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POTENTIAL ROLE OF AFRICAN UNION IN DEVELOPMENT OF AI GOVERNANCE ACROSS THE CONTINENT

Joy Wanjiku Njoroge[i]
Lawyer and IT Law Specialist,
Kenya

Abstract:
This study addressed the fragmentation of AI governance approaches across Africa and examined the African Union's (AU) potential role in unifying these efforts. Using qualitative document analysis of AU publications and academic literature, the research explored the AU's continental AI governance approach, key initiatives, challenges, and future directions. Findings revealed that the AU made significant progress through initiatives such as the Continental AI Strategy (2024), the African Research Centre for Artificial Intelligence (ARCAI), the African Digital Compact, and the AU Data Policy Framework. However, challenges persisted, including regulatory fragmentation among member states and infrastructure disparities. The study discussed the AU's proposed governance mechanisms, including a high-level coordination mechanism on AI and adaptable regulation models, while noting threats from rapid global AI development and widening digital divides. It concluded that the AU's success in AI governance hinged on balancing innovation with ethics, addressing Africa-specific challenges, and fostering collaboration. Key recommendations included accelerating model AI regulation development, prioritizing digital infrastructure initiatives, enhancing ARCAI's role in building local expertise, and strengthening Africa's voice in global AI governance. This research contributes to the literature on AI governance in Africa, offering insights for policymakers on developing uniquely African approaches to inform global discussions.

Keywords: AI, AI governance, AI strategies

1. Introduction

Artificial Intelligence (AI) has emerged as a transformative technology with far-reaching implications across various sectors of society. Defined as systems that perform tasks typically associated with intelligent beings, AI encompasses the abilities to learn, reason, solve problems, perceive, and use language (Nieminen *et al.*, 2019). The rapid evolution and adoption of AI technologies have sparked both excitement about their potential

[i] Correspondence: email wanjikujoy1997@gmail.com

benefits and concerns regarding their ethical and societal implications. As AI continues to advance, its impact on economies, social structures, and daily life becomes increasingly profound, necessitating robust governance frameworks to ensure its responsible development and deployment.

In the context of Africa, AI offers exciting possibilities for addressing pressing societal challenges. These include poverty alleviation, reduction of economic inequalities, and improved access to public and private services in sectors such as healthcare, transportation, and education (Eke *et al.*, 2023). As a critical element of the Fourth Industrial Revolution, AI has the potential to drive large-scale transformation and enhance the continent's competitiveness on the global stage (Eke *et al.*, 2023). AI applications in Africa span various sectors, including healthcare, where it is being used for automated diagnostics, forecasts, and prognostics, as well as for detecting eye diseases and authenticating drugs; education, for personalized learning experiences and educational resource management; and financial services, for reviewing online loan applications, creating digital identities for underserved communities, and enhancing fraud detection systems (Eke *et al.*, 2023).

However, the rapid adoption of AI technologies across various sectors in African countries has significantly outpaced the development of comprehensive regulatory frameworks (Mensah *et al.*, 2023). This disparity underscores the pressing need for AI governance, which involves the implementation of structures and processes to ensure AI systems adhere to ethical principles and societal values (Addy *et al.*, 2023). The scope of AI governance is broad, encompassing various aspects, including data protection, algorithmic transparency, accountability, and the mitigation of potential negative impacts on society (Stahl *et al.*, 2023). As AI increasingly impacts many aspects of life, it raises fundamental questions about fairness, human rights, privacy, bias, security, and the future of work that need to be addressed through robust governance mechanisms (Eke *et al.*, 2023).

