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ARTIFICIAL INTELLIGENCE GOVERNANCE IN AFRICA: BALANCING INNOVATION, SOVEREIGNTY, AND GLOBAL COMPETITION.

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Abstract

At the cusp of a worldwide artificial intelligence revolution, Africa faces a profound trilemma between encouraging innovation to tackle development challenges, establishing digital sovereignty over data and infrastructure, and responding to a fiercely competitive global market dominated by the established AI superpowers. This paper contends that effective AI governance in Africa must move beyond fragmented regulatory paradigms to a strategic response that manages competing pressures. Based on qualitative analysis of emerging African AI strategies-specifically Mauritius, Kenya and South Africa-and on a comparative examination of existing international frameworks such as the EU AI Act and of American and Chinese AI approaches, this research identifies major governance gaps and inconsistencies in contemporary attempts, where each dimension (innovation, sovereignty, and global competition) appears to dominate at the expense of others. The research reveals that although African countries are succeeding in adopting data protection regulations and designing national AI strategies, they are highly susceptible to digital colonialism and infrastructure dependency, and to fragmented policy-making approaches. In light of twenty of the most recent articles on the topic, this paper introduces a "Sovereign Innovation" paradigm, focused on regional integration, strategic infrastructure sovereignty, a values-based design rooted in African philosophies like Ubuntu, and leveraging global partnerships. This paradigm provides African policymakers and regional organizations with an opportunity to embrace AI in the pursuit of sustainable development while safeguarding autonomy and ensuring local ownership within a context of increased global rivalry.

Keywords: *Artificial intelligence governance, Africa, digital sovereignty, innovation policy, global competition, AI ethics, African Union, decolonization*

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1. Introduction

1.1 The African AI imperative

The rapid spread of artificial intelligence throughout Africa offers immense possibilities along with significant risks. Indeed, throughout the continent, AI is being deployed to enable the implementation of sophisticated agricultural systems to maximize crop yields, in order to assist the smallholder farmers. Furthermore, the use of AI in fintech platforms contributes to enhancing financial inclusion for the unbanked population, and in public health, the adoption of health informatics to support disease surveillance systems. Thus, AI presents the potential to serve as "leapfrog" technology, thereby assisting Africa in skipping some of the usual development stages as happened with mobile phones in the early 2000s.

This future potential, however, has some challenges. Institutional breakdown, poor infrastructure, and scarcity of skills experts have been reported as the main hindrances toward AI adoption in African business settings by Amankwah-Amoah et al. (2022). Correspondingly, financial obstacles, weak infrastructure, and ineffective communications between the educational and business sectors have also hampered the dissemination of AI education on the continent, according to Aryee et al. (2025). Therefore, the huge demographical advantage Africa benefits from, which relies on the youthful character of its population, could be a burden rather than an asset if education is not able to prepare young people for an AI-powered era.

1.2 Problem statement

The central hypothesis of this study is that the governance of AI in Africa primarily revolves around a three-pronged challenge, which has been coined the "governance trilemma":

Innovation involves the establishment of conducive regulatory frameworks, the availability of finance and human capital, and accessible infrastructure in order to facilitate locally developed AI solutions to local development problems. This perspective, emphasized by Shao et al. (2023), holds that flexible regulations help boost the responsible development of AI while adapting it to specific African contexts.

Sovereignty refers to maintaining control over local data, infrastructure, and autonomy in decision-making. It entails implementing data localization requirements, ensuring citizens' privacy rights,

and tailoring AI systems to African cultural norms, as opposed to importing foreign ethics (Maimela et al., 2025).

Global competition is related to interacting with the global technological giants based in the US, China, and Europe, as well as their legal frameworks. African nations should ideally negotiate this interaction either through strategic partnerships, technology transfer deals, or by adopting protectionist policies without necessarily surrendering their autonomy or developing a dependency relationship.

Today, ethical considerations (Corra et al., 2022) and innovation policies tend to treat these three aspects separately: one may discuss the ethics of AI without much focus on the geopolitical implications, while the latter often centers on obtaining foreign investment without necessarily guaranteeing data sovereignty and ethical deployment of AI systems. Therefore, African governments lack coherent guidance from contemporary literature.

The study of AI governance in Africa has been growing, yet current research either looks at innovation, sovereignty or global competition as separate issues. Because innovation, sovereignty and global competition are studied as disconnected issues, policymakers face a challenge in discerning the trade-offs between them. This paper proposes the notion of an AI governance trilemma to highlight the tensions between these factors, and uses it as a holistic lens with which to assess the choices regarding the regulation and governance of AI in Africa.

1.3 Research questions

This paper aims to answer the following three questions:

1. In which ways do current African AI governance attempts address innovation, sovereignty, and global competition?
2. What are the contradictions or trade-offs inherent in such approaches, and how are they visible at the national level?
3. What strategic framework should guide African states and regional bodies in navigating the trilemma?

