

Starting the Conversation: Exploring the Meaning, Scope and Contributions of AI and Its Implications for African Psychology

Abstract

This commentary aims to open up a critical debate on the meaning, scope, and contributions of artificial intelligence (AI) with special reference to its implications for African Psychology (AP). The paper sees the potential for collaboration between AI technologies, particularly generative AI and the continued development and evolution of the emerging field of African psychology. This conversation hopes to inspire the endurance of critical discussion on the importance of AI in offering new pathways for enhancing low-cost mental health services, bridging language barriers, fostering cross-cultural understanding and improving research, particularly here in continental Africa. Ethical considerations are also explored vis-à-vis the currently unstoppable influx of AI technologies in the various ramifications of national health systems, and the economy.

Introduction

As Artificial Intelligence (AI) continues to reshape health systems and social dynamics globally, its implications for psychological theory and practice in Africa and the wider world remain underexplored. Yet Africa, in particular, stands at a critical juncture where emerging technologies like AI could significantly, if well understood and harnessed, enhance mental health service delivery across the continent by increasing access, reducing stigma, promoting primary health care, and supporting psychoeducation and early intervention. Despite these positive prospects, the prevailing insurgence of AI in Africa and the wider world raises crucial ethical, cultural and epistemological questions. Concerning African

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Keywords

*Artificial Intelligence,
African Psychology, Mental
Health in Africa, Therapy,
Learning, Ethics*

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Psychology (AP) – a field deeply rooted in the propagation of communal values, accurate promotion of indigenous knowledge systems and contextually grounded approaches to life and well-being – there is a pressing need to critically interrogate how the AI phenomenon might align or challenge these foundational principles.

This commentary seeks to open up a dialogue around the potential contributions and tensions that AI might introduce to the African continent, while critically engaging with its promises and possible risks concerning the continued growth and development of the fledgling field of AP. Regarding AP, although its core rationale, meaning, and scope remain subjects of internal debate and challenge (Katele, 2017; Nwoye, 2006, 2015a, 2015b; 2017, 2020, 2021; Long, 2016, 2017; Malherbe & Ratele, 2021), an issue beyond the scope of this paper, it is important to clarify that, for the purposes of this discussion, we adopt the specific definition and interpretation provided by Nwoye (2014). According to that definition, AP “can be taken to refer to the systematic and informed study of the complexities of human mental life, culture and experience in the pre- and post-colonial African world” (p. 57). Our rationale for adopting this definition in the context of this discussion is to show that AP is much more inclusive and complicated than the term African Indigenous Psychology (AIP), with which it is most often confused. This is because, unlike the latter (AIP), AP has both a pre- and a post-colonial reference and goes beyond attention to the study of human subjectivity, under a *one-person* paradigm. Hence, “when reference is made only to its precolonial emphasis, attention is directed merely to its indigenous psychology component which entails the systematic and holistic study of the human being and the human condition in pre-European Africa” (Nwoye, 2014, p. 57). However, when attention is focused on its post-colonial and contemporary emphases, AP embraces not only our need to take into account “the gaps and absences created by mainstream psychology’s limited understanding of the human condition and the life of the mind in Africa” (Nwoye, 2014, p. 58), “but also the task of helping the post-apartheid and contemporary African people to recognise and appreciate the triumphs and the threats, and the opportunities and dilemmas of inhabiting present-day African environments” (Nwoye, 2014, p. 58). Having said this, it is necessary to mention that part of our goal in this conversation is to present a critical discussion of the contributions and risks of the insurgence of AI in Africa in general and AP in particular.

Artificial Intelligence: Meaning, Scope, Contributions, and Threats

In the context of this conversation, the term artificial intelligence (AI) is used to refer to computational systems designed to emulate human cognitive processes, such as learning, reasoning, and problem-solving, through advanced algorithms, data analytics, and machine learning techniques (Russell & Norvig, 2021). This means that Artificial Intelligence (AI), particularly the aspect known as generative AI (e.g. accessible on platforms like ChatGPT, Perplexity Grok, Meta AI & Gemini, etc), are revolutionising

global industries by enhancing automation, creativity, and decision-making (Munnik & Noorbhai, 2024; Pandey et al., 2025).

