Tech Governance Project

AI Governance in Africa: Current Landscape and Key Challenges

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Abstract

Africa is making progress in governing Artificial Intelligence, as seen through initiatives such as the African Union's Continental AI Strategy. However, the continent still faces challenges, including regulatory gaps, infrastructure deficiencies, and a shortage of skilled professionals. While some countries like Mauritius, Egypt, and South Africa have made notable advancements, comprehensive AI frameworks are still largely absent across most African nations. International partnerships and local organizations are actively working to build capacity and promote responsible AI use. Despite these efforts, Africa's limited participation in global AI governance may limit its influence on shaping international standards. This analysis underscores the need to overcome these challenges to ensure AI's meaningful contribution to development in Africa's key sectors like healthcare, agriculture, and finance.

This is a landscape report conducted to understand the current AI governance effort in Africa, the challenges related to governance, and the emerging trends in governance efforts. The goal is to provide the Tech Governance Project (TGov) with a better understanding of AI governance activities in Africa, assist TGov in refining its interventions, and facilitate connections with appropriate stakeholders. This analysis also serves as a valuable resource for those interested in gaining insights into the AI governance landscape in Africa, ultimately improving understanding and decision-making.

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Tech Governance Project (TGov)

TGov is a non-profit initiative committed to improving the governance of emerging technologies in Africa through stakeholder collaboration, with a focus on Artificial Intelligence and Biotechnology.

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Introduction

Artificial Intelligence (AI) has the potential to revolutionise many aspects of life globally, including transforming economies in ways we are only beginning to comprehend. In Africa, AI technologies could help tackle critical challenges like improving healthcare access and boosting agricultural productivity. However, without focused efforts to address gaps in infrastructure, human capital, and governance, AI may worsen inequalities and leave large parts of the African population behind.

Advanced economies in Europe, North America, and Asia are rapidly integrating AI into their industries, and there is increasing pressure for robust AI governance frameworks. It is, therefore, important for Africa to adopt similar measures to harness AI's potential while safeguarding societal well-being. Effective AI governance helps ensure that AI systems are developed and deployed in line with ethical principles, aiming to address risks such as bias, privacy violations, and labour displacement. Moreover, poorly governed AI has the potential to lead to severe outcomes, from exacerbating inequality to potentially existential risks, if these systems operate outside of human control.

As African nations increasingly embrace AI for economic growth, tailoring governance frameworks to the continent's unique needs may help prevent technological dependency or "AI colonialism."

The Landscape of AI Governance in Africa

The Continental Level

At the continental level, Africa's efforts to govern AI began with a focus on data protection. The Malabo Convention (2014) aimed to establish robust frameworks for data governance, but progress has been slow, with only 15 states ratifying it by May 2023. In 2019, the AU established a Working Group on AI to develop a unified stance on AI regulation and capacity building. This helped lead to the creation of the Artificial Intelligence Blueprint, spearheaded by Smart Africa, a public-private partnership initiative, which guides member states on policy and regulation. In 2021, the African Commission's Resolution 473 acknowledged AI's human rights implications, and several African nations have supported global regulation of Legal Autonomous Weapons Systems (LAWS) at the United Nations (UN). These milestones indicate AI governance is gaining traction and becoming part of the African Union's (AU) agenda.

More recently, the AU published its Continental AI Strategy, which was an important milestone. The strategy outlines AI's potential benefits and the critical challenges, such as regulatory voids, weak governance, insufficient infrastructure, and ethical risks. It calls for comprehensive governance frameworks, updated laws, and efforts to build the infrastructure and skills necessary to foster AI innovation in Africa. The strategy is written to align with the continent's Agenda 2063,

acknowledging AI's pivotal role in achieving the vision of the agenda and the Sustainable Development Goals (SDGs).

Focus areas and action areas for the Continental AI Strategy

Source: African Union, 2024.

The implementation of the Continental AI Strategy will happen in two phases from 2025 to 2030. Phase 1 (2025-2026) focuses on building AI governance frameworks, national strategies, and capacity, while also setting up advisory bodies for knowledge sharing. Phase 2, starting in 2028, will implement key AI projects, which will be reviewed and adjusted based on the findings of a 2027 assessment.

Our analysis of AI governance initiatives at the continental level reveals several key trends and focus areas. Major governance efforts across Africa emphasise data privacy, the prevention of bias and

discrimination, and ensuring safety and security in both civilian and military applications. There is also a focus on promoting inclusivity, with initiatives deeply rooted in African values.