1.4 Paper structure

The paper is structured as follows. Section 2 presents an overview of global AI governance, African AI development, and digital sovereignty literature. Section 3 outlines the methodology applied for this research, particularly with regard to the case selection and analysis methods. Section 4 focuses on describing the three sides of the governance trilemma. Section 5 presents in-depth analyses of the three selected cases: Mauritius, Kenya, and South Africa. Section 6 brings the findings together and introduces the proposed "Sovereign Innovation" paradigm. The last section, Section 7, concludes with practical recommendations for African policy makers and directions for further research.

2. Literature Review

2.1 The Landscape of AI Governance Globally

The world of AI governance is structured around three primary, ideologically opposed models.

i. The Brussels Effect: EU AI Act

The EU's AI Act is the most thorough regulatory framework enacted thus far. While Bignami et al. (2025) observe that the AI Act is likely to contribute to the safety of users and the protection of fundamental rights, they are also concerned that it could hinder the pace of innovation due to its compliance costs and its uncertainties on a global level. The Act uses a risk-based classification approach and will require stringent regulations for "high-risk" AI applications, while less stringent rules for lower-risk AI. Insofar as it mandates EU requirements to anyone dealing with the European markets (whether they have a market presence in Europe or not), it is seen to create the "Brussels effect" (Bignami et al., 2025).

ii. The Beijing Model: State-led Development

The Beijing model of AI governance focuses on technical self-reliance and state-centric controls over AI in order to achieve national superiority in technology and economics. The government directs its investment, development efforts, and information flows while aiming to develop the leading global market of AI. The model's focus is also on maintaining stability within its territory and controlling its public using its vast capacity for surveillance.

iii. The Washington Consensus: Innovation First Model

The US has taken a relatively "light-touch" approach to regulation historically, but with a more structured, government-driven innovation focus appearing with a more recent range of executive orders and sectoral regulations, it may prove closer to a state-led approach. However, the country maintains its dominance through tech companies, thus favoring a light touch on the sector.

2.2 AI and Africa: A Critical Perspective

Discourse surrounding AI in Africa presents contrasting visions: optimism for leapfrogging using technology, versus the risk of digital colonialization. The M-Pesa success story, an example of leapfrogging that uses mobile technology to revolutionize financial services and inclusion, presents a possible paradigm for AI leapfrogging in the continent. Nevertheless, scholars are cautious about what they term "solutionism".

Ayana et al. (2024) conduct a comprehensive study of decolonized AI governance in Sub-Saharan Africa and find limited progress, ranking countries based on how responsive they are to decolonization of AI. The study indicates that Rwanda has made the most progress, while most African countries have had very limited engagement with any discourse of decolonization. This study is seminal to how power imbalances continue to play out.

Digital colonialization is at the core of discussions on how Africa should deal with the continent's engagement with AI technologies. Maimela et al. (2025) analyze AI in the context of Higher Education Institutions in South Africa and find risks of digital colonialization of Historically Black Universities through the adoption of AI technologies. It finds that if decolonization does not become a conscious political act, the use of AI could enhance the inequalities between institutions. Similarly, Plantinga (2022) discusses the adoption of AI in public administration in African countries, outlining the tensions that it poses, and calling for deliberation on how AI could empower and disenfranchise its users, impacting human agency and integrity and democratic participation and accountability.

2.3 Sovereignty in the Digital Realm

Sovereignty for African countries in the digital era extends to issues of self-determination, cultural integrity, and economic autonomy, beyond just physical control over territory. Baguma et al. (2023) propose an AI readiness index for African countries that takes governance and ethics into account along with physical readiness, thus recognizing its many facets.

The most concrete manifestation of sovereignty in Africa at the moment is evident in data protection laws that have been legislated by many African countries. Townsend et al. (2023) mapped the regulatory landscape for AI in Africa and confirmed that while explicit AI regulations are few, data protection laws, consumer protection regulations, and Intellectual property laws have laid the foundations for more sophisticated regulation of AI. Data protection legislation exists in various African countries like Kenya, Nigeria, South Africa, and Ghana, although the capacity for implementation varies.

Nonetheless, many constraints limit the reach of any move towards sovereignty. Owor et al. (2025) examined Africa's readiness to use AI in HR functions and identified critical factors such as low broadband penetration, fractured policy frameworks, and capacity limitations as impeding its use in the continent. The systematic review highlights positive developments such as increased innovative hubs and literacy, but maintains that the continent must work collectively to ensure meaningful sovereignty.