Following this understanding, AI is already transforming many sectors of our economy, such as healthcare, where it powers diagnostic tools and personalised treatment plans (Topol, 2019) and education, where it can facilitate adaptive learning platforms and language support for diverse learners (Munnik & Noorbhai, 2024). Indeed, described in plain language, AI refers to computer systems built to think and learn like humans. Such computer systems use sophisticated machine learning models such as large language models and diffusion models that use patterns found in massive datasets to produce a range of content, including text, images and audio that use pattern programs and data to help them learn new things, make decisions, and solve problems. Again, in jargon-free terms, generative AI can be described as a type of advanced computer program that learns from huge amounts of information to create things like text, pictures, and sounds. Once more in colloquial terms, generative AI can often do one's homework or professional work, often better than the user could and/or teach the user new skills such as computer coding.

Now, while the rapid rise of AI tends to present an exciting prospect to Africa and the global world, many have been eager to point out some of the potential shortfalls and risks it might pose. Thus, even the internationally famous inventor and businessman, Elon Musk, the owner of xAI (i.e., Grok), has famously warned in the earlier days of AI that we could be potentially summoning a demon we cannot control (Bloomberg, 2024). What can be verified is that there are potential ethical risks in terms of algorithmic bias and present real data privacy concerns (Obermeyer et al., 2019).

The potential risks of AI include ethical concerns such as biases in algorithms (Rozado, 2023; Aldoseri et al., 2023), ownership and authorship issues of AI-generated content (Stanford University, 2023) and the propagation of errors or misinformation (Alkaissi & McFarlane, 2023; Munnik & Noorbhai, 2024). Additionally, some fear that AI may lead to job displacement, exacerbate economic inequality, and pose challenges to education, such as increased plagiarism and reduced development of critical thinking skills among students and scholars (Munnik & Noorbhai, 2024).

Despite these challenges, AI does offer many potential benefits to AI power users, including revolutionising teaching and learning, enhancing research efficiency, and providing new insights by detecting patterns in data (Chen et al, 2023; Regorz Statistik, 2023; Munnik & Noorbhai, 2024). In general psychology, AI is being tested to aid in mental well-being promotion through conversational bots and personalised treatment plans while also demonstrating the potential to enhance both sports performance and industrial psychology (Deloitte Insights, 2023; Ly et al., 2017; Noorbhai, 2022; Munnik & Noorbhai, 2024).

As the African continent braces to navigate the challenges and opportunities of the digital age, the integration of AI into various aspects of society will inevitably have profound implications for the continued evolution and development of the emerging discipline of Africa.

With the potential benefits and risks of AI in mind, one may then ask what the implications of AI are for Africa in general, and AP in particular.

Implications of Artificial Intelligence for African Psychology

Commenting on this issue, one could argue that AI holds the potential to amplify African voices and narratives within the discipline of AP. At the same time, it raises serious concerns around data privacy, algorithmic bias, misinformation, and cultural appropriation. This duality highlights the urgent need for critical engagement with AI technologies to ensure they are aligned with African values, ethics, and aspirations, while also serving as tools to challenge entrenched power dynamics and systemic inequalities.

African Psychology Education and AI

In the education of students in AP, the integration of AI stands as a possible transformative tool for non-English first-language students, offering a gateway to enhanced understanding and academic success. Generative AI models can play a pivotal role in empowering students to navigate the complexities of psychology through a linguistic lens. By leveraging AI-driven language support tools, non-first-language AP students can bridge communication gaps, grasp intricate psychological concepts, and express their insights with clarity and precision (Munnik & Noorbhai, 2024). This symbiotic relationship between AI and students will not only foster academic growth but could also nurture a deeper appreciation for the nuances of AP, where cultural diversity and linguistic richness intersect to shape unique perspectives on human behaviour and mental processes.

Through AI-guided learning experiences, particularly with the assistance of platforms like ChatGPT and Grok, African students can delve into the intricacies of African psychological frameworks, exploring indigenous and contemporary knowledge systems and cross-cultural practices that enrich their academic journey. Through the application of generative AI for purposes of harnessing AI to refine their language skills, students can articulate their thoughts effectively, engage with psychological theories in a meaningful way, and ultimately elevate their academic performance. Similarly, when students from more Western backgrounds study AP, the integration of AI in AP education can help them cultivate a deeper understanding of the discipline's cultural underpinnings, fostering a new generation of scholars who embrace diversity, linguistic richness, and cultural nuances in their pursuit of psychological knowledge. For all these to be possible, scholars of AP must ensure that whatever they publish about African mindsets is correct

and accurate information is disseminated in internationally respected journals and publishing houses where generative AI platforms would have can have access to them. In this age of the AI revolution, the public image of Africa is shaped by the commitment and readiness of AP scholars to produce high-quality publications about Africa and its people for a global audience.

