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Artificial Intelligence in Reclaiming and Preserving Hausa Language and Cultural Knowledge: An Academic Overview

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ABSTRACT

This study discussed an intersection of artificial intelligence (AI) and indigenous knowledge with reference to the Hausa language, especially how AI is mediating, influencing, and potentially disrupting culturally ingrained epistemologies in the academic context. While on one hand, AI is efficient in translation, text generation, and data processing, its effectiveness, on the other hand, depends on the availability of highly-resourced language datasets, which marginalise low-resource languages, distorting meaning and flattening epistemic and interpretative depth. Using a qualitative research methodology, this conceptual analysis examines AI-produced Hausa texts and draws on previous studies to identify problems in linguistic representation. Observations from 15 respondents (researchers and students) reveal a series of problems in the context of linguistic representation, tonal accuracy, and culturally-based interpretation. Informed by cultural hermeneutics, it becomes clear that AI is unable to reproduce the contextual, moral, and philosophical richness in Hausa proverbs and written poetry, oral narratives, and the 'Ajami' manuscripts. Using the ChatGPT tool to translate some Hausa words and proverbs, the results reveal that indigenous knowledge has been reiterated into Hausa-based AI corpora, with online archiving and humanities-driven partnerships between linguists and AI engineers. The paper, therefore, considers African languages as the epistemic partners, as opposed to marginal datasets, such that the integration of AI would continue to contribute to the cultural and academic authority.

KEYWORDS: Hausa, Epistemic, Moral, Proverbs, ChatGPT.

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1. INTRODUCTION

Artificial Intelligence (AI) has emerged as a transformative force in language preservation and cultural heritage documentation, offering new avenues to support indigenous communities in safeguarding their linguistic and cultural legacies. Yet, indigenous languages globally are under threat due to globalization, urbanization, and shifting educational priorities. Ayesu and Essien (2025) argue that the encroachment of Western influences, including the use of English, has raised a series of concerns among community members, especially in Africa, concerning the preservation of their indigenous language and cultural identity. For the Hausa language and the broader cultural knowledge associated with the Hausa people of West Africa, AI presents both unprecedented opportunities and complex challenges. As a widely spoken Chadic language with deep literary, oral, and artistic traditions, Hausa exemplifies a major indigenous language that can benefit from AI-enabled initiatives focused on documentation, revitalization, and interactive engagement across generations. This scholarly overview synthesizes current research, practical applications, and theoretical debates, grounding the discussion in recent academic literature and framing it within broader concerns about linguistic diversity, ethical design, and community participation. Research in digital humanities and cultural preservation demonstrates that AI can accelerate efforts to document and disseminate local languages and cultural forms by processing large volumes of text and speech, supporting real-time translation, and enabling searchable digital corpora.

The fast adoption of artificial intelligence (AI) in education, research, publishing, translation, and overall knowledge production has revolutionized the structure of modern scholarship. Since systems that run on machine learning are more in generating texts, summarizing literature, translating languages, and helping people to write academic papers, they are changing epistemic authority and intellectual work. Scholars, such as Crawford (2021), claimed that AI systems cannot be considered neutral computational systems because they are socio-technical systems that are influenced by political economies, data hierarchies, and linguistic asymmetries. Bender, Gebru, McMillan-Major, and Shmitchell (2021) also warn that large language models replicate the bias

present in the data they are trained on and thus openly amplify structural inequalities. AI has recently been mediating instruction in classrooms, automated evaluation, online libraries, and academic communication. Holmes, Bialik, and Fadel (2019) therefore, note that AI systems claim to be more personalized and efficient in the learning environment; although, such efficiency tends to focus on the leading linguistic datasets. That is why the languages that have small digital corpora, often called low-resource languages, are systematically marginalized in the AI ecosystems. Joshi, Santy, Budhiraja, Bali, and Choudhury (2020) empirically reveal that the huge majority of training data available in natural language processing (NLP) is represented by a small group of global languages, whereas thousands of languages are underrepresented digitally. This is a disproportion that produces what researchers call data colonialism against the indigenous ones (Couldry & Mejias, 2019; Adeyinka, Jatto, & Ajani, 2025).