2.4 The Innovation-Sovereignty Gap

The most critical void in the present literature is the lack of an analytical framework discussing the interconnectedness between innovation, sovereignty, and the global struggle for competition and dominance. Most studies only tackle one facet of it: for example, ethical guidance for AI (Corra et al., 2022), specific applications of AI in sectoral contexts like agriculture (Oyeboade et al., 2024), waste management (Sikhakhane Nwokediegwu et al., 2024), or education (Chisom et al., 2024).

When studies address the governance aspect, they do so by focusing on technical readiness assessments (Baguma et al., 2023) or abstract ethical guidelines (Goktas et al., 2025), while ignoring the political economy aspect of AI where power relations dominate technological transfer, the nature of competition among nations determines policy, and how sovereignty should be articulated without compromising the pace of innovation. This paper provides a step towards filling this void by providing an analytical framework focusing on these dimensions simultaneously, proposing regional cooperation as an important path towards effective sovereignty.

This concept seems to lack a comprehensive framework of the intertwined mutually shaping influence of innovation, sovereignty and global competition, as co-determining variables in the

literature. That this lacuna is important becomes even clearer in the African context, where governance choices are constrained both by internal interests and external political forces. This paper attempts to fill the gap by suggesting an integrated trilemma framework and empirically testing it on select African cases.

3. Methodology

3.1 Research Design

This study adopts a qualitative comparative case study methodology, an appropriate approach when analyzing highly contextualized and contested forms of governance. Being interpretivist in nature, this design recognizes that the complexities of AI governance, in terms of varying values and meanings, cannot be fully captured and analyzed through quantitative measures alone.

3.2 Case Selection

Three case studies were selected from among African states due to the differential ways in which each state is approaching AI governance.

i. **The Republic of Mauritius**: It has already developed the most comprehensive and advanced AI policy and strategy within the continent and is attempting to present itself as a high-tech hub and lure foreign direct investment into the country, while at the same time retaining a higher degree of technological sophistication and regulation. It is thus a unique case, given its small size, as well as its technological development.

ii. **Kenya**: It represents an energetic and growing innovation ecosystem known as "Silicon Savannah". Its growth is fueled by a strong culture of startup development and leadership in mobile technologies; an approach it seeks to couple with a progressive regulatory framework, evident in its 2019 Data Protection Act and the drafting of a national AI strategy.

iii. **South Africa**: The country has adopted a rights-based approach, a system where all AI policies and guidelines are built around its constitutional rights and a robust framework for civil society participation in governance. This rights-based and decolonisation approach, being adopted through its AI Institute, may arguably hinder a faster and more innovative pace for the country.

In addition, the African Union's "AI for Africa" blueprint has been adopted as the overarching regional approach.

3.3 Data Collection and Analysis

Primary data were systematically collected from:

1. National AI strategies and policies from Mauritius, Kenya, and South Africa
2. Data protection and information communication technology (ICT) legislation within these countries
3. AU's Digital Transformation Strategy and its African Continental AI Strategy documents
4. UNESCO AI Readiness Assessments in these and other African countries

Secondary data sources relied upon the 20 sources cited in this work, along with relevant reports from international organizations like the UNESCO, ITU, and the OECD, and African think tanks like the CIPESA and Research ICT Africa. The coding framework was primarily based on themes drawn from the three poles of the trilemma.

1. Innovation: codes for financial investment, research and development (R&D) sandboxes, startups, capacity, and skills development
2. Sovereignty: codes for data governance, technology transfer, local content, cultural value systems, and decolonisation
3. Global Competition: codes for international agreements, foreign direct investment, and technology transfer, and dependence risk

3.4 Analytical Framework

This paper uses the three-fold trade-off conceptualization for its operationalization of the analytical framework presented in Figure 1. It treats AI governance as the interplay among three competing forces-innovation, sovereignty, and global competition-where the competing demands placed by each dimension on the others generate trade-offs that then influence each country's national policy outcomes; a nation that invests in innovation may be increasingly reliant on foreign technologies thereby undermining sovereignty, or a country that prioritizes sovereignty may limit its ability to penetrate global markets thereby diminishing competitiveness. This framework has been used to inform the coding and comparative analysis of the cases under examination.

