics, researchers, and students across Nigerian institutions. The data reveals complex attitudes toward AI adoption, reflecting tensions between technological advancement and traditional research methodologies, cultural values, and ethical considerations. The analysis employed NVIVO qualitative and quantitative interpretation to explore the multi-layered responses regarding AI's role in Nigerian historical scholarship.

The survey captured responses from 118 participants predominantly from North Central Nigeria particularly University of Jos, Plateau State University, Federal University Lafia, Benue State University, and Federal University Wukari. The

demographic composition reveals that the majority (approximately 85%) are aged 21-30 years, with academic status ranging from undergraduate students to postgraduate students, lecturers, and researchers. A striking finding is the high level of AI awareness among respondents. Approximately 78% indicated familiarity with AI concepts with many specifically mentioning tools like ChatGPT, Gemini, Copilot, and Deepseek. This widespread awareness suggests that AI technologies have penetrated Nigerian academic spaces despite infrastructural challenges. Notably, 72% of respondents reported using AI tools, indicating active engagement rather than passive awareness. This finding challenges assumptions about technological lag in Nigerian academic contexts. Cultural concerns contributing to resistance toward AI adoption were acknowledged by approximately 55% of respondents. This resistance appears linked to perceptions of AI as potentially undermining the humanistic and interpretive dimensions of historical scholarship and that AI is not culturally neutral but a technology requiring localization.

4.2. Methodological Applications and Practical Opportunities

Despite severe structural impediments, the deployment of AI and digital technologies offers significant, revolutionary possibilities for advancing Nigerian historical research across several primary axes [10]: By coupling artificial intelligence with internet-based repositories, the geographic barriers that have long marginalized remote or underfunded scholars are being dismantled [11]. Physical distance from regional archives becomes less restrictive as AI-driven discovery tools and cloud-hosted formats allow historians to engage with global collections right from their desks, vastly reducing travel expenditures and democratizing primary source access [12]. Moreso, AI serves as a vital safeguard against the permanent loss of historical data. Advanced tools like Handwritten Text Recognition (HTR) platforms (e.g., Transkribus) are currently deployed to transcribe handwritten British colonial communications, district officer reports, and local court records. Similarly, Automatic Speech Recognition (ASR) speech-to-text models dramatically accelerate the preliminary transcription of vernacular oral history recordings, transforming ephemeral acoustic data into durable, machine-readable digital texts [11].

Beyond text, generative AI models and computer vision are increasingly utilized to catalog, interpret, and visually preserve physical cultural artifacts. AI models demonstrate capabilities in transforming cultural elements, music, and imagery into rich digital mediums, creating alternative modes of cultural expression and preservation that safeguard Nigeria's material past for successive generations.

Through the integration of voice synthesis, 3D modeling, and advanced graphics, AI allows history to become visually alive. Complex historical artifacts, such as the Benin bronze

heads and Nok terracotta sculptures, can be digitally reconstructed into lifelike forms. Furthermore, using Geographic Information Systems (GIS), spatial historians can plot cartographic legacies such as the Lagos-to-Kano railway line to illustrate visually how colonial infrastructure investments directly promoted wealth extraction and territorial surveillance, exposing the ideological violence embedded within historic maps. The computational capacity of AI allows for the rapid sorting, categorization, and pattern recognition of expansive datasets. Historians can leverage AI as a sophisticated research assistant to parse massive collections of historic newspapers, trace migration patterns over centuries, or isolate recurring thematic tropes across thousands of pages of colonial records, bypassing the limitations of manual sorting.