Hausa, as a language, is being placed in a contradictory situation in this global asymmetry. On the one hand, Hausa is among the most popular African languages, and it was used as a lingua franca in the vast West African Sub-region. It is used by tens of millions of individuals in northern Nigeria, Niger, and the communities in diaspora. Conversely, in spite of its demographic allegiance, Hausa is still under-represented in superior quality AI training data compared to languages such as English, French, or Mandarin. According to Bird (2020), the fact that African languages are marginalized in the technological sphere is not based on their inadequacy but rather on the lack of infrastructure and disproportional investments in language technologies. To place Hausa in this discussion, one needs to acknowledge it as something more than a means of communication, but a vehicle of epistemology. The main concern in the present research, is whether AI progresses or diminishes indigenous knowledge systems that are embedded in the language, especially Hausa. While AI provides opportunities where oral archives are digitized, endangered materials are automatically transcribed, and Hausa scholarship is more visible to the whole world, African language technology projects, on the other hand, indicate that linguistic preservation can be improved through localized AI development through community-oriented efforts (Bird, 2020; Muhammad, Ahmad, Abdulmumin, Lawan, Sani, Imam, Aliyu, Sani, Umar, Gwadabe, Church, & Marivate, 2025). Conversely, an uncontrolled use of AI can be a cause of epistemic reduction. When Hausa proverbs, praise poetry, or Islamic legal ideas, for instance, are run through systems that are focused on the English-language forms of representation, the interpretive richness of Hausa humanities can be reduced to generalizing algorithms.

STATEMENT OF THE PROBLEM

Most of the artificial intelligence systems used in academic writing, translation, and research are trained on global languages. Joshi, Santy, Budhiraja, Bali, and Choudhury (2020) add that the majority of natural language processing resources focus on a few high-resource languages, and hence many African languages, such as Hausa, are relatively underrepresented in structured and annotated data. Such an imbalance is not only applied to the technical performance but also to epistemic representation. The semantic distortion is one of the risks that can occur in the short run. Big language models produce results on the basis of statistical likelihood but not cultural insight (Bender, Gebru, McMillan-Major, & Shmitchell, 2021). The second issue is epistemic dependency. With the widespread adoption of AI tools in Nigerian higher education institutions, students can be asked to use automated summaries of Hausa literary texts rather than working with primary sources, including 'Ajami' form of writing manuscripts or oral poetry. In other disciplines such as humanities where an interpretive sensitivity is needed, the analysis of the strata of meaning in Hausa praise poetry ('waƙa'), the synthesis can be automated at the cost of slowness and the context of reading. The possibility of losing interpretive depth is also there. The Hausa Islamic discourse often make use of such terms as 'amana' (trust as a kind of divine and social requirement). In cases when AI systems are summarizing religious texts, such notions can be reworded to a limited scope of meaning, such as responsibility, and leave out the theological and communal aspects of it. Crawford (2021) therefore says the power and priorities inherent in AI systems are manifested in the training data which lacks historical or spiritual sensitivity on its own. Accordingly, Holmes, Bialik, and Fadel (2019) add that AI in education promotes efficiency and fast production.

In terms of developing or substituting humanistic queries with the automated synthesis, the artificial intelligence (AI) can produce formal Hausa literature or culture-related essays in a matter of seconds. While this seems to be efficient on the one hand, it also serves as a threat to the interpretive power of academics who have been trained in areas such as sociolinguistics, oral tradition, and cultural hermeneutics on the other hand. With Hausa studies already bargaining a place on the world academic spectrum, over-reliance on AI-produced content is likely to even further marginalize the native knowledge production in the society. Therefore, the issue is not the technological adoption per se but the possibility of distortion, simplification and displacement of the indigenous Hausa knowledge in the context of the AI-mediated academic world. The intellectual integrity of Hausa humanities scholarship can be compromised by the integration of AI in the absence of any conscious effort.

PURPOSE OF THE STUDY

The main purpose of this study is to analyze the interface between the artificial intelligence and indigenous knowledge within the context of the Hausa language in academic environment. In particular, the research aims to achieve the following specific objectives:

1. Analyze AI involvement in the Hausa indigenous knowledge as it affects linguistic representation, and cultural mediation.