Across the African continent, the current state of AI governance is characterized by varying levels of progress and a general lack of cohesive, comprehensive frameworks. While some nations have taken steps towards developing AI strategies and policies, the overall landscape remains largely underdeveloped compared to other regions globally (Stahl *et al.*, 2023). Several African countries, including Mauritius, Egypt, Zambia, Tunisia, and Botswana, have recognized the potential of AI and have begun to develop national AI strategies (Okolo *et al.*, 2023). Additionally, countries like South Africa, Nigeria, and Kenya have passed data protection laws, which, while not AI-specific, have implications for AI governance (Okolo *et al.*, 2023). However, these efforts often exist in isolation, lacking the coordination and comprehensiveness needed to address the complex challenges posed by AI technologies effectively.

The fragmentation of AI governance approaches across Africa is a significant concern. Many countries on the continent are grappling with scattered regulations and policies that fail to provide a unified framework for AI development and deployment. This fragmentation results in significant gaps, overlaps, and inconsistencies in the governance of AI technologies across different sectors and jurisdictions (Mensah *et al.*,

2023). The lack of a cohesive approach creates substantial difficulties in effectively addressing the unique risks and challenges posed by AI technologies, including issues such as inconsistent application of rules, inadequate protection of public interests, and the potential for misuse or abuse of AI systems. Furthermore, this fragmentation hinders the continent's ability to harness the full potential of AI for socio-economic development while ensuring ethical and responsible deployment of these technologies.

In contrast to the fragmented approach observed across Africa, the European Union has taken significant steps towards creating a unified and comprehensive AI governance framework through the development of the EU AI Act. The AI Act, proposed by the European Commission in April 2021, represents a landmark in AI regulation and governance. It aims to address the risks associated with specific uses of AI through a set of harmonized rules (Gasser, 2023).

The EU AI Act adopts a risk-based approach, categorizing AI systems based on their potential impact on society. It defines four risk categories: unacceptable risk, high risk, limited risk, and minimal risk. AI systems deemed to pose unacceptable risks, such as those involving social scoring by governments, are prohibited. High-risk AI systems, including those used in critical infrastructure, education, or law enforcement, are subject to strict obligations before they can be put on the market. These obligations include the use of high-quality datasets, establishing appropriate data governance measures, providing detailed documentation, ensuring human oversight, and maintaining high levels of accuracy, robustness, and cybersecurity (Gasser, 2023).

For AI systems classified as limited risk, such as chatbots, the Act requires transparency measures to ensure users are aware they are interacting with a machine. Minimal risk AI systems, which represent the majority of AI applications, are not subject to additional legal obligations, but developers are encouraged to adhere to voluntary codes of conduct (Gasser, 2023).

The EU AI Act also establishes a governance structure for its implementation and enforcement. This includes the creation of a European Artificial Intelligence Board to facilitate cooperation between national supervisory authorities and the Commission. Additionally, the Act proposes significant penalties for non-compliance, with fines of up to €30 million or 6% of global annual turnover, whichever is higher (Gasser, 2023).

Importantly, the EU AI Act has potential extraterritorial effects, as it applies to providers placing AI systems on the EU market or putting them into service in the EU, regardless of whether these providers are established within or outside the EU. This global reach could significantly influence AI development and governance practices worldwide, similar to the impact of the General Data Protection Regulation (GDPR) on data protection practices globally (Gasser, 2023).

The comprehensive and cohesive approach of the EU AI Act stands in stark contrast to the fragmented landscape of AI governance in Africa. While the EU's approach may not be directly applicable to the African context due to unique socio-economic conditions, cultural factors, and developmental priorities, it provides valuable insights into the potential benefits of a unified, risk-based approach to AI governance.

At the continental level, the African Union (AU) has recognized the importance of AI governance and has taken initial steps towards a more coordinated approach. In 2019, the AU established a Task Force mandating member states to create a working group on Artificial Intelligence. The objectives of this working group include studying the creation of a common African stance on AI, developing an Africa-wide capacity-building framework, and establishing an AI think tank to assess and recommend projects in line with Agenda 2063 and the UN Sustainable Development Goals (Okolo *et al.*, 2023). While this initiative represents a step towards a more coordinated approach to AI governance across the continent, significant work remains to be done to translate these high-level objectives into concrete, implementable policies and regulatory frameworks.

