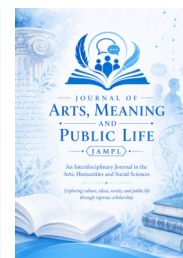


Published by FLAYOO PHL

Journal of Arts, Meaning and Public Life

Arts • Social Sciences • Public Life

<https://flayoophl.com/journals/index.php/jampl>



Artificial intelligence and the politics of knowledge: how african knowledge systems can benefit

Jesse Iorfaga [Agede](#)^{*}, Philip Adah [Idachaba](#)^{ID}

Department of Philosophy, Federal University of Lafia, Nasarawa State, Nigeria

ARTICLE INFO

Article history:

Received: 28 July 2026

Received in revised form: 02 August 2026

Accepted: 14 August 2026

Available online: 21 September 2026

Keywords: African knowledge,
Artificial intelligence,
Decolonisation, Eurocentrism

DOI: [10.61298/jampl.2026.1.2.417](https://doi.org/10.61298/jampl.2026.1.2.417)

ABSTRACT

Advances in artificial intelligence (AI) create another opportunity for Western epistemological frameworks to dominate the global knowledge landscape and further marginalise diverse African Knowledge Systems (AKS). At the same time, AI has the potential to harness and amplify AKS rather than perpetuate their exclusion. Knowledge production is shaped by power relations among institutions, cultures, and nations and has historically favoured the West through colonisation and the interruption of African civilisations. This paper examines the prospective relationship between AI and AKS and its potential to promote epistemic diversity, preserve and disseminate indigenous African knowledge, and support culturally relevant technologies and a more inclusive global knowledge economy. Drawing normatively on Miranda Fricker's theory of epistemic justice, which concerns fairness in who is recognised as a knower and whose ways of knowing count as knowledge, the paper argues that a strategic integration of AI and AKS can help decolonise the politics of knowledge and open new possibilities for socio-economic development in Africa.

© 2026 The Author(s). Published by FLAYOO PHL. This is an open access article distributed under the terms of the [Creative Commons Attribution 4.0 International License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. INTRODUCTION

Artificial intelligence (AI) has become a central part of modern life, affecting all spheres of human endeavour. The development and use of AI systems are not without controversy or concern. Among these concerns is the politics of knowledge, which concerns the power dynamics that shape the production, dissemination, and use of knowledge.

In the field of technology, many important concepts and terms are vaguely defined and inadequately understood by much of the

population outside professional circles. This is particularly so with AI. AI systems, tools, platforms, and processes are ubiquitous within contemporary data ecosystems and infrastructures, including personal mobile computing, industrial automation, social media, 'smart' infrastructure, and transnational logistics and financial networks.

However, beyond a limited collection of professions, business sectors, and social circles, there is little awareness of the rise and significance of AI, or the impact it could have on individuals, societies, and ecosystems at large. Adequate understanding of AI's emergence and underlying rationale is a precondition for meaningful communication about, resistance to, and contestation of these systems. In its absence, such capacities are significantly

*Corresponding Author Tel. No.: +234-703-128-1598.

e-mail: Jesse.agede@fulafia.edu.ng,

jessagede@yahoo.co.uk (Jesse Iorfaga Agede ^{ID})

constrained. AI fundamentally shapes the experiences of individuals and the activities of communities, people, and institutions. It is important to approach this phenomenon with a critical mindset and to understand and scrutinise the development and progress of AI systems and technologies, as well as their incorporation into socio-technical structures (van der Vlist et al., 2024).