2. Consider the implications of adopting AI in the epistemologies of indigenous knowledge as they reflect in Hausa discourses, such as proverbs, translation, and cultural interpretation.
3. Suggest context-appropriate methods of reclaiming and protecting the indigenous knowledge in AI-mediated academic contexts.

RESEARCH QUESTIONS

The present research is guided by the following research questions:
1. How does AI involvement affect the Hausa indigenous knowledge as it affects linguistic representation, and cultural mediation?
2. What are the implications of adopting AI in the context of indigenous knowledge, as they reflect on Hausa discourses, such as proverbs, translation, and cultural interpretation?
3. Which appropriate methods to use in reclaiming and protecting the indigenous knowledge in AI-mediated academic contexts?

THEORETICAL FRAMEWORK

The theoretical framework on which this study is grounded is a Cultural Hermeneutics. This theory (Cultural Hermeneutics - (CH)) developed by Gadamer in 1975 is based on the hermeneutical philosophical tradition. Gadamer believes that understanding is culturally mediated and historically achieved. In this approach, interpretation does not mean a coded message of the linguistic signs but rather a process of dialogue influenced by tradition, context and experience. The fundamental assumption of Cultural Hermeneutics is that, meaning is located. Language represents the collective memory, moral systems and social relations. Therefore, the interpretation should be accommodative of the cultural horizons of the production and reception of texts. This is particularly important in the Hausa environment. Proverbs, praise song - 'waƙa', folktales - 'tatsuniya' and Islamic scholarly texts are not independent linguistic texts but they are embedded in communal history and practice. As a means of illustration, the meaning of such concepts as honour and social dignity ('mutunci') and trust as a social and divine duty ('amana') owe their entire interpretation to Hausa socio-religious lives of the people (Yakasai, & Mukoshy, 2025). A simple or even superficial translation of such terms does not reflect the stratified philosophical connotations.

The Cultural Hermeneutics can thus offer a critical perspective to the study of the interrelationship between indigenous knowledge and artificial intelligence such as this. AI systems are mainly based on statistical modelling and pattern recognition Oveh, Aziken & Atomatofa, 2025). As Bender, Gebru, McMillan-Major, and Shmitchell (2021) note, large language models produce text through the use of patterns of probabilities and not understanding that is historically grounded. This, according to a hermeneutical perspective, brings up some basic issues: although AI can reproduce Hausa grammatical structure or generate complete translations using it, it is not involved in the cultural horizon within which these structures have meaning. Using Cultural Hermeneutics in the present study allows strict questioning on whether the interpretation depth is retained in AI-mediated Hausa texts or whether they just pretend to have coherence. This, therefore, anticipates the boundaries of the decontextualized computational analysis and validates the position of the humanities as a guide to the culturally based interpretation. Through this, the framework would be in line with the main purpose of the present study, which is to analyze the interface between artificial intelligence and indigenous knowledge within the context of the Hausa language in an academic environment. AI is neither inherently harmful nor completely unbeneficial. Its impact depends entirely on who designs it, what data it is trained on, and how it is used. Therefore, this study distinguishes between 'unmediated' AI use (which risks distortion) and 'human-supervised' AI use (which can support language and cultural documentations).

LITERATURE REVIEW

The learning of high-resource languages is grossly biased in the artificial intelligence systems, leaving low-resource languages like Hausa to the periphery. Joshi, Santy, Budhiraja, Bali, and Choudhury (2020) observe that over 90 per cent of natural language processing datasets have concentrated on a few languages, as a result of which thousands of languages (which form most African languages) are structurally under-represented. This forms the so-called digital coloniality, a kind of epistemic dominance in which technological structures favour dominant knowledge systems and erase the indigenous epistemologies (Couldry & Mejias, 2019; Tsukamoto, 2024). Practically, AI tools could not do so much with Hausa proverbs, oral literature, or scholarly texts, especially about Islam, since the datasets upon which they are built contain such forms of expression. According to Crawford (2021), AI systems learn trends in data without comprehending their cultural meanings, and they run the risk of making the epistemic diversity of marginalized languages flat.