Data privacy is a priority, underscored by the Malabo Convention, while initiatives like the African Commission's Resolution 473 and the AU's Continental AI Strategy focus on equitable deployment of AI to counter discrimination. Safety and security concerns are also significant, encompassing threats such as misinformation, deep fakes, cyberattacks, and the regulation of Legal Autonomous Weapons Systems (LAWS).

However, some areas have received less attention. These include mitigating job displacement through reskilling, improving public awareness and AI literacy, managing digital sovereignty to avoid digital colonialism, and algorithmic bias, as well as evaluating the environmental impact of AI technologies.

Key institutions like AUDA-NEPAD (African Union Development Agency – New Partnership for Africa's Development) play a crucial role in shaping Africa's AI governance, such as through the development of the Continental AI Strategy and AI Roadmap. AUDA-NEPAD's initiatives cover capacity building, infrastructure development, and promoting ethical AI practices, with an emphasis on data sovereignty and regulatory frameworks.

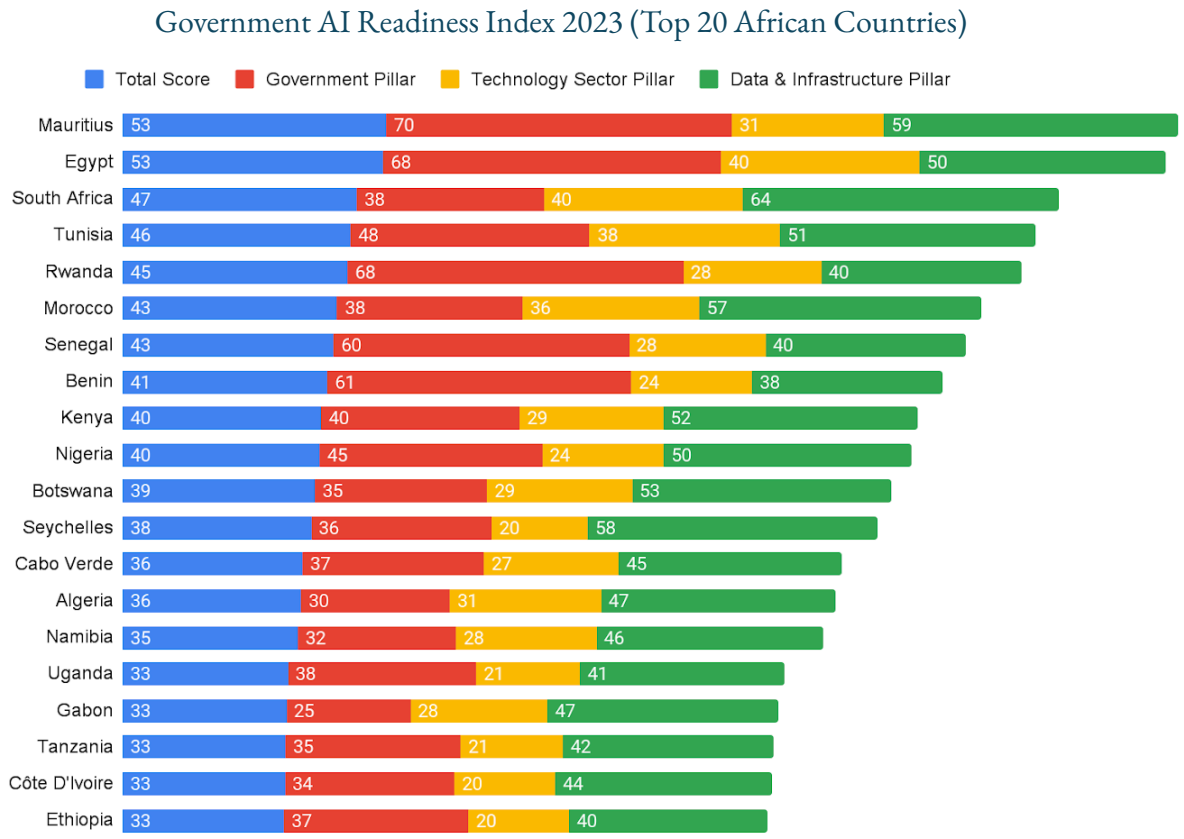
In addition to AU efforts, international partnerships, non-profits, and other external non-government organisations are advancing AI governance in Africa. For instance, the Artificial Intelligence for Development in Africa (AI4D Africa) program, a four-year initiative that supports African-led research and responsible AI deployment.