Artificial intelligence (AI) covers a range of systems, processes, and platforms with the ability to carry out intelligent tasks. AI is defined as the ability of a machine or computational system to perform tasks typically associated with human intelligence, such as reasoning, learning, problem-solving, perceiving, understanding language, and making decisions by operating in an environment and pursuing goals with some degree of autonomy. These tasks are performed using machine learning, neural networks, and natural language processing. However, there are conflicting definitions of AI. A comprehensive definition of intelligence suggests that AI embraces most technical systems in the modern world; however, it fails to grant autonomy and intelligence to computers and machines. Contrariwise, a restrictive definition limits AI to conscious and cognisant human action, the latter can serve the interests of capitalist globalisation and consumerism. Defining AI in this way serves capitalist globalist consumerism by narrowing AI to a tool for labour replacement, data extraction, and consumer profiling (Walton and Nayak, 2021). It is essential to redefine AI in a genealogical context, especially as it relates to locational politics and the conspiracies of powerful countries and technology corporations. This genealogical approach is vital in understanding the development and nature of AI in the competitive domain of the Fourth Industrial Revolution. Artificial Intelligence takes advantage of data analysis techniques drawn from deep learning, game theory, and economic mechanisms to predict and respond to possible future situations with probabilities of success that may be higher or lower than those of human decision-making processes, depending on the task and context (Mousapour Mamoudan et al., 2024).

Having examined the global expansion of artificial intelligence, the paper shifts its focus to Africa, a region often overlooked within global value chains and the generation of AI. Responding to this constriction of AI knowledge production, African Knowledge Systems (AKS) are projected as interconnected modes of knowledge generation, with the potential to benefit the continent in its own AI development and integration. This paper posits that African knowledge systems can benefit from AI development, but only if the existing power imbalances are acknowledged and addressed.

This paper scrutinises the possibility of integrating Artificial Intelligence (AI) and African Knowledge Systems (AKS), identifying the potential benefits of developing AI systems using data from indigenous African knowledge, thereby promoting African epistemologies and challenging dominant Western epistemological paradigms that have hitherto been privileged. The study promotes the democratisation of AI to support equitable and inclusive knowledge production. It argues that African Knowledge Systems can use AI to enable the development of culturally sensitive and context-aware knowledge, pushing for dialogue on the role of AI in shaping the politics of knowledge and making room for integrating AI into knowledge production in Africa.

The paper uses a qualitative research approach to scrutinise

the impact of intertwining artificial intelligence (AI) and African knowledge systems. The study conducts a textual analysis of the development of AI, paying particular attention to how AI helps to perpetuate or promote Western epistemologies. The paper reviews literature on AI systems and African knowledge systems and proceeds to identify cases of epistemic injustice and opportunities for inclusive and equitable knowledge production. The paper focuses on how indigenous African knowledge can influence the development and design of AI, contributing to the decolonisation of AI by seeking to ensure that African knowledge systems have access, help determine governance policies, exercise ownership and data sovereignty, and participate actively in global AI development and deployment. In this way, it seeks to promote epistemic justice in knowledge production.

2. THE POLITICS OF KNOWLEDGE IN AI

Artificial intelligence (AI) promotes the idea of the capacity of machines and computer systems to carry out tasks that ordinarily involve human intelligence. This involves acquiring knowledge and adjusting to changing circumstances; thinking logically and resolving issues; processing natural language; discerning visual data; and taking steps to accomplish specific objectives. AI can be classified into narrow or weak AI, which is custom-made to execute a particular function like facial recognition, and general or strong AI, which possesses the capability to undertake any cognitive task that a human can. Nevertheless, there currently exists no AI system that meets the criteria for being considered general or strong (Jarrahi et al., 2023).

Recently, artificial intelligence (AI) has made progress. As general conceptions of intelligence have developed and computers have become increasingly powerful, the capabilities of AI have expanded. The availability of big data has also contributed to this advancement. In 1997, IBM's "Deep Blue" defeated world chess champion Garry Kasparov, proving AI's strategic thinking ability. Also, in 2017, Google's AlphaGo triumphed over Ke Jie, the best player in the complex game of Go. These accomplishments have demonstrated the growing influence and impact of advanced AI systems, which are now part of everyday technologies used by millions worldwide. AI has developed in ways that support creative and cognitive tasks across various aspects of human life, including work, transportation, finance, education, relationships, health, art, social interactions, security, and warfare. Even with these outstanding advancements, challenges and limitations persist within the field of AI (Dave and Mandvikar, 2023).