Crawford (2021) emphasises that AI systems are inherently part of extractive logics, which are based on massive data harvesting activities that do not necessarily honour cultural ownership. This, in the Hausa context, poses an urgent question on data and intellectual sovereignty. Some of the questions about who curates Hausa linguistic corpora? What is proper orthography?, and who is deciding which forms of dialect becomes standardized in the AI system? These could not be considered technical questions but humanistic questions, touching on the identity, power, and epistemic justice. The study of AI in relation to the Hausa language is

not a marginal investigation but an intervention in the debate for the future of humanities worldwide. In the event that the language is the main mode of indigenous knowledge, and AI is becoming a mediator in the process of language production and interpretation, then the existence of indigenous epistemologies will rest on the optimism with which AI enters the academic and cultural realms. The difficulty lies not in avoiding AI in its entirety but in questioning its assumptions and showing its asymmetries and repossessing Hausa as a living epistemic archive in the digital modernity (Adebayo, Fatai, & Ekue, 2024; Aremu, 2024). In line with the current investigation, Ya'u and Mohammed (2025), who researched AI-assisted writing tools and their implications for academic literacy, add that the emergence of AI-assisted writing tools has indeed redefined academic literacy by providing students with assistance with grammar correction, sentence structure, and idea generation. Nevertheless, the issue of academic integrity and excessive dependence on AI is becoming very common. While the present paper focuses on reclaiming and preserving indigenous knowledge, Ya'u and Muhammed (2025) found that Nigerian university students widely use AI writing tools, raising concerns about academic integrity and over-reliance, though their study did not focus on indigenous knowledge specifically.

Language is a store of the native knowledge. It is a place where social norms, moral principles, historical memory and identity are stored. African languages are abundant epistemic reservoirs, but AI technologies, according to Bird (2020), do not always reflect this profundity since they are based on curated datasets of global, high-resource languages. Knowledge that is passed on through narratives, songs, and proverbs is passed not only across generations but also is found in oral traditions. Therefore, oral culture is more effective which preserves the memory of the past and moral teachings (Vansina, 1985). Folktales ('tatsuniya') and praise poetry ('waƙa') are used not only in Hausa society as entertainment but also carry some moral lessons and hierarchies coded into them. These points of semantic layers in the forms can be frequently and contextually interpreted. As an illustration, a poetry ('waƙa') performed within a royal court could be both a glorification of a leader and a political teaching concerning the concepts of loyalty and social duty. The epistemic richness of such texts, when they are not read through the cultural and historical context, is likely to be diminished by AI systems, which interpret them as mere literal meanings or syntactic forms of the text.

Hausa is one of the languages with a well-endowed epistemic archive, comprising several different registers such as proverbs, praise poetry, oral narratives, and Islamic scholarship. While Hausa proverb such as 'rana ba ta ƙarya sai dai uwar ɗiya ta ji kunya' teaches moral, ethical and social values within normal daily life of the Hausa society, praise poetry ('waƙar yabo'), is considered a source of historical and political knowledge which tends to glorify the successes of the rulers and strengthen the communal values (Sa'id, 2006). The Islamic scholarship in Hausa, transmitted in 'Ajami' manuscripts (Arabic script adapted to Hausa), has centuries of legal, religious and philosophical history and reasoning. These texts contain commentaries on jurisprudence, ethics and theology. Last (1967) adds that Qur'anic legal interpretations and ethically based moral teachings can be found in 'Ajami' manuscripts as it was a combination of religious and local knowledge. Oral stories, in their turn, play major role in the maintenance of communal memory. The performance and relational social norms, historical events and spiritual beliefs are recounted in stories told by griots, elders or travelling poets. These types of knowledge are inherently contextual as they do not merely rely on words but also on tone, audience, and cultural knowledge. These interpretative subtleties cannot be completely replicated in AI systems that are mostly based on statistical associations. Combined, these aspects put emphasis on the fact that the Hausa language is not only a medium of communication but also an epistemic treasure trove that lives. Epistemic flattening and cultural marginalization cannot be avoided when engaging AI in academic settings by taking into consideration the traditional richness of the Hausa people.