However, despite these efforts, there is still no dedicated, continent-wide institution solely focused on AI governance, research, and innovation. APET (the African Union High-Level Panel on Emerging Technologies) provides valuable strategic advice on AI, among other technologies, but its broader mandate and advisory role leave a gap for a specialised AI institution. A central body with a focus on AI regulation, research, and global governance—similar to the European AI Alliance or the UK AI Safety Institute—could unite stakeholders, harmonise policies, and drive responsible AI research and development across Africa.

Further potential for harmonising AI policies lies within the African Continental Free Trade Area (AfCFTA), which is working to standardise digital policies across Africa. This could lead to AI regulations that are consistent within a unified market. Additionally, the Pan-African Parliament (PAP) is another avenue for harmonising AI policies. PAP has been an advocate for ratification of the AU's Convention on Cyber Security and Personal Data Protection, and this could be extended to broader AI Governance.

The Domestic Level

Assessing the landscape of AI at a domestic level shows that Africa lags significantly behind globally in AI adoption and governance. Sub-Saharan Africa's AI readiness score averages 30.2, far below the global average of 44.6 and behind regions like Latin America & Caribbean (41.5) and East Asia (51.4).



Source: Oxford Insights, DataPhyte.

Moreover, Africa contributes just 1.2% of global AI-related research, significantly lagging behind Asia (26.5%) and Latin America (2.9%), underscoring the continent's reliance on foreign technologies. This dependency raises concerns about "data colonialism," where African nations are left using external systems that do not necessarily align with local values or address local needs.

Despite these challenges, Mauritius, Egypt, and South Africa lead the region, with scores from Oxford Insights 2023 ai readiness index of 53, 53, and 47, respectively. Mauritius excels in government initiatives, while South Africa outperforms in the Data & Infrastructure pillar.

In terms of legal frameworks, the ALT Advisory report on "AI Governance in Africa" (2022) revealed that a scarce number of African countries have enacted AI-specific legislation. Mauritius has partial laws in place, while Kenya's Robotics and Artificial Intelligence Society Bill is in draft.

Countries like Nigeria, Ghana, and South Africa have passed data protection laws, such as Nigeria's 2023 Data Protection Act, which could serve as a foundation for broader AI regulation. Moreover, South Africa is working on further AI policy initiatives through its Centre for the Fourth Industrial Revolution (The State of AI in Africa, 2023)[1]. While data protection laws exist, they are insufficient for AI regulation, highlighting the urgent need for AI-specific governance to address risks like bias and data misuse.

Only eight African countries[1]—Egypt, Ethiopia, Ghana, Mauritius, Morocco, Nigeria, Sierra Leone, and Rwanda —have developed national AI strategies, and while others, like Kenya, Tunisia and Cote d'Ivoire, are working on draft strategies, most countries lack comprehensive AI frameworks. Notwithstanding, these policy frameworks are still in the early stages of development, meaning AI deployment remains largely without regulation.

A growing number of African countries are taking steps to establish task forces, steering committees, and working groups to shape their national AI strategies and policies. Countries like Uganda, Namibia, and Tunisia have created such a system to guide AI development. Meanwhile, several nations, including Algeria, Egypt, Ethiopia, Mauritius, Morocco, Nigeria, Rwanda, and South Africa, have set up more formal institutions that include AI governance as part of their broader mandate. These institutions are designed to prevent fragmentation by fostering coordinated regulatory standards and promoting ethical AI development. They are similar to AI Safety Institutes seen across the world, such as the AI Safety Institute in the UK. These expert bodies often operate under or alongside existing government ministries. For example, South Africa's Institute for Artificial Intelligence functions as an extension of the Department of Communications and Digital Technologies (DCDT).

In some cases, these institutions also include a focus on research and skills development. For example, Nigeria's National Centre for Artificial Intelligence and Robotics not only emphasises AI governance but also prioritises research and talent development to foster local expertise in AI technologies.

Based on the AI strategies analysed for Egypt, Ethiopia, Ghana, Mauritius, Morocco, Nigeria, Rwanda, and Sierra Leone, the following governance trends and focus areas at the national level emerge:

- At the national level, the higher priority areas are ethical usage, data privacy, infrastructure development, and skill building. Governments are primarily focused on enabling responsible AI growth through capacity building, data regulation, and adopting ethical standards.