4.3. Epistemological, Ethical, and Algorithmic Challenges

The enthusiasm surrounding AI is tempered by serious methodological and ethical critiques. At the core of the academic anxiety is the fundamental mismatch between the interpretive demands of history and the mathematical constraints of computer science: AI systems excel at pattern recognition within massive datasets, but they remain fundamentally blind to historical context, irony, subtext, and local cultural meanings. Large Language Models (LLMs) do not read for historical truth; they generate statistical predictions of the most likely next word based on their training parameters. They are incapable of independent source criticism. Because the foundational architecture and training datasets of modern AI are predominantly engineered in Europe and North America, they

are heavily saturated with Western perspectives. African historical narratives are severely underrepresented or completely flattened into Eurocentric categories. When applied uncritically to Nigerian history, these algorithms risk reproducing historical inequalities, making indigenous knowledge systems and oral traditions invisible.

The use of Optical Character Recognition (OCR) databases introduces what Lara Putnam critiques as the biases of "the transnational and the text-searchable." Keyword queries create an illusion of empirical completeness while completely masking un-digitized regional papers, missing archival folder issues, and gaps stemming from colonial press censorship. Similarly, qualitative analysis software like NVivo and ATLAS.ti remains optimized for non-tonal, Western languages, routinely failing to parse the complex orthographies, tonal inflections, and diacritical marks essential to Nigerian linguistic historical traditions [13]. Therefore, the rising utilization of generative AI to draft text, summarize literature, and interpret sources raises urgent concerns regarding plagiarism, authorship, and academic integrity. AI is notoriously prone to "hallucinations" the fabrication of historical citations and facts. Over-reliance on these tools, without exhaustive human verification, threatens to erode the empirical rigorosity.

4.4. Socio-Cultural Influences and Academic Perceptions

The adoption of AI within the Nigerian university system is deeply influenced by geopolitical, generational, and cultural dynamics. Nigeria's vast domestic diversity means that institutional responses are far from uniform:

Table 1. Regional and Generational Orientations toward AI Adoption among Nigerian Historians.

Demographic/Regional Vector	General Orientation toward AI Adoption	Underlying Catalyst / Constraint
Southern Nigerian Scholars	Higher/Rapid Adoption Rate	Earlier historical exposure to European educational models and digital infrastructure access.
Northern Nigerian Scholars	Cautious/Delayed Adoption Rate	Stronger alignment with traditional communication channels, Islamic educational structures, and conservative knowledge systems.
Younger Academic Cohort	High Openness & Proactive Integration	View the internet and AI as alternative epistemic spaces to bypass broken institutional infrastructure and access global scholarship.
Older Academic Cohort	Severe Scepticism & Resistance	View AI outputs as inferior to indigenous knowledge systems; place premium on elders and custodians of oral memory.

This internal division is further exacerbated by the public's general distrust of institutional frameworks. Persistent corruption and weak leadership have eroded faith in state-driven

technological initiatives, leaving AI adoption to depend heavily on fragmented individual initiative rather than coordinated, federally-funded university planning. Furthermore, the exorbitant licensing fees of proprietary research software present

an insurmountable barrier for underfunded humanities departments, widening the digital divide within the local academic hierarchy.

From a postcolonial theoretical framework drawing on Homi Bhabha's concepts of cultural disruption and hybridization scholars express valid anxieties regarding digital neocolonialism. Because African historical data on the internet remains fragmentary or nonexistent, uncritical reliance on Western-engineered AI effectively permits external algorithmic structures to rewrite, interpret, and distort African identities, mimicking the epistemic violence of the original colonial encounter.

5. Conclusion

The integration of Artificial Intelligence into Nigerian historical studies represents an irreversible evolutionary step that the academy cannot afford to ignore. AI possesses immense utility as a digital research assistant, offering powerful tools to preserve endangered data, digitize analogue archives, and unpack large-scale historical information. However, to avoid epistemic marginalization, Nigerian historians must actively dictate the terms of this technological transition. Computational methods must always remain strictly subordinate to qualitative human interpretation, rigorous source criticism, and ethical oversight.

6. Recommendations

To achieve a balanced integration, massive, concerted collaborations must occur between African computer scientists, computational linguists, and historians to build localized AI training datasets that natively support the complex orthographies, tonal changes, and idioms of Nigerian languages like Yoruba, Igbo, and Hausa. African governments and local philanthropists must actively sponsor independent research at the intersection of AI and African history. This will break the structural reliance on Western-screened capital and protect indigenous digital sovereignty.