2. Statement of Problem

The rapid advancement of Artificial Intelligence (AI) has necessitated robust governance frameworks globally to ensure responsible development and deployment (Nieminen *et al.*, 2019). While regions like the European Union have made significant strides in AI governance, exemplified by the EU AI Act (Gasser, 2023), Africa lacks a cohesive continental approach, with governance efforts often fragmented across different countries and sectors (Mensah *et al.*, 2023). The EU's progress includes a comprehensive, risk-based framework and the establishment of a European Artificial Intelligence Board, demonstrating the potential of unified continental governance (Stix, 2021). In contrast, Africa's initiatives, such as national AI strategies in countries like Mauritius and Egypt, often exist in isolation (Okolo *et al.*, 2023). Existing literature has explored various aspects of AI governance: Hickman and Petrin (2021) examined the EU's Ethics Guidelines for Trustworthy AI from a company law perspective; Larsson (2021) analyzed the historical development of EU AI policy; Zhang and Dafoe (2020) investigated U.S. public opinion on AI governance; and Daly *et al.* (2021) conducted a comparative analysis of global AI governance approaches. However, there remains a significant gap in research regarding the potential role of the African Union (AU) in unifying AI governance across the continent. This study sought to examine the AU's approach to continental AI governance, exploring key initiatives, challenges, and future directions through qualitative document analysis of AU publications and academic literature.

3. Literature Review

In recent years, research has been examining artificial intelligence (AI) governance approaches across various jurisdictions. This literature review synthesizes findings from six key studies, emphasizing their methodologies and findings, while also noting critiques and research gaps, particularly regarding the potential role of the African Union in unifying AI governance across the continent.

Hickman and Petrin (2021) employed a qualitative document analysis methodology, focusing on the EU's Ethics Guidelines for Trustworthy AI from a company law perspective. Their approach involved a detailed comparative analysis

between the AI guidelines and existing company law principles. The study targeted EU policymakers and corporate governance experts, relying on policy documents and legal texts without primary data collection. Their findings revealed that the EU emphasizes trustworthy, human-centric AI with seven key requirements: human agency and oversight, technical robustness and safety, privacy and data governance, transparency, diversity and non-discrimination, societal and environmental well-being, and accountability. The authors found that while the EU proposed non-binding ethical guidelines, the development of the AI Act signaled a move towards more formal regulation. They identified specific challenges in integrating AI ethics into corporate governance structures, noting tensions between stakeholder-oriented approaches promoted by the guidelines and traditional shareholder primacy models in some jurisdictions.

Larsson (2021) utilized a policy analysis methodology, conducting a historical review of EU AI policy development and a comparative analysis of different EU institutions' approaches. The study targeted EU policymakers and AI ethics researchers, basing its analysis on official EU documents and communications without primary data collection. Larsson's findings highlighted the EU's self-positioning as a leader in ethical AI governance, evidenced by the development of the Ethics Guidelines for Trustworthy AI and the establishment of the High-Level Expert Group on AI (AI HLEG). The study documented the EU's proposal for the AI Act, representing a shift towards a legally binding framework. Larsson identified key challenges in the EU's approach, including the need to balance regulation with innovation and the practical implementation of ethical principles in diverse contexts across member states.

Robles and Mallinson (2023) conducted a comparative analysis of AI governance approaches in major jurisdictions, employing a methodology that involved reviewing policy documents and legislative proposals across countries. Their study targeted global policymakers and AI governance researchers, relying on published policies and academic literature without primary data collection. Their findings indicated that AI governance is most developed in China and the EU, with the United States catching up rapidly. They observed a trend towards legally enforceable outcomes in recent initiatives across these jurisdictions. Specifically, they found that China had implemented various ethical guidelines and principles, the EU had proposed the comprehensive AI Act, and the US had issued an Executive Order on Maintaining American Leadership in AI. The authors identified key challenges across jurisdictions, including balancing innovation with regulation, ensuring AI safety, and addressing issues of algorithmic bias and transparency.