African Psychology, Social Science Research, and AI

In the emerging field of AP, the transformative potential of AI as a powerful tool for conducting research and shaping theoretical frameworks is evident (Munnik & Noorbhai, 2024). By harnessing AI technologies, such as ChatGPT, AP researchers can delve into complex AP topics with unprecedented depth and efficiency, uncovering hidden patterns and generating novel insights that illuminate the intricacies of psychological phenomena within diverse African contexts. Through AI-driven data analysis and machine learning algorithms, AP researchers can navigate vast datasets, identify correlations, and extract meaningful trends that inform theoretical constructs unique to AP. This fusion of AI and AP will not only accelerate the research process but also enrich theoretical frameworks by integrating cultural nuances, indigenous perspectives, and contextual factors that shape psychological phenomena in Africa (Munnik & Noorbhai, 2024). By embracing AI as a research ally, AP scholars can transcend traditional boundaries imposed by linguistic divides across Africa, explore interdisciplinary connections, and advance the frontiers of AP; thereby paving the way for a more nuanced understanding of human behaviour, mental health, and well-being within the rich tapestry of African cultures and societies.

AI and Mental Health Services in Africa

One area where AI holds significant promise is in mental health services. The scarcity of mental health professionals in many African countries has led to a substantial treatment gap. We believe that AI-powered mental health applications and chatbots have the potential to bridge this gap by providing accessible and affordable mental health support. These technologies can offer immediate assistance, facilitate early detection of mental health issues, and support psychoeducation and ongoing management of mental health conditions. However, care must be taken to consider issues of cultural relevance and privacy when implementing such technologies. It is essential that AI interventions are tailored to align with local cultural contexts, incorporating indigenous knowledge and practices. Moreover, robust measures must be taken to ensure the confidentiality and security of users' personal information, thereby fostering trust and acceptance among African communities (Munnik & Noorbhai, 2024).

Also, from an AP perspective, the application of AI in African mental health practice faces challenges due to the deeply spiritual and communal nature of African traditional healing practices, which rely on personal intuition, ancestral guidance, and spiritual insight—elements that AI cannot replicate. AI's data-driven approach may also struggle

to capture the holistic understanding of mental health rooted in African spirituality. To address these limitations, AI healing platforms need to be carefully designed to support, not replace, the processes and procedures of traditional healing in the African context. This can be achieved by involving traditional healers and African psychologists in the development of AI tools to ensure cultural and spiritual sensitivity. AI could automate administrative tasks, allowing healers to focus on their spiritual roles while respecting African beliefs and practices to balance technological innovation with cultural preservation.

Through thoughtful integration and culturally sensitive implementation, AI can play a transformative role in enhancing mental health services across the continent (Munnik & Noorbhai, 2024).

AI-Assisted Psychotherapy in African Contexts

AI as a psychotherapy tool has already been tested in non-African countries (Munnik & Noorbhai, 2024). These tools could also be a potential resource for mental health professionals in Africa. They can help African therapists and counsellors provide evidence-based interventions, track progress, and even reach remote or underserved populations. However, the integration of AI in therapy should be approached with sufficient sensitivity to cultural norms and values, particularly concerning the principle of Ubuntu. Ubuntu, a Nguni Bantu term, emphasises the interconnectedness of humanity, encapsulated in the phrase made popular by Mbiti (1969), “I am because we are, since we are; therefore, I am” (p. 215). This philosophy underscores the importance of communal relationships, empathy, and mutual care. In implementing AI-assisted therapy, it is crucial that these technologies honour the spirit of Ubuntu by fostering human connection and collaboration, rather than isolating individuals (Nwoye, 2022; Mkhize, 2004; Baloyi, 2020).