The worldview, social organization, morality, and collective recollection are encoded in language. The Hausa society has a traditional system of oral and written traditions, which convey knowledge and interpretive depth and sensitivity of the context in the language. As an example, centuries of Islamic knowledge, jurisprudence, poetry and moral teachings exist in Hausa 'Ajami' manuscripts that are written in adapted Arabic script. The manuscripts are not simply textual objects; the texts are cyphers of intellectual heritages, the trans-Saharan encounters and the local interpretative cultures. In addition, oral forms of knowledge like poetry ('waƙa'), folktales ('tatsuniya'), and proverbs ('karin magana') are used as epistemic instruments. One of such proverbs is 'rana ba ta ƙarya sai dai uwar ɗiya ta ji kunya' (The wedding day will surely come, and only the mother of the bridegroom would be ashamed). This kind of expression is not entirely comprehensible in a literal translation, but it uses cultural ideas to describe it, especially based on shared experience. The knowledge of Islam also demonstrates the epistemic density of Hausa as a language and as a people. Moral reasoning is organized in terms of trust ('amana'), honour ('mutunci'), and truthfulness ('gaskiya') in relation to politics, religion, and business. When these ideas are represented in electronic translation devices, they are usually distilled into small lexical equivalents in the English language, thus depriving them of a sociocultural echo. Bender, Gebru, McMillan-Major, Shmitchell (2021) point out that language models do not comprehend anything. Rather, they are approximating the meaning in a statistical manner, without understanding the embedded cultural contexts in the language.

2. METHODOLOGY

Research design

As the study involves textual and interpretive analysis to investigate the interface between artificial intelligence and indigenous knowledge of Hausa, this study adopts an exploratory qualitative case study design, focusing on the Hausa language as a single case of a low-resource African language in AI-mediated academic contexts. Hausa texts and translations, as well as summaries that were generated by AI were compared systematically with the interpretations of human experts. This entails evaluation of the semantic faithfulness, cultural sensitivity, and contextual correctness. As an illustration, the proverbs and literary passages were rated based on the ability of AI to pick the moral, philosophical, and social significance, and then were picked by scholars (two University lecturers in the Department of Linguistics) who understand the Hausa language and culture very well. Discourse analysis is used to analyze AI translation of proverbs ('karin magana'), praise poetry ('waƙa'), oral story tells ('tatsuniyoyi'), and academic work. Those patterns of semantic distortion, lexical reduction, and flattening of knowledge embedded in the culture were analysed. By using this discourse analysis approach in this study, it is possible to identify systematic strengths and weaknesses in the generation of Hausa texts using the AI.

Sampling technique

Even though the results are not to be generalised, only fifteen (15) participants (Hausa lecturers/ researchers, postgraduate students, and users of digital language tools) from a population of 15 participants in selected universities in Nigeria were interviewed. The interview was only to establish the participants' background context, and not as primary data for the conceptual analysis. As the sample size of the study was 15 (with 5 Hausa lecturers/ researchers, 5 postgraduate (Master's and PhD) students, and 5 users of digital language tools selected from the Ahmadu Bello University, Zaria; Bayero University, Kano; and Usmanu Danfodiyo University, Sokoto, Nigeria, the choice of these institutions was informed by the existing customs of the Hausa studies, linguistics, and manuscript scholarship. The decision to use 15 samples in the present study aligned with Krejcie and Morgan's (1970) Sample Size Determination Table. Besides the use of a sampler of representative AI-generated Hausa texts, such as translations of proverbs and summaries of works of literature, AI-supported samples of academic writing were also incorporated.

Instrumentation

Even though there are different AI tools for academic engagements, such as Google Translate (version 2024), ChatGPT-4, Claude, and so on, this study analysed texts generated by ChatGPT-4. This is to give room for replication by other researchers. For seamless conceptual analysis, the use of ChatGPT to translate Hausa words and proverbs for analysis was necessary, as all translations and summaries were generated between September and November 2024. This, therefore, facilitated the triangulation of the views of the participants and real AI outputs. The methodological design was balanced in rigor and feasibility, as it was possible to conduct an in-depth qualitative inquiry of the emerging themes as well as make it suitable for a study such as this. The choice also helped to engage in a critical analysis of the interaction of AI with the Hausa and indigenous knowledge and identify potential risks and methods of preserving the cultural and epistemic peculiarities. The conceptual data analysis was to examine the AI-produced Hausa texts that will identify problems in linguistic representation for insights to be drawn for further discussions.