Stix (2021) employed a historical and policy analysis methodology, focusing on EU AI governance. The study involved a comprehensive review of EU policy documents and communications, analyzing the roles of various EU institutions in shaping AI policy. Targeting EU policymakers and AI governance researchers, Stix based the analysis on official EU documents and academic literature without primary data collection. The findings positioned the EU's approach as a "third way" between US and Chinese models, emphasizing trustworthy and human-centric AI. Stix documented the EU's development

of a comprehensive AI ecosystem, including the implementation of Ethics Guidelines for Trustworthy AI and the proposal for the AI Act. The study identified key challenges in the EU's approach, including achieving digital sovereignty while balancing ethical considerations with innovation needs.

Zhang and Dafoe (2020) utilized a quantitative methodology, conducting a large-scale survey (N=2000) of US public opinion on AI governance. They employed YouGov's sample matching methodology to ensure a representative sample of US adults. Their findings, based on a statistical analysis of survey responses, revealed that Americans consider various AI governance challenges important, with particular concern for AI's impact on privacy, fairness, and safety. Notably, they found low to moderate trust in institutions to manage AI effectively, with respondents expressing more confidence in university researchers and the US military compared to tech companies or government agencies. Interestingly, their analysis showed that support for developing AI was not predicted by trust in institutions, suggesting a complex relationship between public trust and attitudes towards AI development.

Daly *et al.* (2021) employed a comparative analysis methodology, examining AI governance approaches across multiple countries and regions. Their approach involved a comprehensive review of policy documents and academic literature, targeting global policymakers and AI ethics researchers. The study's findings indicated varied approaches to AI governance globally, with a discernible trend towards the development of ethical guidelines. They observed an increasing focus on legally binding measures in some jurisdictions, noting a spectrum of implementations ranging from voluntary principles in Australia to proposed regulations in the EU. The authors identified key challenges across different governance approaches, including balancing innovation with ethical concerns, addressing AI bias, and ensuring AI aligns with societal values.

In conclusion, these studies collectively provide a comprehensive overview of current AI governance approaches, emphasizing the dominance of ethical guidelines and the emerging trend towards more binding regulatory frameworks, particularly in the EU. However, a significant research gap persists regarding the potential role of the African Union in unifying AI governance across the African continent. Future research should explore how global governance models could be adapted to African contexts, how the African Union could facilitate regional collaboration on AI policy, and how to address the unique challenges and opportunities for AI governance in Africa.

4. Research Methods

This study employed qualitative document analysis to examine the African Union's approach to AI governance. Relevant documents published up to September 2024, including official AU publications, policy papers, and academic literature, were collected and analyzed. The analysis combined content analysis and thematic analysis to identify key themes and patterns in AI governance approaches. A comparative analysis was also conducted to contextualize the AU's efforts within global AI governance practices. Document analysis was chosen for its established efficacy in examining organizational

and institutional documents (Bowen, 2009; Tight, 2019). To ensure validity and reliability, triangulation was employed using multiple sources, and an audit trail was maintained (Creswell & Creswell, 2018; Yin, 2018). The methodology allowed for a systematic examination of the AU's AI governance initiatives, including the Continental AI Strategy and related policies. Ethical considerations included proper attribution and contextual interpretation of documents. This approach facilitated the identification of strengths, weaknesses, opportunities, and threats in the AU's AI governance framework, as presented in the results and discussion sections.