Furthermore, ethical concerns related to patient data and autonomy must be rigorously addressed to ensure confidentiality, trust, and respect for individual rights. By aligning AI tools with the values of Ubuntu (Tutu, 2004) and addressing ethical considerations, we can enhance the effectiveness and acceptability of AI-assisted therapy in African contexts. As AI becomes increasingly integrated into AP, ethical considerations take on growing importance. Ensuring that AI-generated therapy respects the cultural integrity and diversity of clients is essential. The software architects and engineers who design and maintain AI platforms may not be familiar with traditional African cultures. Therefore, the diverse cultural landscapes across Africa necessitate the development of AI systems that are both effective and culturally sensitive. This involves designing AI therapeutic tools that incorporate local languages, practices, and norms to ensure their relevance and acceptance within various African communities. Avoiding the reinforcement of potential Western biases against Africans is another critical ethical

concern. AI systems need to be carefully designed to prevent the perpetuation of stereotypes or discrimination, which involves training AI algorithms on diverse datasets that reflect the richness and uniqueness of African populations, as well as continuously monitoring and refining these systems to address any emergent biases.

Furthermore, upholding privacy rights is crucial in fostering trust in AI-driven mental health services in the African context. Robust data protection measures need to be implemented to safeguard personal information and ensure confidentiality. Open-access AI platforms present a risk to anonymity and confidentiality because some software development firms forbid their employees from using generative AI, as these platforms tend to retain information, presenting a risk to intellectual property rights (Munnik & Noorbhai, 2024). This is particularly important given the sensitive nature of mental health data and the potential for misuse or unauthorised access. Ethical guidelines for the development and deployment of AI in mental health and therapy should be established and rigorously followed. In an AP context, these guidelines should be informed by the principles of Ubuntu, emphasising community, empathy, and respect for human dignity. Engaging with local stakeholders, including specialists in AP, mental health professionals, community leaders, and patients, is essential in creating guidelines that are contextually relevant and ethically sound. Furthermore, implementing strong encryption, anonymisation techniques, and secure data storage solutions would be recommended (Mackenzie et al., 2011; Munnik & Noorbhai, 2024). In this regard, we propose regular audits and compliance checks to ensure data security. By addressing these ethical considerations with a comprehensive and culturally attuned approach, we can harness the potential of AI to enhance mental health services in Africa while safeguarding the rights and well-being of individuals and communities.

Final Thoughts

In this commentary, we emphasise that the integration of AI in AP must try to respect the diverse cultural landscapes and indigenous knowledge systems that define the continent. AI technologies should be designed with sufficient care and caution to incorporate local languages, practices, and norms, ensuring their relevance and acceptance within various communities. This approach will not only enhance the effectiveness of AI tools but also promote their ethical use, preventing the reinforcement of existing Eurocentric biases and stereotypes.

Equitable access to AI-driven mental health resources is another issue for critical consideration. Many African countries face significant disparities in technological infrastructure and healthcare access. It is imperative to address these gaps to ensure that the benefits of AI are distributed fairly and do not exacerbate existing inequalities. This involves investing in infrastructure, professional training, and education to empower local communities and healthcare providers to utilise AI technologies effectively.

As AI continues to evolve, African psychologists, researchers, and policymakers must engage in thoughtful dialogue and collaboration to ensure that AI-driven innovations serve the well-being of the continent's diverse populations. This collaborative effort should include interdisciplinary research, community engagement, and the establishment of ethical guidelines tailored to the African context.

Furthermore, safeguarding privacy and data security is essential in building trust and ensuring the ethical deployment of AI in mental health services in continental Africa. Robust data protection measures must be implemented to protect users' personal information and uphold their autonomy. This angle might be easier said than done, but it points to an area of challenge in which effort must be made and caution exercised to ensure a successful outcome.

In the context of African mental health theory and practice, a biopsychosocial-spiritual framework is essential, as the traditional African mental health process is deeply embedded in a worldview that emphasises the interconnectedness of the physical and spiritual realms, the world of the living and those of the ancestors, and the individual and the community (Nwoye, 2006, 2022). As highlighted earlier, African ancestors are believed to offer guidance and protection, and their absence or displeasure is often linked to mental health challenges. In this context, traditional healers play a crucial role as intermediaries or hermeneuts between the spiritual and physical realms, diagnosing and treating mental health issues by addressing spiritual imbalances. In particular, recognising that mental well-being cannot be separated from spiritual and cultural realities is vital for the effective integration of AI in mental health services in Africa.

With this said, we can then conclude that the potential of AI to revolutionise AP is immense. By integrating technological advancements with cultural sensitivity, ethical considerations, and equitable access, we can create a future where AI enhances mental health services and research in the African context while honouring the rich heritage and unique needs of African communities. In this regard, African Psychologists are expected to ensure that the AI-driven innovations they adopt must have the outcome of contributing positively to the holistic well-being and resilience of the continent.

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