The development of generative AI systems, as it currently stands, carries with it the potential to produce a knowledge monoculture. The risk in such a state of affairs is the sacrifice of dynamic diversity in knowledge production, which will in turn breed homogeneity. The deliberate act of selecting specific content for training datasets and the machine learning models themselves implicitly creates an epistemological hierarchy of the relevance, significance, and value of the inputs. Under such conditions, African knowledges, often categorised as irrelevant, backward, traditional, archaic, or primitive, could be systematically excluded from the generative AI knowledge base. This places African knowledge systems in danger of epistemological eradication. It is important to recognise that generative AI systems are not neutral. Furthermore, the web and internet do not function as equal mediums or

conduits for knowledge dissemination. Instead, they disproportionately reward and promote hegemonic knowledges, leading to the marginalisation of alternative perspectives (Leslie and Perini, 2024).

Knowledge claims cannot all pass as objective truths; they may be social constructs that promote the perspectives and values of those who produce them. This implies, in relation to AI, that the datasets used to train AI systems, the algorithms used for analysing that data, and the goals and objectives of AI systems could be fashioned by the social and cultural backgrounds in which they are developed. Consequently, AI systems lean towards perpetuating and amplifying existing power dynamics, and giving force to dominant narratives and consequently subjugating alternative perspectives. This is a major challenge to AI development. Bias in AI systems can arise from multiple sources, including data that is inherently biased, and algorithms that are flawed.

Knowledge production, when left in the hands of a few organisations, creates intellectual monopolies and makes unequal access to technology possible. The consequence of this concentration is a hegemony of knowledge and thought, a situation in which alternative worldviews and innovations from smaller entities or underrepresented communities are relegated (O'Neil, 2016). As AI systems increasingly affect everyday life, the need for regulation becomes obvious. The ethics of AI development is shrouded in political disagreement concerning what should be acceptable content for these technologies. A further challenge is that, in developing AI technologies, conceptions of fairness, transparency, and accountability differ across cultural and political settings (Binns, 2018).

Knowledge production in AI is controlled by large technology companies and research institutions that determine the narratives concerning capability and ethics. Such organisations possess the infrastructure and resources to shape AI development, market forces, and public perception. For example, Google, Amazon, and Microsoft have invested billions of dollars in AI research and development, and consequently develop AI models that reflect their vested corporate interests and biases. These three firms determine key aspects of the global cloud-computing market. In doing so, they control the infrastructure upon which AI models are built, how they are run, and who derives benefit. This concentration can create bias by encouraging products and cloud use aligned with each company's ecosystem (Widder and Kim, 2025).

3. THE POLITICS OF KNOWLEDGE PRODUCTION

A close look at knowledge production reveals it to be a battlefield of power play. These power relations are evident within institutional and national settings. African scholars widely acknowledge the unequal nature of knowledge production, dissemination, and utilisation, which heavily favours Western perspectives, authors, researchers, forms of representation, and analytical approaches. Those who generate knowledge about Africa for consumption by foreign audiences, citizens of foreign nations, and students to whom this knowledge is transferred often reproduce concepts, methodologies, themes, and materials rooted in foreign cultures. This asymmetry is pronounced, explicit, and one-sided, with scarcely any noteworthy instances that exemplify the inventiveness, resourcefulness, and cultural awareness evident in the production of knowledge about the 'global South' in Western

academic work on non-Western, non-dominant, or marginalised contexts (Amelung et al., 2024).

Power is paramount to understanding knowledge in a general sense and in the generation of knowledge. Colonial powers not only seized control of territories and populations, but also imposed their worldviews and cultures on the colonised and went on to generate knowledge about the conquered regions and people, whether rightly or wrongly. Predicated upon the foregoing, knowledge is essentially concomitant with dominance, authority, and power on an epistemological and even ontological level. This indicates that knowledge is innately political, demonstrating that the production of knowledge is unavoidably intertwined with broader power dynamics. To understand the political dimension of knowledge production, it is important to see knowledge creation itself as a contested field of power relationships (Avelino, 2021).