[1] TGov made efforts to identify all published and in-development AI strategies across Africa. However, it is possible that some strategies may have been missed as new strategies are developed and released over time.

- Lower priority areas include legal governance, inclusivity, public AI awareness, environmental sustainability, and specific social safety measures for workers with jobs affected by AI-driven automation.

Challenges to Responsible AI Development in Africa

AI governance in Africa faces significant challenges, including regulatory gaps, infrastructure limitations, and shortages in technical skills and institutional capacity. These hurdles, compounded by ethical and socio-cultural concerns, are highlighted in the African Union's AI strategy. The strategy rightly advocates for a "people-centred" approach, emphasising skills development and responsible policies to harness AI's potential for socioeconomic transformation across the continent.

Policy and Regulatory Gaps

As outlined in the previous sections, one of the most prominent challenges for AI governance in Africa is the lack of comprehensive, modern regulations tailored to the unique demands of AI technologies. Many African nations lack specific policies that address AI's complexities, particularly in areas like data privacy, algorithmic accountability, and bias prevention. While the Fourth Industrial Revolution (4IR) accelerates technological advancements, the rapid pace of AI innovation often outstrips the regulatory capacities of African governments, as noted by Arakpogun et al. (2021)[2].

This regulatory vacuum leaves Africa exposed to potential exploitation and unaddressed risks. Governments are struggling to regulate an ever-evolving target, as AI systems are quickly advancing in capabilities, while legal frameworks remain outdated.

Data security is a particular area of concern. AI systems rely heavily on vast datasets, including sensitive personal information. Inadequate data protection laws across Africa increase the risks of data misuse, cyberattacks, and unethical practices like "ethics dumping," where foreign companies exploit weak regulations in developing countries. Without a robust governance structure, African nations face the dual threat of exploitation and lost control over their data contributions to global AI development (Ruttkamp-Bloem, 2023)[3].

Copying regulations from more developed regions, such as the European Union's AI Act, may not provide a sufficient solution. As Arakpogun et al. (2021) argues, past experiences with borrowing policies from the West, such as economic reforms based on the Washington Consensus or telecoms liberalisations, have shown that such strategies often fail to address local realities.

Therefore, African countries could potentially benefit from tailoring AI policies to their specific socio-economic realities, adopting a problem-driven approach that considers local contexts as emphasised in the continental strategy.

Institutional and Skills Shortages

The shortage of technical expertise and strong institutional capacity in many African countries poses challenges for AI governance. Kiemde and Kora (2022)[4] highlight the need for integrating ethical considerations into AI education to address this gap. Many African educational institutions lack the resources to train students in AI development and ethics, contributing to a skills gap identified by UNESCO in 2021, where only six African countries had sufficient capacity to manage AI's ethical implications.

The State of AI in Africa Report (2023) stresses that capacity building in AI must focus on both practical and theoretical skills. National education systems need restructuring to include digital literacy and training, while AI-driven remote learning can improve access. However, poor internet connectivity and technological infrastructure remain barriers to widespread implementation.

A major challenge is the underrepresentation of African voices in AI development. Both Kiemde and Kora (2022) and the State of AI in Africa Report (2023) call for stronger local participation in AI research and innovation. African universities should be central to this, yet limited funding and personnel hamper their ability to contribute. The State of AI in Africa Report also emphasises the need to train policymakers in AI governance through handbooks and tailored curricula, ensuring that AI policies are informed and relevant to African needs.

The brain drain issue, where talented individuals leave Africa for better opportunities abroad, exacerbates these challenges. In addressing this, Kiemde and Kora advocate for increased investment in education and research to retain local talent. This aligns with the State of AI in Africa Report's call for governments to prioritise both policymaker and academic training to build local capacity and ensure AI development reflects African realities.

Infrastructure Deficiencies

Infrastructure gaps pose a significant challenge to AI development in Africa. Reliable internet access, stable electricity, and robust digital infrastructure are essential for AI adoption, yet much of the continent struggles in these areas. Despite a rise in internet penetration (% of individuals using the internet) from 6% in 2010 to an estimated 37% in 2023 (ITU, 2023)[5], poor connectivity, especially in rural areas, hampers AI use (Okolo et al., 2023)[6]. High mobile data costs and limited broadband access further restrict AI adoption (State of AI in Africa Report, 2023).