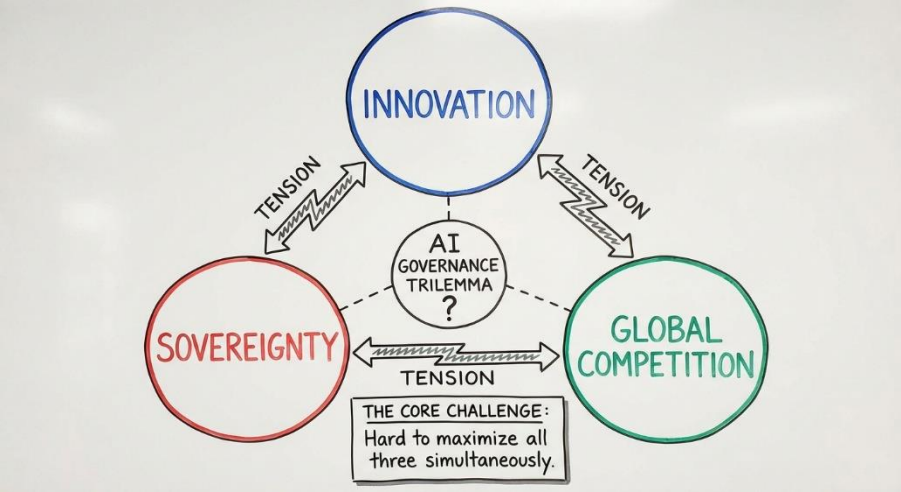

Figure 1: ***AI Governance Trilemma***

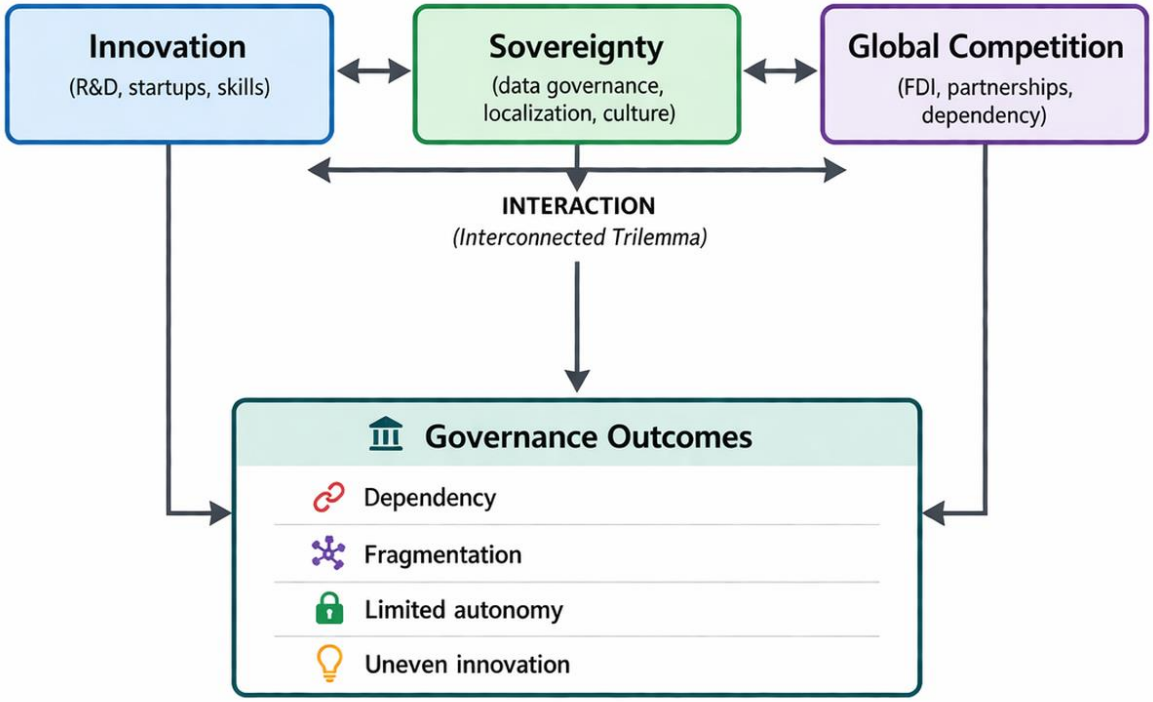

Figure 2: ***Analytical Framework***

4. Analysis

4.1 The Imperative to Innovate: From Sandboxes to Scale

The decade-long progress in the African AI innovation ecosystem is noticeable; yet, the disparity among the states and across varied sectors is profound.

- **Fintech Leadership**

Oriji et al. (2023) survey the development of the financial sector of Africa and identify the role of AI in delivering inclusive financial services. But they remind the reader of regulatory issues and data privacy that must be addressed with advanced governance. The success of Kenya's M-Pesa has enabled the rise of numerous AI-powered fintech startups, although their growth is limited to mobile money.

- **Sectoral Applications**

Oyeboade et al. (2024) analyze and compare AI applications in US agriculture versus Africa and conclude that in the USA, it revolutionized farming methods by applying precision technologies, unlike in Africa, where challenges related to smallholder farm structures, infrastructure deficit, and climate variability demand a more adaptive approach rather than mere replication of foreign technology.

Sikhakhane et al. (2024) concur that innovations in waste management using AI should also take socio-economic and infrastructural context into consideration. Similarly, Balogun et al. (2023) highlight use cases in health informatics such as disease surveillance and public health policy support.