Those who hold the right to what is accepted as 'Knowledge' wield great influence and exert control and dominance; they determine what is and is not accepted, as well as individual and collective identity and 'truth regimes', whether they are related to knowledge itself or to existence. Foucault's conception of knowledge embraces a wide range of elements. It includes concepts, delineations, ideas, writings, discourses, and activities, whether they are considered scientific or non-scientific, rational or irrational (Foucault, 1977). Foucault's position opens up broader space for accepting various forms of knowledge rather than homogeneity. Scholars who engage with the politics of knowledge creation have often identified the power dynamics involved, whether they are led by the state or centered on institutions (Avelino, 2021).

4. COLONIAL LEGACIES AND KNOWLEDGE HIERARCHIES

Africa's interaction with the modern West has proven to be one of dominance, resulting in a significant imbalance in wealth, knowledge, and power between Africa and the so-called developed world. Colonialism and its child, neo-colonialism, have given rise to imbalance in global knowledge systems. Epistemic violence and/or injustice arising from this interaction tends to perpetuate Euro-Western knowledge systems to the disadvantage of African knowledge systems. It is important for impoverished African nations to rethink their collective knowledge and development objectives, giving priority to reconfiguring and utilising their own knowledge systems, fully embracing AI and other forms of technological advances.

The dominance of Western knowledge systems in global and local knowledge production presents challenges that African countries must confront and overcome. Consequently, there is a need to explore how artificial intelligence and digital tools can create a space for a comprehensive knowledge production system that embraces African knowledge, in so doing fostering African-centred development goals. This reimagining and appropriation of inclusive knowledge production systems requires the revitalisation and reexamination of African knowledge within modern knowledge production environments (Hlabangane, 2021).

Africa has suffered from both material impoverishment in terms of wealth and ontological impoverishment in terms of knowledge, resulting in a stark disparity in wealth, knowledge, and power between Africa and the developed world. The ontologically tenuous perceptions of Africa have been a result of the neglect of

Africa's knowledge, rendering it an epistemic void and justifying colonisation through the imposition of alien Euro-Western knowledge systems. It is crucial to emphasise that the foundation of colonisation was the supposed civilising mission or development of a supposedly knowledge-less Africa.

Today, Africa continues to struggle with impoverished knowledge resources and faces deep epistemic subjugation and displacement as a consequence of neo-colonialism. The impoverishment of knowledge resources has led to the destruction or hindrance of the advancement of Africa's own knowledge systems, while epistemically violent displacement represents the contemporary and relentless onslaught of hegemonic Euro-Western knowledge systems at the expense of Africa's own knowledge systems (Oando and Ilyas, 2024).

As a result of colonialism and ongoing neo-colonialism, there are supra-national, national, and local networks, infrastructures, apparatuses, spaces, and locales of knowledge production that continue to function as Euro-Western knowledge-construction hubs on a global scale. This gives rise to unequal knowledge circulations and power relations, creating knowledge hegemony and concomitant flows of knowledge that greatly impact the construction and dissemination of knowledge. These constructions, insulations, and engagements are all embedded in Euro-Western knowledge, and the fragility of Africa is a product of this dependence on and interaction with Euro-Western knowledge systems. This has led to unequal global knowledge systems and epistemic violence, perpetuating a global hierarchy in the production, interpretation, and distribution of knowledge.

5. AFRICAN KNOWLEDGE SYSTEMS

African Knowledge Systems incorporate the methods by which knowledge is generated, transmitted, and upheld within African societies. These systems are grounded in historical, societal, cultural, and environmental factors, and they comprise oral and written traditions. Traditional African Knowledge Systems concern indigenous knowledge developed over long periods from local communities and cultures, through a process of addressing issues in diverse spheres such as agriculture, healthcare, climate, and societal structure. They prioritise a holistic understanding of and/or the interrelatedness of existence. Higher education establishments in Africa should deliberately promote traditional knowledge systems. The drive should be to integrate indigenous African knowledge into formal systems of education. As noble as this move appears, critics with Euro-Western bias argue that the graduates of these institutions will be indoctrinated with rote knowledge rather than being encouraged to think critically and creatively. Contrariwise, African-centric critics suggest that colonialism has stifled the originality of Africa's knowledge systems, giving rise to a lack of capacity for addressing the continent's challenges through home-grown solutions. This has led to the misconception that Africa lacks robust knowledge systems, which is contrary to the truth. In reality, every community, including those in Africa, possesses valuable knowledge systems (Manathunga, 2020).