Electricity shortages compound the problem, with only 28% of rural sub-Saharan Africa having access to power. This limits the deployment of AI in critical sectors like healthcare and agriculture. Although AI has shown potential in areas such as HIV testing in South Africa and traffic management in Uganda, scaling such solutions is difficult without sufficient infrastructure (Kiemde & Kora, 2021).

Another challenge is the lack of computing infrastructure. Many African organisations lack the resources and data management protocols necessary for AI, resulting in inadequate local datasets for machine learning. This makes AI solutions based on external data less relevant to local challenges (State of AI in Africa Report, 2023). Developing contextual data collection infrastructure is essential for AI innovation in Africa.

Additionally, much of Africa's digital infrastructure is controlled by foreign entities, raising concerns about data sovereignty. Tech giants like Facebook, Google, and Huawei dominate the landscape, creating dependency on external services (Kiemde & Kora, 2021). While projects like Google's Loon and Facebook's "2Africa" aim to improve connectivity, their long-term impact remains uncertain (Okolo et al., 2023).

Effoduh (2021)[7] emphasises the need for accessible, affordable digital infrastructure, including secure networks and data storage. Without these, the successful deployment of AI technologies across Africa is hindered.

Ethical and Social Considerations

Ethical and socio-cultural considerations are essential when implementing AI in Africa due to its diverse cultural and socioeconomic context. A single global AI framework may not reflect Africa's unique needs. Kiemde and Kora (2021) emphasise that AI systems must be adapted to local values, cautioning against Western-dominated frameworks that risk sidelining African perspectives.

Algorithmic bias is a major issue, as AI systems trained on biased datasets can exacerbate disparities in healthcare, employment, and justice. Hassan (2022)[8] notes that most AI is developed in non-African contexts, often disadvantageous to African users. The State of AI in Africa Report (2023) stresses the need for ethical frameworks that ensure fairness, accountability, and transparency in AI development.

Data privacy is another significant challenge, with many AI systems operated by foreign companies, raising concerns about data sovereignty. Kiemde and Kora (2021) stress the importance of local control over digital infrastructure, while Effoduh (2021) advocates for affordable infrastructure to support safe AI use. Shao et al. (2023)[9] call for robust data protection laws aligned with local values and human rights.

To ensure AI benefits Africa, Kiemde and Kora (2021) advocate for embedding Ubuntu, which emphasises collective welfare and human dignity, into AI development. This African ethical approach can ensure that AI promotes social justice, inclusion, and contributes to societal improvement.

Our Reflection on the Need for African Participation in the Global Governance of AI

Africa's participation in the global AI governance dialogue helps to ensure that the continent's unique challenges, opportunities, and perspectives are properly represented. Governance frameworks created without African input risk overlooking socio-economic contexts or even exploiting African resources and data without equitable benefit. By being part of the process from the outset, African countries can contribute to shaping the global standards that will directly affect their economies, societies, and technological sovereignty.

Early and consistent participation in these discussions may help build trust with international partners and strengthen Africa's credibility as an emerging hub for AI innovation. It signals a long-term commitment to responsible AI governance, making the continent more attractive for investment, which can support the infrastructure and capacity building needed to harness the benefits of AI. This involvement is crucial for ensuring that AI technologies contribute positively to socio-economic development across the continent.

Despite some progress, Africa's presence in international AI forums remains relatively limited compared to other continents. Currently, Senegal is the only African nation that is a member of the Global Partnership on Artificial Intelligence (GPAI), a key platform for shaping AI governance standards. South Africa is also making strides by participating in the World Economic Forum's (WEF) Global AI Governance Alliance, while other countries like Kenya and Rwanda are also engaging. For example, Rwanda is set to host the inaugural Global AI Summit on Africa in collaboration with the WEF in April 2025, marking a step towards giving Africa a more prominent role in global AI discussions.

There have also been promising steps towards greater involvement. The Bletchley Declaration in 2023, signed by Nigeria, Rwanda, and Kenya, demonstrated a commitment to collaborative AI governance, as did the Seoul Ministerial Statement in 2024, which emphasised the importance of responsible AI development across borders. African nations are also involved in UN-related AI initiatives and are members of the International Telecommunication Union (ITU), participating in events like the AI for Good Global Summit.

These efforts are crucial to ensuring African voices are heard in global discussions that shape AI policy.