- **Capacity limitations**

In spite of this progress, several challenges hamper this innovation development process. Amankwah-Amoah et al. (2022) identify weak institutions, lack of infrastructural facilities, and skills shortages as some of the impediments while Aryee et al. (2025) on the education of AI across the continent found gaps related to financial resources, poor infrastructure, and poor linkage between academia and industry as major concerns that can be addressed through student internships, linkages with the industry, and inclusive governance.

- **Policy towards Innovation**

The authors Shao et al. (2023) recommend flexible regulatory frameworks to promote innovation and support a cautious approach to managing AI, considering the diverse needs of Africa. It is thus imperative that regulation takes the form of regulatory sandboxes, iterative policy-making, and engagement with relevant stakeholders, though the ability to balance the enablement of innovation with managing potential risks demands a sophisticated governance framework for adoption, as evidenced in the work of Mweha (2026), who explores the application of generative AI by Sub-Saharan SMEs.

4.2 The Need to be sovereign: Data, values, and infrastructure

The importance of sovereignty runs through the debate about African AI governance due to the history of resource exploitation on the continent and anxieties regarding digital colonialism.

- **The Foundation of Sovereignty is Data Protection**

The regulatory frameworks of African countries show a disparity, and while specific AI regulation is at a nascent stage, there are emerging Data Protection regimes across Africa, with Kenya's Data Protection Act (2019), South Africa's Protection of Personal Information Act (POPIA), and Nigeria's Data Protection Regulation laying a foundation for data sovereignty.

However, the actual implementation varies across countries, where countries like Rwanda appear more responsive than others to translating legislation into capacity, according to the report by Ayana et al. (2024) on decolonized AI governance in Sub-Saharan Africa.

- **Sovereignty of infrastructure**

The need to retain ownership over data through localization and the expansion of fiber optic networks is an effort in ensuring sovereignty, as there is a growing consensus among the nations that data stored on foreign servers and processed by algorithms of foreign origin and even regulated by foreign law represents a loss of sovereignty, even with appropriate domestic legislation.

- **Values and Cultural Sovereignty**

Frimpong (2024) examines the context-specific responses to AI-related anxieties, such as concerns about data privacy, surveillance, and ethical considerations, and has concluded that there is a need to rethink global ethical guidelines and promote inclusive values in the African context.

Maimela et al. (2025), who explored decolonization in South African universities, find that there is a chance that integration of AI would exacerbate Western epistemological hegemony and undermine indigenous knowledge systems rather than decolonizing them, especially in Historically Black Universities due to their limitations in resources and histories of marginalization.

In his examination of public administration, Plantinga (2022) urges for governance frameworks for AI to reflect local values instead of simply importing foreign models and also underscores the need to preserve accountability and inclusiveness in decision-making.

4.3 Competing in the Global Arena: Partners or Dependent Nations

The geostrategic aspect of AI governance brings complexities for the African continent.

- **Geopolitics of AI**

African nations are at the heart of global power dynamics for both market access and talent from the USA and China, as it positions Africa at the center of the Digital Transformation with the Africa program of the United States, while the Belt and Road initiative of China represents a development alternative driven by digital infrastructure investments by Huawei.

The work by Bignami et al. (2025) highlights how geopolitical realities affect regulation, as exemplified by the EU AI Act, and how it dictates certain choices in governance mechanisms, infrastructure dependence, and future autonomy for the African continent based on its partner nations.

- **Risks of dependence**

The dependency issue was also raised by Mweha (2026) concerning generative AI and Sub-Saharan SMEs, where poor governance structures might accelerate dependence on foreign technologies, an observation that confirms Ayana et al. (2024)'s arguments on decolonization, where lack of capacity hinders the implementation of imported technology.

- **Opportunities through partnership**

The global competition also presents opportunities for African nations to leverage the desire of global powers to expand their markets in Africa to ensure better development terms that include local content, technology transfer, and joint venture operations, which could only be effectively realized through better cooperation and not individual efforts.

- **African Union as an opposing power**

Baguma et al. (2023) argue that on the global stage, individual African countries will continue to struggle to represent their interests; thus, a pan-African approach through an AI readiness index and collective response through the African Union can help consolidate bargaining power.

5. In-depth Look at Cases: Paths to Success and Failure

Consistency is maintained by treating each case in the three components of the governance trilemma: capability for innovation, the mechanisms for exercising sovereignty, and one's position in world competition. A system for comparison in the way diverse priorities will result in various trade-offs and policy outputs is thus developed.

5.1. Mauritius: A Model of High-Tech Sovereignty

Mauritius has created the most comprehensive AI strategy across Africa. By combining cutting-edge infrastructure, a pro-business environment, and a strong drive for foreign investment, it has established itself as a technological leader.

Table 1: Case Study Summary

Country	Innovation	Sovereignty	Global Competition
Mauritius	High	High	Medium
Kenya	High	Low	High
South Africa	Medium	High	Medium

- **How they innovate**

The country has built AI sandboxes, research facilities, and incentives aimed at drawing international technology companies. Education of a high standard, a digital backbone, and clear legal frameworks have been central to their strategy for fostering innovation.