Some scholars have observed that regardless of the impact of colonialism, communities and societies are not bereft of some form of indigenous knowledge creation on a continent that bears the oldest human footprints in the world. Some argue that knowl-

edge creation is intricately linked to its context, and as such, the importation of knowledge systems into Africa and its subsequent integration on the continent cannot be done in a ready-made manner. Instead of attempting to repudiate African knowledge systems as worthless, a better approach would be to draw value from the existing unwritten knowledge systems in place through community-led documentation and application. In this way, the value of indigenous African knowledge can be harnessed. Additionally, there are others who have pointed out that relegating Africa's knowledge systems to mere folklore could strip it of its potential to make meaningful contributions to development (Ojo, 2021).

Africa's knowledge systems struggle with various challenges, including the dominance of Eurocentric knowledge, limitations in research and development capacity, cultural relativity constraints, and sociolinguistic barriers. However, opportunities also abound, including Africa's multilingualism, a thriving Pan-African culture that promotes African narratives, an ancient oral tradition, and the prospect of combining traditional knowledge with modernity (Pophiwa and Saidi, 2022).

6. BENEFITS OF INTEGRATING AFRICAN KNOWLEDGE SYSTEMS WITH AI

The assimilation of artificial intelligence (AI) into different spheres of human life has had a powerful impact on work, education, communication, and knowledge. Nonetheless, awareness of the effects of AI systems such as ChatGPT, chiefly in relation to the philosophy and politics of knowledge production, is on the rise. The values, interests, ideologies, and worldviews that guide the production, storage, processing, and dissemination of knowledge by individuals, institutions, and technologies are core themes in ongoing debates. This is because power relations play an important role in shaping the competition to create, store, access, and control different types of knowledge, which are often generated, owned, and controlled by specific cultural or racial groups, especially in the developed world.

The introduction of AI systems that are trained on Western knowledge and/or data into Africa carries dangers, risks, and threats to African knowledge, culture, and civilisation. To address these concerns, it is important to look into the benefits of incorporating African knowledge systems with AI, recognising the challenges that could arise, and to articulate alternative ways that can enhance cooperative, mutual, comprehensive, and equitable collaboration between African knowledge systems and AI. It is also important to point out the perils and dangers that AI presents to African knowledge systems. Efforts must be made to come up with alternative narratives that demonstrate how African knowledge systems can thrive in the era of AI (Hlongwane et al., 2024).

Knowledge systems serve as channels of individual and collective identity; this identity combines beliefs, values, and customs. Indigenous African communities have traditional ecological, agricultural, spiritual, and historical wisdom passed down through generations. A major threat is non-indigenous knowledge encroaching upon and threatening their existence. To avoid this, it is important to protect and revive these cultural legacies by taking advantage of cutting-edge technologies like AI. While this is important, there is a need for safeguards that will ensure that com-

munities give informed consent for access to knowledge forms indigenous to them. This will ensure data sovereignty, access controls and limits on restricted knowledge, attribution, and benefit sharing. The preservation and revitalisation of indigenous knowledge is essential if the negative impacts of globalisation and the potential erasure of African knowledge forms are to be prevented, thereby strengthening their resilience (Fernández-Llamazares et al., 2021).

In Africa, the use of information and communication technologies (ICTs) is focused mainly on education, health, agriculture, and government services. Such technologies can be employed to educate and empower the custodians of the continent's knowledge systems, enabling them to use advanced technologies for knowledge provision, curation, preservation, and revitalisation. The current state of affairs risks propagating the distortion, marginalisation, and neglect of African peoples, concepts, and knowledge in the future. It is necessary to carefully devise plans that will guide the timing and deployment of these systems, nurturing a transfer of knowledge, technology, and language that can benefit Africa and its peoples, consequently laying a foundation for the socio-political and economic development of indigenous people and cultures driven by indigenous knowledge (Mdoda and Mdiya, 2022).