There is significant potential to expand African representation in major global discussions by increasing participation across influential forums like GPAI and the World Economic Forum. A collective regional voice would likely be far more impactful than individual national efforts, and building coalitions, such as a West Africa coalition, could amplify Africa's presence on the global stage. Moving towards a unified Pan-African position could be particularly effective in

strengthening influence in international AI governance, positioning Africa as a coordinated force with the ability to shape global standards.

The AU AI Strategy highlights the critical role of regional and international cooperation for Africa's AI success. The strategy recommends fostering regional AI ecosystems, joint research projects, and active participation in global AI governance, ensuring Africa benefits from AI-driven growth while addressing shared risks.

Effective diplomatic engagement and building global influence in AI require both representation and robust institutional support. Reducing fragmentation by bringing together African AI experts under continent-wide institutions may facilitate the collaboration needed to foster knowledge sharing and network benefits. A unified network of experts, researchers and policymakers would improve Africa's ability to consistently contribute to global discussions. When complemented by partnerships with NGOs, academic institutions, and the private sector, these efforts could greatly enhance the capacity for effective global participation and leadership.

Emerging Trends in AI Adoption in Africa

AI is being integrated across key sectors in Africa. In this section, we provide an overview of some emerging trends in sectors like healthcare, agriculture, finance, education, and public services. Although this is not a comprehensive analysis, it offers insights into how AI is beginning to make an impact across the continent. The APET Report (2021) explores these applications, which these examples and case studies draw heavily on and give due credit to, so please see the report for more detail.

- Life Sciences (incl. Healthcare): AI is playing an emerging role in healthcare. In South Africa, it aids HIV diagnosis, while in Nigeria, it enhances disease surveillance and diagnoses like birth asphyxia (Otaigbe, 2022)[10]. AI also supports medical imaging, with Envisionit Deep AI assisting with disease diagnosis from X-Rays in South Africa and ChestEye in Nigeria detecting tuberculosis. Uganda and Kenya are using AI in cancer management and cervical cancer diagnosis, respectively, and telemedicine is aiming to diagnose patients remotely across regions.
- Agriculture: AI is starting to be used to optimise farming practices. For example, Google's "Nuru" helps Tanzanian farmers detect crop diseases early (Arakpogun, 2021). In South Africa, companies like MySmartFarm, Aerobotics, and FarmDrive are using AI for plant disease detection, price prediction, marketing support, and expert consultations. These early implementations show potential for improving agricultural productivity and food security across Africa.
- Finance: AI is showing promise in improving financial inclusion in Kenya, where startups like PesaKit connect communities to banking services. In Ghana, Curacel is using AI to streamline claims processing and detect fraud (Arakpogun, 2021). In Nigeria, AI supports fraud detection and credit risk management. Meanwhile, online bots, such as Nigeria's

Kudi.ai, are increasingly used for tasks like bill payments, while chatbots in Kenyan and South African banks help with customer service and financial advice.

- Education: AI is starting to create personalised learning experiences by adapting to student progress, offering potential in underserved regions (Arakpogun, 2021). In South Africa, AI-powered analytics predict student performance and identify learning challenges through the Siyaphumelela program. Universities in Nigeria and Senegal are also using AI for similar purposes, and Nigeria's Lainos World has developed AI-driven geography education software.
- Energy: AI technologies are emerging in the energy sector to improve renewable energy management. Morocco uses AI to predict solar irradiation, and Nigeria and South Africa use artificial neural networks (ANNs) for solar energy and industrial consumption forecasting. Algeria's hybrid models help predict energy needs for heating and cooling, which may improve efficiency in areas facing electricity shortages.
- Public Services: AI has clear potential to enhance efficiency in public services, streamlining tasks and improving transparency. In urban planning, for example, AI tools are used for traffic management and automated surveillance, improving city infrastructure and safety. APET notes that "many policymakers who are to pass and implement the AI systems in their respective countries are anxious about this kind of development" and hence "they sabotage such AI-enabled public services delivery implementation."

Navigating Sector-Specific Challenges

AI governance is complex due to its widespread use across industries and rapid development. It requires both broad principles that apply to all sectors and tailored policies that address the specific needs of different industries. As AI merges with technologies like biotechnology, existing governance frameworks must adapt to handle new challenges that arise in these different contexts.