- **How they achieved sovereignty**

While open to foreign investment, Mauritius adheres to rigorous regulatory systems. Its data protection legislation satisfies global standards while retaining national control. Due to its size, Mauritius can coordinate its governance unlike much larger nations.

- **Global competition position**

Mauritius attracts investment and keeps its autonomy by offering a stable environment and advanced regulations. However, its small local market leads to dependence on foreign companies, and the success of this long-term strategy has yet to be proven.

- **Tensions and trade-offs**

The Mauritian model proves that advanced governance and investment can coexist with national control. The question remains whether the job creation, technology transfer, and tax revenue from foreign investment are worth the cost of dependency. Also, the feasibility of this model for larger and more diversified African nations has yet to be determined.

5.2. Kenya: Growing pains in the innovation-led model

Kenya's "Silicon Savannah" has Africa's most vibrant tech sector. Driven by mobile-first expertise and a bold, entrepreneurial spirit.

- **How they innovate**

Kenya has developed a variety of AI startups focusing on FinTech, health, agriculture, and logistics. M-Pesa created a successful precedent for mobile technology, which a new generation of tech entrepreneurs is continuing. There's a proliferation of incubators, accelerators, and investment capital available.

- **How they achieved sovereignty**

Data protection rights have been outlined by the Data Protection Act of 2019, though implementation has been a challenge. The government is firm on digital sovereignty while remaining open to foreign capital.

- **Global competition position**

Google, Microsoft, and IBM are some of the tech giants with branches in Kenya. Although they provide investment and knowledge, they pose a threat to local startups due to competition for talent and market share.

- **Tensions and trade-offs**

Kenya faces several growing pains as its innovation ecosystem matures. There is increasing conflict between a dynamic private sector and the government's regulatory approach. This has been noticeable over data privacy, taxation, and content moderation. A foreign-owned dominance is apparent in crucial markets, which erodes the country's autonomy. Owor et al. (2025) point out that a lack of training and a scattered policy framework limit the sector's ability to grow.

5.3. South Africa: The rights-based, ethical governance model

South Africa's strategy emphasizes human rights, ethics, and a move towards the decolonization of technology.

- **How they innovate**

The country founded the AI Institute of South Africa, and it sponsors research at various universities. This country lags behind Kenya in the development of an innovation ecosystem with limited venture capital and few high-growth companies.

- **How they achieved sovereignty**

POPIA establishes rights regarding data protection and constitutional rights on privacy and dignity, which provide a strong rights-based legal framework. Maimela et al. (2025) describe how efforts are being made to decolonize education in AI, though at a slower pace at Historically Black Universities.

- **Global competition position**

South Africa forms strategic alliances with international entities in areas such as research cooperation and industry partnerships. However, the rights-based and ethical focus may be viewed by foreign investors as creating uncertainty in regulation.

- **Tensions and trade-offs**

A rights-based strategy may put ethics at the core, but risks slower growth and lower investment. Mweha (2026) notes that successful governance should balance innovation with risk mitigation strategies. South Africa's strategy may be long-term sustainable, but it currently struggles with global competitiveness.

6. Discussion

6.1 Findings

No African nation successfully balances the triple tensions among innovation, sovereignty, and global competition. Each focuses on one dimension while compromising on the others and exposing itself to other risks: Mauritius, with a more sophisticated framework that increases dependency on its limited market, Kenya, through its ecosystem development, with dependence on foreign platforms, and South Africa, in relation to its rights-based sovereignty, with challenges to speed and attracting foreign investment. Such trade-offs are also evident across Africa; no single state has sufficient market size to build any kind of meaningful sovereignty, nor has any nation a capacity to attract foreign investment and innovation that do not impose unequal power structures. They also lack the ability to build complex ecosystems and thus depend heavily on foreign resources and models.

6.2 Introducing the Sovereign Innovation Framework

This leads to the proposed framework for 'Sovereign Innovation'. This approach relies on regional coordination and joint action in response to the tensions within the trilemma.