7. INTEGRATING INDIGENOUS KNOWLEDGE INTO STEM EDUCATION AS A CATALYST FOR AI DEVELOPMENT IN AFRICA

Africa's indigenous knowledge comprises traditional technologies, social, economic, and philosophical systems passed down through generations. These systems have applications in areas such as agriculture, healthcare, and natural resource management. Traditional agricultural practices in Africa across different ecological and historical spectrums ensured crop production and food security by adapting agricultural practices to local environments, using techniques such as crop rotation and shifting cultivation. For example, in the Sahel, in countries like Burkina Faso, Niger, and Mali, the zai pit system, is used capture rainwater to avoid degradation soil during drought. These pits enable farmers to plant and harvest crops long after the short rainfall in the region (Olaniyi, 2026). These practices are low-cost, biodiverse, and drought-resistant, and reduce adverse impacts on the environment. Similarly, healthcare systems in traditional Africa have used plant- and animal-based medicine; this broadens the possibility for engagement between traditional African knowledge and other knowledge systems in place of outright rejection and/or marginalisation.

Africa has a rich cultural heritage and diverse indigenous knowledge systems that have the potential for inspiring innovation and development in science, technology, engineering, and mathematics (STEM) fields, including artificial intelligence (AI). The state of affairs in these fields currently shows that Africa's indigenous knowledge is underrepresented as a result of Western hegemony. All that is taught and practised in these fields across Africa is a heritage of colonialism and Western imperialism. Incorporating Africa's indigenous knowledges into STEM education can change this narrative. Africa can then harness its unique cultural assets to advance AI development and build problem-solving capabilities tailored to Africa's needs that may also benefit the West and the

rest of the world. This can have multifaceted benefits (Abah et al., 2015).

AI systems that are developed using indigenous African knowledge will be better adapted to local contexts and complexities, enabling more accurate and applicable solutions that will address Africa's development quagmire. Indigenous knowledge can also inspire new approaches to the development of AI, thereby encouraging innovation and creativity. Engaging local communities in AI development will help developers ensure solutions are acceptable, usable, and beneficial to the target community.

8. KEY AREAS OF INTEGRATING INDIGENOUS KNOWLEDGE WITH AI

1. **Natural Language Processing.** AI language-processing tools can help improve communication with Africa's local populations by including local languages and dialects in the development of AI systems. Africa is linguistically diverse and is home to many languages. This linguistic diversity, however, presents challenges for the development of AI in Africa, particularly in the area of Natural Language Processing (NLP). Most AI models are trained on data from high-resource languages like English, Spanish, and Mandarin; this state of affairs marginalises languages with limited digital presence (Occhini et al., 2026). Although challenging, Africa must address this issue because integrating local languages and dialects into AI development will significantly improve NLP for Africa's benefit.
AI systems that are developed and trained on local dialects and languages will enable better translations and interpretations of concepts that are uniquely African, and will reduce errors and miscommunications. Local populations in Africa who are not proficient in dominant languages will have the opportunity to participate in the AI ecosystem, because they can use AI tools that "speak" their local language. Such integration will also help with the preservation and documentation of Africa's rich linguistic heritage (Primus, 2025).
2. **Image Recognition.** Africa faces environmental challenges traceable to human activities, including habitat destruction and climate change. Africa plays host to some of the world's most diverse and unique ecosystems, with a varied assortment of flora and fauna that are vital to the continent's ecological balance. AI systems that are trained specifically to identify local wildlife, flora and fauna in Africa can help monitor and track wildlife populations, habitats, and ecosystems, while providing valuable knowledge and information for efforts aimed at conservation. AI-enhanced image recognition of Africa's distinctive species can help identify species, including those that are rare or critically endangered. AI systems trained on Africa's local flora and fauna can improve environmental monitoring and conservation efforts to mitigate these challenges.
3. **Predictive Modelling.** Integrating indigenous African knowledge of climate patterns, soil quality, and crop yields into the development of AI systems can improve predictive models for sustainable agriculture, supporting food security, environmental safety, and effective resource management (African Wildlife Foundation, 2022).