Governance needs to be flexible to manage AI's risks and opportunities in different sectors. For example, in healthcare, regulations could focus on patient data privacy and the accuracy of AI tools. In finance, priorities may include fraud prevention and fair lending practices. Each sector needs customised policies to ensure AI is used responsibly.

When AI combines with technologies like synthetic biology, existing regulations may not fully cover the new risks created by these convergences. For instance, when AI is used in biotechnology (AIxBio), new biosecurity risks emerge. In this case, biotechnology policies must be strengthened, while general AI principles—like risk assessments and algorithm transparency—are also needed to ensure safety and accountability.

Strategic Monitoring and Adaptive Governance

The rapid development and adoption of AI calls for strategic monitoring and adaptive governance to stay responsive to its impact. With AI technologies like generative AI evolving quickly, new challenges such as misinformation and surveillance risks are emerging across Africa.

To address these risks, there is a growing recognition of the need for agile governance approaches that can quickly adapt to AI advancements. This involves continuous monitoring of technology developments, collaborating with the private sector, and adjusting policies as required to keep pace with rapid changes.

The AU Continental AI Strategy highlights this, noting "continuous analysis, monitoring, and stakeholder engagement are essential to navigating the evolving landscape of AI and maximising its positive impact in Africa."

Conclusion

This analysis underscored the need of building strong institutions, engaging globally, and developing robust frameworks to unlock AI's full potential in Africa. By effectively managing AI through these efforts, Africa can create an environment that attracts investment, fosters innovation, and gains the trust of communities. With clear and adaptive AI policies, the continent can leverage AI as a powerful tool for socioeconomic transformation, ensuring it benefits all of society.

References

1. "The State of AI in Africa Report 2023." Centre for Intellectual Property and Information Technology Law, 2023. https://cipit.strathmore.edu/wp-content/uploads/2023/05/The-State-of-AI-in-Africa-Report-2023-min.pdf.
2. Arakpogun, Emmanuel, Ziad Elsahn, Femi Olan, and Farid Elsahn. "Artificial Intelligence in Africa: Challenges and Opportunities," 375–88, 2021. https://doi.org/10.1007/978-3-030-62796-6_22.
3. Ruttkamp-Bloem, Emma. "Epistemic Just and Dynamic AI Ethics in Africa." In Responsible AI in Africa: Challenges and Opportunities, edited by Damian Okaibedi Eke, Kutoma Wakunuma, and Simisola Akintoye, 13–34. Cham: Springer International Publishing, 2023. https://doi.org/10.1007/978-3-031-08215-3_2.
4. Kiemde, Sountongnoma Martial Anicet, and Ahmed Dooguy Kora. "Towards an Ethics of AI in Africa: Rule of Education." AI and Ethics 2, no. 1 (February 1, 2022): 35–40. https://doi.org/10.1007/s43681-021-00106-8.
5. "Facts and Figures 2023 - Internet Use." Accessed October 8, 2024. https://www.itu.int/itu-d/reports/statistics/2023/10/10/ff23-internet-use.
6. Okolo, Chinasa T., Kehinde Aruleba, and George Obaido. "Responsible AI in Africa—Challenges and Opportunities." In Responsible AI in Africa: Challenges and Opportunities, edited by Damian Okaibedi Eke, Kutoma Wakunuma, and Simisola Akintoye, 35–64. Cham: Springer International Publishing, 2023. https://doi.org/10.1007/978-3-031-08215-3_3.
7. Effoduh, Jake Okechukwu, Ugochukwu Ejike Akpudo, and Jude Dzevela Kong. "Towards an Inclusive Data Governance Policy for the Use of Artificial Intelligence in Africa." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, September 23, 2023. https://doi.org/10.2139/ssrn.4581619.
8. Hassan, Yousif. "Governing Algorithms from the South: A Case Study of AI Development in Africa." AI & SOCIETY 38 (July 13, 2022). https://doi.org/10.1007/s00146-022-01527-7.
9. Shao, Deo, Nyankomo Marwa, and Didas Matendo. "Regulatory Strategies for Fostering Responsible AI Innovation in African Economies." In 2023 First International Conference on the Advancements of Artificial Intelligence in African Context (AAIAC), 1–11, 2023. https://doi.org/10.1109/AAIAC60008.2023.10465404.
10. Otaigbe, Idemudia. "Scaling up Artificial Intelligence to Curb Infectious Diseases in Africa." Frontiers in Digital Health 4 (October 21, 2022). https://doi.org/10.3389/fdgth.2022.1030427.