5. Results

5.1 African Union's Approach to Continental AI Governance

The African Union (AU) has recognized the need for a coordinated approach to Artificial Intelligence (AI) governance across the continent, as evidenced by the development of the Continental AI Strategy. This strategy, as reported by the African Union (2024a, 2024b, 2024d), was endorsed by the African Union Executive Council during its 45th Ordinary Session held on 18th – 19th July 2024, in Accra, Ghana, marking a significant milestone in Africa's approach to AI governance. According to the African Union (2024a), the strategy aims to "*provide guidance to African countries to harness artificial intelligence to meet Africa's development aspirations and the well-being of its people, while promoting ethical use, minimizing potential risks, and leveraging opportunities*." The African Union (2024b) notes that the strategy puts forward an Africa-centric, development-oriented and inclusive approach around five focus areas: harnessing AI's benefits, building AI capabilities, minimizing risks, stimulating investment, and fostering cooperation. By setting out a common vision for the Continent and identifying key policy interventions, the strategy enables the continent to harness the potential of AI while addressing the societal, ethical, security and legal challenges associated with AI-driven transformations (African Union, 2024a, 2024b, 2024d).

5.2 Key AU Initiatives for Continental AI Governance

The Continental AI Strategy is complemented by several other AU initiatives aimed at strengthening AI governance at the continental level. A key initiative, as highlighted by the African Union (2024d), is the African Digital Compact, endorsed alongside the Continental AI Strategy in July 2024. This compact, according to the African Union (2024a, 2024d), represents Africa's common vision and unified voice for charting Africa's digital future. It aims to harness the transformative potential of digital technologies, including AI, to foster sustainable development, economic growth, and societal well-being throughout Africa. The African Union (2024d) states that the African Digital Compact is designed to "*position Africa at the forefront of the global digital economy, not just as a consumer but also as an innovator and producer*." It emphasizes the importance of creating strong pools of talent and enhancing public-private partnerships to promote homegrown digital solutions. The compact also calls for the development of national and regional forums to foster public and private dialogue around Digital Financial policy and

regulation, recognizing the continuous evolution and innovation in the sector (African Union, 2024d; African Union, 2022).

Recognizing the crucial link between data governance and AI governance, the AU has developed the AU Data Policy Framework. This framework, as reported by the African Union (2022) and referenced in the Continental AI Strategy (African Union, 2024b), was endorsed by the AU Executive Council in February 2022 and aims to strengthen and harmonize data governance frameworks across Africa. The African Union (2022) notes that it creates a shared data space and standards that regulate the intensifying production and use of data across the continent. The framework provides a common vision, principles, strategic priorities and key recommendations to guide African countries in developing their national data systems and capabilities to effectively use and derive value from data, including for AI development. It addresses critical issues such as data sovereignty, cross-border data flows, and the potential for AI to exacerbate existing socio-economic inequalities. The African Union (2022) and African Union (2024b) both emphasize that the framework encourages African countries to develop their own model of innovation, avoiding the reproduction of models that, although successful elsewhere, may not adhere to the socio-economic realities of the African continent.

Another significant initiative in the realm of continental AI governance, as highlighted by the African Union (2024b) and mentioned in the African Union (2024a, 2024d), is the establishment of the African Research Centre for Artificial Intelligence (ARCAI) in the Republic of Congo in 2022. The African Union (2024b) states that ARCAI's main objectives are to "*provide technical training and skills, foster job creation, bridge the digital divide, promote inclusive economic growth and ensure Africa's sovereignty over modern digital tools*." While primarily focused on research and skills development, ARCAI's work is expected to inform AI governance policies by providing technical expertise and insights into AI development on the continent. The centre aims to build capacity in various aspects of AI, including machine learning, data science, and AI ethics, which are crucial for developing effective AI governance frameworks. By fostering a pool of AI experts within Africa, ARCAI contributes to the continent's ability to develop contextually appropriate AI governance structures (African Union, 2024b; African Union, 2024a; African Union, 2024d).