9. CONCLUSION

Africa must, as a matter of utmost importance, participate consistently and deliberately in the global discourse on artificial intelligence (AI). Historically, Africa has been marginalised by the politics of knowledge production rooted in colonialism and the imposition of European knowledge forms. Africa must actively work to overcome this vulnerability. Intentional efforts must be put in place to express and navigate Africa's rich and varied knowledge forms, deliberately promoting and celebrating knowledge that is of African origin. Confidence that African knowledge can serve as a missing link in addressing varied human and existential challenges provides a different perspective, making it possible to negotiate the complexities of human existence. Leveraging the intrinsic processes within such knowledge could lead to a non-exploitative, non-dominant African interaction with the AI phenomenon, challenging Euro-American dominance in the future. In the face of escalating global competition in AI development, this approach to knowledge production is indispensable for asserting sovereignty over what has become a defining aspect of the complex relationship between civilisation and AI that greatly affects all aspects of human life today.

DATA AVAILABILITY

No new data were generated or analysed in this study.

COMPETING INTERESTS

The author declares that there are no known competing financial or personal interests that could have appeared to influence the work reported in this article.

FUNDING

The author received no specific funding from any public, commercial, or not-for-profit organisation for this research.

ETHICAL CONSIDERATIONS

This study did not involve human participants, animals, confidential personal information, or sensitive data. Therefore, ethical approval and informed consent were not required.