Data Analysis

This section presents data analysis using an AI (ChatGPT) tool to reflect and demonstrate how AI mediates, influences, and potentially disrupts the culturally ingrained epistemologies in the academic arena. Below are pure ChatGPT translations of Hausa words and proverbs:

1.) An Abridged ChatGPT Translation based on Moral Accountability and Social Consequences:

a) **Hausa Proverb:** 'Rana ba ta ƙarya sai dai uwar ɗiya ta ji kunya.'
Literal Translation: The sun does not lie; it is the mother of a daughter who feels shame.
(Sooner or later, the day will break)
Interpretive Translation: Truth inevitably reveals itself, often exposing hidden actions and bringing social consequences, particularly to those responsible for moral upbringing.

b) **Hausa Proverb:** 'Komai nisan jifa, ƙasa zai faɗa'.
Literal Translation: No matter how far something is thrown, it will fall to the ground.
(Whatever goes up, it will surely come down).
Interpretive Translation: All actions, regardless of their apparent reach or delay, ultimately return to their origin or consequence.

2.) An Abridged ChatGPT Translation based on Causality, Hidden Forces, and Natural Order

a) **Hausa Proverb:** 'Ruwa ba ya tsami banza'.
Literal Translation: Water does not turn sour without reason.
(There is no smoke without fire).

Interpretive Translation: Every occurrence has an underlying cause; nothing happens without justification.

3.) An Abridged ChatGPT Translation based on Lexical-Tonal Contrasts and Semantic Nuance in Hausa

a) **Hausa word:** 'ƙaáraá'.
Meaning: Addition or increase.

b) **Hausa word:** 'ƙaàraá'.
Meaning: To intensify, or to repeat, or to do something again.

c) **Hausa word:** 'cíkií'.
Meaning: Fullness, completeness, or sufficiency.

d) **Hausa word:** 'cíkìì'.
Meaning: A state of being filled (possibly with a different grammatical or contextual nuance).

Insight:

These show how tone and vowel length distinguish meaning between two or more words in Hausa. The distinctions are important for linguistic and philosophical interpretation of tonal shifts, especially from high to low tone, which can alter meaning significantly. This also reflects the importance of prosody in encoding semantic precision in Hausa. Philosophically, it underscores how subtle variation shapes interpretation, much like nuance in ethical judgment. Again, tonal variation signals differences in grammatical category or emphasis. These forms illustrate how Hausa encodes states versus processes, or static versus dynamic conditions, which can be extended metaphorically to philosophical discussions of being versus becoming.

3. RESULTS AND DISCUSSION

This section provides results and discussions of the interaction between artificial intelligence and the Hausa indigenous knowledge. The discussion was structured into 4 interconnected sub-themes, which includes linguistic representation such as cultural depth versus computational efficiency, academic authority and knowledge production, as well as strategies for reclaiming indigenous knowledge. Among the key issues of AI in Hausa is that of proper representation of the language, especially in terms of tone and semantic ambiguity of words. Even though tone is not marked in the normal Hausa orthography, it plays a phonemic roles in oral communication in the language, as it changes the meaning of a word in significant ways. The untrained AI systems often fail to recognize these differences, and therefore their output is semantically unstable. For instance, one such example in Hausa is the word "ƙara", which, when written, can either mean sound/ noise or add/increase something, depending on the tone, which can either be high + high (HH) or low + high (LH). As indicated, these meanings in spoken Hausa are differentiated by tonal variation such as "ƙaáraá" - HH (sound) and "ƙaàraá" - LH (to add). In the absence of tonal annotation, the AI systems can only use the contextual probability, which can be misinterpreted particularly where the sentence is either short or poetic. Likewise, the word "ciki" can take the meaning of either a noun or adverb of a place. Meaning, it may refers to either a "stomach" or "inside". The tonal contrast in the oral language makes the difference in meanings very clear to the listeners. Such subtle phonological distinction, cannot be confidently represented in the AI models that have been trained on text that is tone-neutral. The semantic flattening of language technologies is common in the absence of phonological annotation in training data, as evidenced in the analysis of low-resource language technologies by Bird (2020). In Hausa for instance, the output is grammatically correct, but it does not reflect the intonations in the spoken speech, especially in poetry, sermons, and rhetorics. Even more difficult to translate and interpret using AI is the presence of proverbs and metaphorical statements where the meaning is not always direct but instead is culturally stratified. Hausa proverbs such as "komai nisan jifa, ƙasa zai faɗa" and "ruwa ba ya tsami banza" have moral causation, social responsibility and philosophical insight on human actions. The former adage highlights the inevitability of something that eventually comes out to be what it always was, and the latter adage implies that there are no bad things that happen without reasons.