5.3 Challenges in Implementing Continental AI Governance

Despite these initiatives, the AU faces several challenges in implementing a cohesive continental approach to AI governance. The Continental AI Strategy (African Union, 2024b) acknowledges that the rapid adoption of AI technologies across various sectors in African countries has significantly outpaced the development of comprehensive regulatory frameworks. This disparity, also noted in the African Union (2024a) and African Union (2024d), underscores the pressing need for AI governance structures at the continental level. The strategy notes the fragmentation of AI governance approaches across the continent, with laws and regulations governing AI often scattered across different sectors and jurisdictions. This fragmentation, as highlighted by the African Union (2024b) and corroborated by the African Union (2022), creates substantial

difficulties in effectively addressing the unique risks and challenges posed by AI technologies, including inconsistent application of rules, inadequate protection of public interests, and potential misuse of AI systems. The lack of a unified approach also hinders the continent's ability to fully leverage the benefits of AI while mitigating its risks (African Union, 2024b; African Union, 2024a; African Union, 2024d; African Union, 2022). Infrastructure deficits present another major challenge to continental AI governance. The Digital Transformation Strategy for Africa 2020-2030 (African Union, 2020), referenced in the Continental AI Strategy (African Union, 2024b), notes the lack of widespread availability of high-speed internet and the need for massive scaling-up of investment in digital infrastructure. These infrastructure gaps, as pointed out by the African Union (2020, 2022, 2024b), not only hinder AI adoption but also make it difficult to implement and enforce governance measures uniformly across the continent. The strategy highlights that nearly 300 million Africans live more than 50 km from a fibre or cable broadband connection, making it challenging to implement continent-wide AI governance structures that rely on robust digital infrastructure. Additionally, the strategy notes the need for significant investment in data infrastructure, including data centres and cloud services, which are crucial for AI development and governance (African Union, 2020; African Union, 2024b). The AU Data Policy Framework (African Union, 2022) further highlights challenges such as lack of institutional capacity, ineffectively regulated competition amongst service providers, and low levels of coverage, affordability and quality of broadband connectivity. These issues, as emphasized by both the African Union (2022) and African Union (2024b), directly impact the ability to implement effective AI governance structures across the continent.

5.4 Progress and Future Directions for Continental AI Governance

Despite the challenges, the AU has made progress in laying the groundwork for continental AI governance. The adoption of the Continental AI Strategy in 2024, as reported by the African Union (2024a, 2024b, 2024d), marks a significant step towards a coordinated approach to AI governance across Africa. This strategy provides a common framework that countries can adapt to their specific contexts while maintaining alignment with continental objectives. The strategy, as detailed in the African Union (2024b) and referenced in the African Union (2024a, 2024d), calls for the development of flexible and adaptable AI regulation and legislation models by drawing on global and regional experiences, which Member States can adapt to their settings and needs. It also recommends the establishment of a high-level coordination mechanism on AI, where the AU Commission will have an oversight and coordinating role and bring together representatives from Member States, Regional Economic Communities and AU organs to strengthen Africa's participation in Global AI debates, foster international cooperation and promote collective action on AI (African Union, 2024b; African Union, 2024a; African Union, 2024d).

Looking forward, the Continental AI Strategy emphasizes the need for continued efforts to harmonize AI governance approaches across the continent. It calls for the development of an Implementation Plan that takes into consideration the digital

sovereignty of states as well as the different levels of development, vulnerability of populations and digitization within AU Member States (African Union, 2024b). This acknowledgment, also reflected in the African Union (2022) and African Union (2024d), highlights the need for a flexible approach that can accommodate the diverse contexts across the continent while still working towards a cohesive continental framework for AI governance. The strategy also emphasizes the importance of building capacity in AI governance, promoting research and innovation in AI, and fostering partnerships between academia, industry, and government to drive AI development and governance. Furthermore, it calls for increased collaboration between countries, more robust mechanisms for sharing best practices and resources, and the alignment of AI governance with broader digital transformation efforts (African Union, 2024b; African Union, 2024a; African Union, 2024d; African Union, 2022; African Union, 2020).