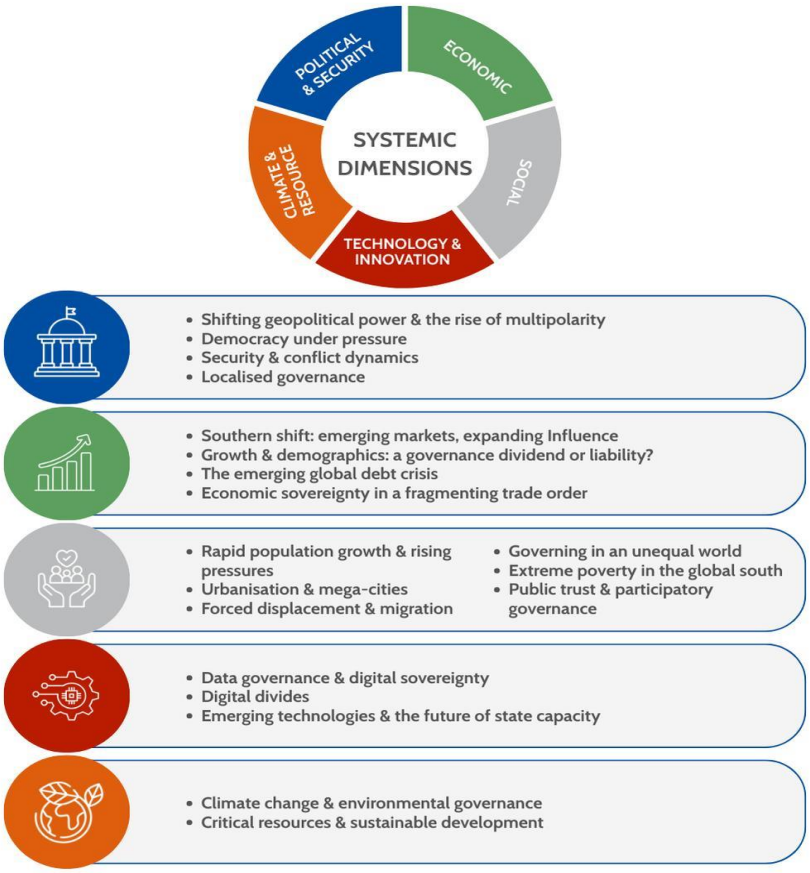

Figure 3: The Sovereign Innovation Framework

Description: layered diagram. The foundation is the strategic infrastructure of sovereignty; above this layer is regional integration as sovereignty; on top of it lies value-based innovation. Throughout the diagram runs the cross-cutting theme of leveraged global competition, while the overall theme guiding everything is African Union coordination.

Following the problems and shortcomings found in the current governance practices, this paper presents the 'Sovereign Innovation Framework', which integrates the various elements of the trilemma into a coherent model. In Figure 3, it can be seen that the framework adopts a stacked structure, where basic infrastructure supports regional sovereignty, which in turn enables innovation through value. Thus, for AI governance in Africa to be effective in a sustainable manner, it cannot be attained through ad-hoc national strategies, but through multi-level efforts.

Principle 1: Regional Integration as Sovereignty

Individual African states are too weak on their own, so the African Union (AU) and RECs are the way forward to achieve meaningful sovereignty. Shared sovereignty through the AU/RECs can include: unified regulatory standards to avoid fragmenting markets; continental AI data commons to enable African-generated data training; and a strong coordinated stance in global standards bodies. This is a way to build on the call from Baguma et al. (2023) for integrated capacity building assessment and on Ayana et al. (2024) for decolonisation of AI.

Principle 2: Strategic Infrastructure Sovereignty

Cloud infrastructure, data centers, and fiber optic networks; none of these can be a basis for any sovereignty claims without being a public good under the sovereignty of Africa's peoples. Otherwise, reliance on foreign data centers and companies cannot lead to actual sovereignty over data and innovation. What is called for is the following: investment in infrastructure based on open standards so as to diminish dependence on single vendors; regional data centers based in Africa for storage of African data under African jurisdiction; adequate public investment in ICT infrastructure, preventing increased digital divides across countries. As has been highlighted by Amankwah-Amoah et al. (2022) and Aryee et al. (2025), this type of infrastructure is critical for AI development and sovereignty.

Principle 3: Values-Based Innovation

Moving beyond "ethics washing" and looking towards authentic design guided by African values. This would involve system design informed by Ubuntu principles (community, mutual responsibility) for AI; local content production and local language models to cater to local users, etc. It would require designing governance frameworks based on local needs and priorities, not imported templates. Frimpong (2024) has identified how specific African contexts can inform AI attitudes, and Ayana et al. (2024) have talked about the relevance of decolonisation. Applying these concepts to system design allows African regions to innovate in a unique, indigenous fashion for potentially unique global markets.

Principle 4: Leveraged Global Competition

African states should, instead of being passive users of imported technology on globally prescribed terms, collectively leverage their significant market size to obtain favourable partnerships. This would mean: conditions on technology transfer agreements with foreign investors in return for market access; clauses on local content and joint venture creation to ensure transfer of know-how; representation on standard-setting bodies for the purpose of ensuring that global standards are inclusive and meet the needs of all countries. Bignami et al. (2025) warn that governance issues will have geopolitical dimensions; it is crucial to take advantage of one's market power without creating additional dependency on global powers.