However, translations created by AI are more likely to recreate superficial meanings without being able to reach the ethical power of their depth. A literal translation like the one of "Whatever goes up, must surely come down" portrays the physical outfit but not the ethical lesson of duty and retribution. Similarly, translating "ruwa ba ya tsami banza" to 'water does not become sour for nothing' or rather, 'there is no smoke without fire' would retain the lexical meaning but not the more profound meaning of concealed causality in social existence. The issue lies in the fact that AI systems work under the principle of the statistical recognition of patterns instead of interpretation based on the culture, as argued by Crawford (2021). In turn, they have a problem with the expressions that have meaning which relies on the common historical experience, shared values, and pragmatism. This produces linguistically plausible, epistemically shallow translations in the Hausa proverbial discourse, and is indicative of the scope of computational processing in culturally encoded language. The AI systems are quick and consistent ways of producing a translation or summary almost immediately. But such computational efficiency is usually purchased at the cost of the cultural and hermeneutic richness of the language. The Hausa literature often has context-based meaning, which it needs the understanding of the historical, social, and religious frameworks. A poem ('waƙa') in praise of a traditional ruler can refer to local happenings, family trees, and moral values, all of which can be easily flattened in a machine translation. According to Gadamer (1975), the tension between efficiency and

depth is one of the issues of cultural hermeneutics. AI has the ability to replicate the sentence structure, but it is not capable of interpreting the text and having a dialogue with it, as a human scholar can do. This prompts loss of embeddedness of context and moral, philosophical, and social aspects of Hausa knowledge are poorly reflected in AI systems. As an example, summaries of 'Ajami' texts in Islamic jurisprudence may exclude critical commentaries or moralizing, which may generate a shallow coherent but epistemically products (Last, 1967). The introduction of AI in academic practices creates alterations in the interpretative responsibility and academic authority. AI-based writing aids are capable of generating essays, literature reviews or translations and this creates a temptation among scholars and students either to use the outputs of the AI without necessarily going to the original sources or not. According to Holmes, Bialik, and Fadel (2019), relying on the use of AI 100 percent takes the risk of unknowingly undermining critical thinking and interpretive rigor. This also has great implications in Hausa studies. The classical school pays attention to reading of the texts, oral consultations and interpretation of context. Not all the output of the AIs possibly represent the subtle moral and social teachings found in the Hausa literature or Islamic writings, even though they sound linguistically reasonable. In turn, the human scholars will eventually surrender the epistemic power to the computational systems and become intellectually enslaved, with the indigenous interpretation practices being side-lined.

These challenges notwithstanding, AI can also be used to recover and preserve Hausa indigenous knowledge under the guidance of culturally informed strategies. Incorporation of the Hausa corpora into digital form (e.g., oral traditions, 'Ajami' handbooks, literary corpus) can increase the number of representations in AI training data sets without reducing interpretation quality. Bird (2020) argues that collaborative work between universities and local cultural custodians may produce annotated datasets that represent tonal, semantic, and contextual data so that, when given to AI, they will produce outputs that reflect the cultural meaning more accurately as expected. There must be indigenous data sovereignty. The Hausa communities and scholars should actively engage in the creation and annotation of datasets, as well as the evaluation of artificial intelligence models, so that knowledge is reflected in an ethical and correct way. Crawford (2021) further contributed to the fact that this strategy is in line with the idea that the humanities must be at the forefront of AI integration so as to make sure that technology adds value instead of compromising interpretive and cultural authority. Emphasizing the integration of AI led by humanities, scholars will be able to embrace the effectiveness of AI and the richness of culturally-based interpretation. This can be based on the use of AI to help translate oral poetry, index 'Ajami' manuscripts automatically, and develop searchable Hausa linguistic databases, which do not supplant human scholarly judgment.