6. Discussions

The African Union (AU) has demonstrated significant strengths in its approach to AI governance, primarily through the development of the Continental AI Strategy in 2024 (African Union, 2024b). This strategy provides a unified framework for AI governance across Africa, focusing on harnessing AI's benefits, building capabilities, minimizing risks, stimulating investment, and fostering cooperation (African Union, 2024a, 2024b, 2024d). This approach aligns with global best practices, such as the EU's emphasis on balancing innovation with ethical considerations (Larsson, 2021; Hickman & Petrin, 2021). The AU's recognition of data governance importance, evidenced by the AU Data Policy Framework (African Union, 2022), addresses critical issues like data sovereignty and cross-border data flows, which Eke *et al.* (2023) and Dignum (2023) identify as crucial for responsible AI development. The establishment of the African Research Centre for Artificial Intelligence (ARCAI) in 2022 (African Union, 2024b) further strengthens the AU's position by contributing to building local AI expertise, a strategy that Stix (2021) and Okolo *et al.* (2023) note as essential for developing context-appropriate AI governance structures.

Despite these strengths, the AU faces several weaknesses in its AI governance approach. A primary weakness is the fragmentation of AI governance across the continent, with scattered laws and regulations (African Union, 2024b; Mensah *et al.*, 2023). This fragmentation, also observed in other regions (Robles & Mallinson, 2023), hinders effective governance and consistent rule application. The rapid adoption of AI technologies outpacing regulatory development presents another challenge, similar to the "*pacing problem*" noted globally by Gasser (2023) and Nieminen *et al.* (2019). Infrastructure deficits, including limited high-speed internet availability, further complicate the implementation of unified AI governance approaches (African Union, 2020; Okolo *et al.*, 2023). These challenges are particularly acute compared to regions like the EU, where more developed digital infrastructure facilitates cohesive governance frameworks (Stix, 2021; Mäntymäki *et al.*, 2023). The digital divide within and between African countries, highlighted by Eke *et al.* (2023) and Ruttkamp-Bloem (2023),

exacerbates these weaknesses, potentially hindering equitable AI development and governance across the continent.

The Continental AI Strategy presents significant opportunities for the AU to position Africa as a leader in responsible AI development and governance. The strategy's call for flexible and adaptable AI regulation models (African Union, 2024b) aligns with recommendations for developing context-specific, epistemically just AI ethics frameworks (Ruttkamp-Bloem, 2023; Kwanya, 2023). The proposed high-level coordination mechanism on AI offers an opportunity to strengthen Africa's participation in global AI debates, addressing concerns about African agency in global governance discussions raised by Eke *et al.* (2023) and Stahl *et al.* (2023). The African Digital Compact (African Union, 2024d) presents an opportunity to integrate AI governance into broader digital transformation efforts, similar to the EU's approach (Stix, 2021; Larsson, 2021). These initiatives, along with ARCAI's work, could position Africa to develop unique, context-specific approaches to AI governance that address local challenges while contributing valuable insights to the global community, as advocated by Dignum (2023) and Addy *et al.* (2023).

Several threats could undermine the AU's AI governance efforts. The rapid pace of global AI development challenges the AU's ability to maintain relevant and effective governance frameworks (Robles & Mallinson, 2023; Nieminen *et al.*, 2019), particularly given infrastructure and capacity constraints (Okolo *et al.*, 2023). The potential for AI to exacerbate existing socio-economic inequalities is another significant threat (Eke *et al.*, 2023; Ruttkamp-Bloem, 2023), echoing global concerns about AI ethics and governance (Dignum, 2023; Hickman & Petrin, 2021). External influences, including the dominance of global tech companies and other regions' governance approaches, could overshadow African perspectives in shaping local AI governance (Stahl *et al.*, 2023; Eke *et al.*, 2023). The risk of "*AI colonialism*," where African countries become passive consumers rather than active developers of AI technologies and governance frameworks, aligns with broader concerns about the need for diverse perspectives in AI development (Mäntymäki *et al.*, 2023; Kwanya, 2023). To mitigate these threats, the AU could focus on developing agile, adaptive governance frameworks (Zhang & Dafoe, 2020; Gasser, 2023) and prioritize initiatives promoting equitable access to AI technologies and their benefits, as suggested by Addy *et al.* (2023) and Okolo *et al.* (2023).