References

- Abah, J., Mashebe, P., & Denuga, D. D. (2015). Prospect of integrating African indigenous knowledge systems into the teaching of sciences in Africa. *American Journal of Educational Research*, 3(6), 668–673. <https://doi.org/10.12691/education-3-6-1>
- African Wildlife Foundation. (2022). *Defining the future of African-led conservation*. IUCN Africa Protected Areas Congress. <https://www.awf.org/apac>
- Amelung, N., Scheel, S., & van Reekum, R. (2024). Reinventing the politics of knowledge production in migration studies: Introduction to the special issue. *Journal of Ethnic and Migration Studies*, 50(9), 2163–2187. <https://doi.org/10.1080/1369183X.2024.2307766>
- Avelino, F. (2021). Theories of power and social change: Power contestations and their implications for research on social change and innovation. *Journal of Political Power*, 14(3), 425–448. <https://doi.org/10.1080/2158379X.2021.1875307>
- Binns, R. (2018). Fairness in machine learning: Lessons from political philosophy. In *Proceedings of the 1st Conference on Fairness, Accountability and Transparency* (PMLR 81, pp. 1–11). <https://proceedings.mlr.press/v81/binns18a.html>
- Dave, D. M., & Mandvikar, S. (2023). Augmented intelligence: Human–AI collaboration in the era of digital transformation. *International Journal of Engineering Applied Sciences and Technology*, 8(6), 24–33. <https://doi.org/10.33564/IJEAST.2023.v08i06.003>
- Fernández-Llamazares, Á., Lepofsky, D., Lertzman, K., Armstrong, C. G., Bronzizio, E. S., Gavin, M. C., et al. (2021). Scientists' warning to humanity on threats to indigenous and local knowledge systems. *Journal of Ethnobiology*, 41(2), 144–169. <https://doi.org/10.2993/0278-0771-41.2.144>
- Foucault, M. (1977). *Discipline and Punish: The Birth of the Prison* (A. Sheridan, Trans.). Vintage Books. https://books.google.com/books?id=pWv1R2o_PWsC
- Hlabangane, N. (2021). The underside of modern knowledge: An epistemic break from Western science. In M. Steyn, W. Mpofu, & M. S. Mpofu (Eds.), *Decolonising the Human: Reflections from Africa on Difference and Oppression* (pp. 164–185). Wits University Press. <https://doi.org/10.18772/22021036512.12>
- Hlongwane, J., Shava, G. N., Mangena, A., & Muzari, T. (2024). Towards the integration of artificial intelligence in higher education, challenges and opportunities: The African context, a case of Zimbabwe. *International Journal of Research and Innovation in Social Science*, 8(3S), 417–435. <https://doi.org/10.47772/IJRISS.2024.803028S>
- Jarrah, M. H., Askay, D., Eshraghi, A., & Smith, P. (2023). Artificial intelligence and knowledge management: A partnership between human and AI. *Business Horizons*, 66(1), 87–99. <https://doi.org/10.1016/j.bushor.2022.03.002>
- Leslie, D., & Perini, A. M. (2024). Future shock: Generative AI and the international AI policy and governance crisis. *Harvard Data Science Review*, Special Issue 5. <https://doi.org/10.1162/99608f92.88b4cc98>
- Manathunga, C. (2020). Decolonising higher education: Creating space for Southern sociologies of emergence. *Scholarship of Teaching and Learning in the South*, 4(1), 4–25. <https://doi.org/10.36615/sotls.v4i1.138>
- Mdoda, L., & Mdiya, L. (2022). Factors affecting the using information and communication technologies (ICTs) by livestock farmers in the Eastern Cape province. *Cogent Social Sciences*, 8(1), Article 2026017. <https://doi.org/10.1080/23311886.2022.2026017>
- Mousapour Mamoudan, M., Mohammadnazari, Z., Ostadi, A., & Esfahbodi, A. (2024). Food products pricing theory with application of machine learning and game theory approach. *International Journal of Production Research*, 62(15), 5489–5509. <https://doi.org/10.1080/00207543.2022.2128921>
- Oando, S., & Ilyas, M. (2024). Reimagining subjugated voice in Africa: A battle for hearts and minds in terrorism studies. *Social Sciences*, 13(6), Article 294. <https://doi.org/10.3390/socsci13060294>
- Occhini, G., Tanaka-Ishii, K., Barford, A., Tikochinski, R., Hu, S., Reichart, R., Zhou, Y., Claus, H., Petti, U., Vulić, I., Debnath, R., & Korhonen, A. (2026). Artificial intelligence is creating a new global linguistic hierarchy. *arXiv*. <https://arxiv.org/abs/2602.12018>
- Ojo, O. E. (2021). Recalibrating indigenous technology for economic development in a Globalised World: The Nigerian Experience. 6th J. A. ATANDA Lectures and Conference (pp. 1–27) Ilshishan-Remo: Babcock University. <https://www.researchgate.net/publication/362606571>
- Olaniyi, A. K. (2026). Water harvesting: The Zai pits technique: Farming in the desert's edge. <https://amb-abiodunolaniyi.com.ng/waterharvesting-the-zai-pit-technique-farming-in-the-deserts-edge/>
- O'Neil, C. (2016). *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. Crown. <https://www.penguinrandomhouse.com/books/241363/weapons-of-math-destruction-by-cathy-oneil/>
- Pophiwa, N., & Saidi, U. (2022). Approaches to embedding indigenous knowledge systems in Made in Africa Evaluations. *African Evaluation Journal*, 10(1), Article a623. <https://doi.org/10.4102/aej.v10i1.623>
- van der Vlist, F., Helmond, A., & Ferrari, F. (2024). Big AI: Cloud infrastructure dependence and the industrialisation of artificial intelligence. *Big Data & Society*, 11(1), 1–16. <https://doi.org/10.1177/20539517241232630>
- Walton, N., & Nayak, B. S. (2021). Rethinking of Marxist perspectives on big data, artificial intelligence (AI) and capitalist economic development. *Technological Forecasting and Social Change*, 166, Article 120576. <https://doi.org/10.1016/j.techfore.2021.120576>
- Primus, M. (2025). An inclusive script for the future of AI: How to teach AI models to understand the complexity of African languages. <https://www.nature.com/articles/d44148-025-00181-7>
- Widder, D. G., & Kim, N. (2025). How Big Cloud becomes Bigger: Scrutinizing Google, Microsoft, and Amazon's investments. *SSRN*. <https://doi.org/10.2139/ssrn.5377426>