This research has a number of implications for the scholarly community in the field of language, culture, and technology. Concerning how to locate Hausa in the AI discourse of the world, the present study explores the interaction of AI systems with the Hausa indigenous knowledge in ways that prioritize low-resource languages as the subject of discussion, unlike the traditionally large-resource languages. This underscores the dangers of epistemic marginalization as well as the possibility of technological design, which is inclusive. With regards to the future of the humanities in the technological modernity debate by AI, the present study questions the impact of AI on the conventional humanistic activities such as translation, interpretation, authorship, and critical thinking. Applying humanities-based AI integration, this offers insights on how humanistic inquiry may maintain power and position in the age of algorithmic knowledge production. However, to bridge the sociolinguistics, digital humanities, and African epistemology, this study therefore connects the structuring and meaning of cultures through its mediation by technology and how sociolinguistic knowledge and digital technologies might intersect to maintain and transmit indigenous epistemologies. This can also be linked to a proposal on a culturally-based approach to introducing Artificial Intelligence (AI). With this, the present study supports the offering of a practical basis for introducing AI into the academic and cultural context without compromising interpretive and ethical concerns by using the strategies of digitization of annotated Hausa corpora, participatory data development, and deploying AI in a context-sensitive way. When put together, these contributions argue in favour of indigenous knowledge systems in technological discourse on a global scale and make the adoption of AI to reinforce cultural and epistemic diversity instead of reducing it. The present study is limited to AI involvement as it affects the Hausa indigenous knowledge for linguistic representation and cultural mediation, using Gadamer's (1975) Cultural Hermeneutics (CH) theory.

4. CONCLUSION

From the foregoing, it was established that AI is not neutral but an imitation of the power formations of the global system that values high-resource languages and epistemologies. The Hausa language represented, as revealed in the present study, is a complex and many-layered epistemic richness, comprising proverbs, oral literature, praise poetry, and Islamic science, and cannot be fully replicated to be translated into simple computational data. To reclaim the indigenous knowledge in the AI age, it is vital to take action as a scholar to ensure that the humanistic understanding determines how to interpret and analyze AI products. This also requires the enactment of ethical AI policies that will support the establishment of data sovereignty, the creation of datasets based on cultural considerations and the responsible use of AI technologies by the relevant authorities. Lastly, the engagement of the humanities is critical to ensuring that all interpretive power remains intact, and the intended context is not lost, and that epistemic flattening is avoided. In the near future, the implementation of AI into the African academic and cultural environment should view

indigenous languages as epistemic companions, but not peripheral data sets. In this way, the AI can be utilized as an instrument and tools to protect, maintain, and the intellectual and cultural wealth that is inherent in languages like Hausa. According to the findings and discussion of the present study, the following recommendations would guarantee the reclaiming and preservation of Hausa indigenous knowledge in the AI-driven academic settings. To build a Hausa-based AI corpus, universities and research institutes need to put more effort into developing annotated, culturally diverse datasets with tonal signs, proverbs, oral stories, praise poetry (‘waƙa’), and ‘Ajami’ manuscripts. This will enhance the linguistic accuracy of AI and maintain epistemic depth. On how to standardize institutional policies on the use of AI in humanities research, policies must be established to serve as a guide to writing, translating, and analysis using AI. Such policies must not subtract but augment human interpretation and scholarly judgment. In terms of funding the digital preservation of oral traditions and literature, the digitization initiatives will no doubt assist in preserving the culturally valuable knowledge that is at risk of being lost and ensure the availability of digital libraries to train the AI and maintain context, performance, and richness of interpretation. This will go a long way to supporting the cross-disciplinary work between linguists, cultural custodians, and AI developers. Relatively, an interdisciplinary collaboration between two or more disciplines can help to make AI systems culturally based frameworks, which encourage humanistic control, indigenous data ownership, and proper depiction of Hausa epistemologies. When the above recommendations are implemented, this approach would help restore and empower the indigenous knowledge, but also make it possible to ensure that the AI deployment in Africa is guided by academic, ethical, and cultural priorities.

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