7. Conclusions

1) The African Union has made significant progress in establishing a continental framework for AI governance through its Continental AI Strategy, providing a unified vision for responsible AI development across Africa.
2) Despite these efforts, the AU faces challenges in implementing cohesive AI governance due to fragmented regulatory approaches among member states and significant infrastructure disparities across the continent.
3) The AU's initiatives, such as the African Research Centre for Artificial Intelligence (ARCAI) and the African Digital Compact, present opportunities to develop

uniquely African approaches to AI governance that could contribute valuable perspectives to global discussions.

4) The rapid pace of global AI development and the risk of widening digital divides pose significant threats to the AU's ability to implement effective and equitable AI governance across the continent.
5) The success of the AU's AI governance efforts depends on its ability to balance innovation with ethical considerations, address Africa-specific challenges, and foster collaboration both within the continent and on the global stage.
6) The establishment of a high-level coordination mechanism on AI, as proposed in the AU's Continental AI Strategy, could significantly enhance Africa's collective voice in shaping global AI governance norms and standards.
7) The AU's approach to integrating AI governance with broader digital transformation efforts demonstrates a holistic strategy that could lead to more comprehensive and effective governance structures.

8. Recommendations

1) The AU should accelerate the development of model AI regulations that member states can adapt to their specific contexts, using global best practices as reference points while ensuring relevance to the African context.
2) The AU needs to prioritize initiatives to bridge the digital infrastructure gap across the continent, possibly through facilitating public-private partnerships and international cooperation.
3) The AU should enhance the role of ARCAI in building local AI expertise and informing policy development to ensure Africa-specific concerns are addressed in governance frameworks.
4) The AU must develop mechanisms for regular review and update of its AI policies to keep pace with rapid technological advancements in the field.
5) The AU should foster increased collaboration between African countries in AI governance, possibly through establishing regional forums or working groups as outlined in the Continental AI Strategy.
6) The AU needs to implement programs that promote equitable access to AI technologies and their benefits across diverse communities in Africa to prevent widening of digital divides.
7) The AU should strengthen Africa's voice in global AI governance discussions by coordinating participation of member states in international forums, as proposed in the high-level coordination mechanism.
8) The AU must develop strategies to attract and retain AI talent within the continent to build long-term capacity for AI development and governance, aligning with the objectives of ARCAI.
9) The AU should create awareness programs about AI and its governance among policymakers and the general public to ensure informed decision-making and

public engagement, supporting the implementation of the Continental AI Strategy.

Conflict of Interest Statement

The author declares that the research was conducted in the absence of any commercial or financial relations that could be construed as a potential conflict or competing interests.

About the Authors

Joy Wanjiku Njoroge is a Kenyan lawyer and IT law specialist. She holds a Master's in Information and Technology Law and is certified as an Information Privacy Professional in Europe and Information Privacy Manager. Ms. Njoroge has extensive experience developing privacy policies and compliance strategies in Kenya and has served as a guest speaker, seminar leader, and researcher on topics including privacy legislation, regulation of the gig economy, and digital ethics. Her research interests encompass the intersection of law and technology, with particular emphasis on data protection, artificial intelligence regulation, and international cyber security. Ms. Njoroge aspires to contribute to policy-making in the technology sector and become a recognized expert in cyber policy, shaping regulations that protect both individuals and organizations from emerging digital threats.

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