Abbreviations

AI	Artificial Intelligence
HTR	Handwritten Text Recognition
ASR	Automatic Speech Recognition
GIS	Geographic Information Systems
OCR	Optical Character Recognition
LLM(s)	Large Language Model(s)

Author Contributions

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Tongshinen Paul: Conceptualization

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Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Gwagwa, A., Kraemer-Mbula, E., Rizk, N., Rutenberg, I., & de Beer, J. (2020). Artificial intelligence (AI) deployments in Africa: Benefits, challenges and policy dimensions. *The African Journal of Information and Communication*, 26, 1-28. <https://doi.org/10.23962/10539/30361>
- [2] Falola, T. (2011). African historical writing. *The Oxford History of Historical Writing*, 5, 399–421. <https://doi.org/10.1093/oso/9780199225996.003.0020>
- [3] Esamagu, E. E., Wazhi, E. N., & Adeyinka, T. A. (2024). The intersection between artificial intelligence, interdisciplinary collaboration and African history. *Àgídígbo: ABUAD Journal of the Humanities*, 12(2), 540–553. <https://doi.org/10.53982/agidigbo.2024.1202.38-j>
- [4] Bakare, M. I. (2024). Artificial Intelligence and social studies education in Nigeria: A pathway to enhanced learning and critical thinking in Nigeria. *International Journal of Creative Research Thoughts (IJCRT)*, 12(8).
- [5] Onianwa, O. I. (2024). Mediation of artificial intelligence in digitizing bibliographies of secondary sources in historical research. SSRN. <https://doi.org/10.2139/ssrn.4915641>
- [6] Tolulope, A. I., Isaac, M., Timileyin, O., Seth, S., & Kingsley, O. (2024). Artificial intelligence research in Nigeria: Topic modelling and scientometric analysis. *IAES International Journal of Artificial Intelligence (IJ-AI)*, 13(1), 597–609. <https://doi.org/10.11591/ijai.v13.i1.pp597-609>
- [7] Bolarinwa, A. O. (2025). Artificial intelligence (AI) and cultural heritage: An integration of AI in the sustainability of cultural orientation. *The Pastoral Counsellors: Journal of Nigerian Association of Pastoral Counsellors*, 4, 68–73.
- [8] Gaith, K., & Hutson, J. (2024). A qualitative study on integration of artificial intelligence in cultural heritage conservation. *Metaverse*, 5(2), 2654. <https://doi.org/10.54517/m.V5I2.2654>
- [9] Nwodu, G. E. (2025). Awareness and perception of the use of artificial intelligence for learning among select communication undergraduates in Nigeria. *African Journal of Social Sciences and Humanities Research*, 8(1), 113–130. <https://doi.org/10.52589/AJSSHR-QKE2A0EG>
- [10] Spina, S. (2023). Artificial intelligence in archival and historical scholarship workflow: HTS and ChatGPT. *Umanistica Digitale*, 7(16), 125–140. <https://doi.org/10.6092/issn.2532-8816/17205>

- [11] Olatunji, T., Afonja, T., et al. (2023). Afri names: Most ASR models "butcher" African names. arXiv preprint arXiv: 2306.00253. <https://doi.org/10.48550/arXiv.2306.00253>
- [12] Mohamed, S., Png, M.-T., & Isaac, W. (2020). Decolonial AI: Decolonial theory as sociotechnical foresight in artificial intelligence. *Philosophy & Technology*, 33(4), 659–684. <https://doi.org/10.1007/s13347-020-00405-8>
- [13] Daniel, H. A., & Ifeduba, E. (2025). Using NVivo for qualitative data analysis: A review and practical guide. *Redeemer's University Journal of Management and Social Sciences*, 8(1), 67–72.