6.3 Policy Recommendations

For the AU: Accelerate the implementation of the continent's AI strategy and mandate that member states adhere to a set of binding principles. Put in place a continental AI fund for infrastructure development and research; articulate a unified AU position for global AI governance discussions; establish a pan-African AI ethics framework compatible with international standards, yet grounded in African values. For individual African Governments: invest more in ICT infrastructure as a public good, not simply a private sector market. Education system reforms to develop national talent pipelines for AI, with an aim to counter the human capital limitations highlighted by Aryee et al. (2025); utilize public procurement as a lever to promote local AI solutions. Develop compatible data protection and AI regulations across different countries in alignment with AU/REC guidelines so as to enable harmonised frameworks. For RECs: Harmonise national frameworks of data protection and AI in order to reduce fragmentation and enable more attractive markets. Invest collectively in the infrastructure required for AI, so as to achieve economies of scale and to avoid building separate capacity where co-operation is possible. Create Centers of Excellence that pool resources together and share expertise among member states.

6.4 Challenges in Implementation

The 'Sovereign Innovation' framework is challenging to implement. The AU will require the political will of its members to delegate or share national powers in the name of long-term benefit rather than immediate national sovereignty. Member states have diverse levels of capacity (Ayana et al., 2024; Owor et al., 2025); all will need assistance to achieve capacity for sophisticated governance. Implementing such ambitious infrastructure plans would require considerable

resources. Furthermore, global powers might resist such regional cooperation if they fear loss of their market share and strategic interests. In spite of these potential setbacks, the risk of remaining fractured and continuing to fall victim to the neocolonialist tendency for Africa to play second fiddle in the global race for dominance in this powerful new technology is too great to ignore.

7. Conclusion

7.1 Summary

The argument of this paper has been that the task of formulating governance principles for AI in Africa involves navigating the critical dilemma of balancing the three concepts of innovation, sovereignty, and global competition. Analyses of emerging national AI policies in Mauritius, Kenya, and South Africa demonstrated that the tendency is for the prioritisation of one of the elements in each nation, thus exposing it to threats from foreign powers eager to exploit its weakness. Relying on 20 recent academic papers on the topic, the paper introduced a novel 'trilemma' framework to explain AI governance challenges and subsequently proposed a 'Sovereign Innovation' framework where regional integration leads to viable sovereignty through strategic investment in the foundational infrastructure for innovation, the grounding of AI system design in local values, and partnerships that aim to transfer technology rather than to create dependencies.

7.2 Contribution

This research contributes to three main areas: First, it provides an integrated analytical framework by synthesising disparate literatures on AI innovation, digital sovereignty, and global competition. The trilemma concept explicitly discusses the contradictions that each specific approach presents, instead of presenting sectoral or mono-dimensional viewpoints on the subject. Second, it carries out comparative analyses of three specific national policy approaches in Africa – the high-tech strategy of Mauritius, the innovation-driven model of Kenya, and the rights-based sovereignty discourse in South Africa-and discusses the implicit costs and vulnerabilities of each approach. Third, it establishes a practical framework that could help African policy makers move towards meaningful sovereignty within global competition through regional co-operation.

This analysis goes beyond the fragmented discourses on AI governance by consolidating political economy, technology governance, and regional strategy in a single framework and offers an empirical and policy-oriented research agenda for the future.

7.3 Limitations and Future Research

The study is based on available documentary evidence and academic literature rather than first-hand data collection, meaning that it lacks depth regarding on-the-ground implementation details of AI governance, the experiences of key stakeholders (policymakers, private companies, civil society organizations). Given the pace of technological and governance changes in AI, this research would require constant updating. There are several possible lines for future research: detailed empirical studies to gauge the real economic effects of each governance framework; a deep dive on the roles of civil society and community organizations in governing AI, focusing on the exercise of power and potential for democratic alternatives; targeted studies of AI applications and their governance across development sectors like health, agriculture, and education. In the African context, comparative studies with AI governance approaches in other parts of the Global South, such as in Latin America or Southeast Asia, will undoubtedly bring forth some lessons that Africa could learn or share, which are not encompassed by the focus of this paper on the continent.

7.4 Conclusion

Africa is at a tipping point. The governance choices made regarding AI will determine how the continent's development unfolds for decades to come. Passively accepting foreign technologies and governance frameworks is not sustainable and threatens to perpetuate existing patterns of dependency and neo-colonial exploitation. Similarly, individual fragmented approaches to nation-state competition are unlikely to provide real sovereignty or overcome the constraints of market size and investment capacity. The proposed 'Sovereign Innovation' framework advocates for joint action at the regional level, for the sharing of limited resources, and the building of collective capacity. Although implementation may be politically and economically challenging, the alternative is a continued failure to secure African peoples' right to self-determination in a world driven by digital technologies. The future prosperity of more than a billion Africans rests on Africa getting AI governance right; now is the time to act.

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