7TH AFRICA EMERGING MARKETS FORUM

ARTIFICIAL INTELLIGENCE IN THE WORKPLACE AND DEMOCRATIC GOVERNANCE IN AFRICA: RISKS, BENEFITS, CHALLENGES, AND OPPORTUNITIES

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1. Introduction

Conceptualized as non-human intelligence engineered to execute operations that typically require cognitive input of human intelligence (Eke et al. 2023; Arakpogun et al. 2021), artificial intelligence (AI) has emerged as a transformative force in computer science, redefining global socioeconomic and political dynamics. By augmenting operational efficiency and uncovering better digital opportunities, AI enables rapid information access and data-driven decision-making within increasingly complex commercial environments. Beyond the private sector, these technologies offer pathways to modernize state bureaucracies and achieve significant cost reductions (Awan et al. 2021). Its diverse applications, ranging from autonomous transport and virtual assistants to predictive analytics and robotic automation, are already reshaping manufacturing, healthcare, and finance and amplifying disparities (Azaroual, 2024). Projections suggest that AI will contribute $15.7 trillion to the global Gross Domestic Product (GDP) by 2030 (Mithi, 2024). In the workplace, AI promises to increase productivity while also threatening to replace humans in some jobs and complement them in others (Cazzaniga et al. 2024). In other words, AI's adoption can result in diverse labour market and governance outcomes across countries, particularly regarding workforce reallocation and inequality.

The rapid proliferation of these tools has raised significant concerns regarding the potential exacerbation of structural inequalities, the adequacy of existing regulatory frameworks, and the widespread disruption of traditional business and work models (Arakpogun et al. 2021). Despite such risks, AI has been integrated into corporate workplaces and public governance. Thus, igniting global discourse among policymakers and economists focused on balancing its promising prospects against its disruptive influence. For Africa, a region often defined by limited digital inclusion and institutional vulnerabilities (Diallo et al. 2025), participating in this technological shift is a developmental imperative. The adoption of will help Africa build the institutional capacity and the regulatory framework that can guarantee data security and privacy of citizens as well as mitigate the impact of cyber and national security (Arakpogun et al. 2021). It will also unravel and mitigate ethical concerns in Africa, such as digital colonialism, algorithmic bias, job displacement, linguistic diversity, and the risk of imposing foreign values that may undermine indigenous knowledge and social cohesion (Sule, 2026). Besides, the nature of AI promises to bring about fundamental socio-cultural changes in Africa including in areas such as political activities, poverty, environmental sustainability, transportation, agriculture, health care, education, financial transactions and religious and traditional belief systems (Eke et al. 2023). This study, therefore, investigates the multifaceted benefits, binding constraints, and emerging opportunities linked to the adoption of AI within the African workplace and its democratic governance systems.

There are many justifications for this study. Unlike existing studies, this research is a synthesis of the intersection of AI and the labour market and the interference of democratic governance. It elucidates strategic government intervention to improve digital skills for better AI-labour relationship and deployment of social safety nets for displaced workers to reduce the associated structural inequities. Furthermore, given that there are likely risks of value imposition through the adoption of AI, this research seeks to conceptualize pathways for establishing responsible,

indigenous-centered AI frameworks, to protect traditional knowledge systems and maintain communal stability while integrating foreign AI standards. These scenarios require robust government intervention to preserve socio-economic and political equilibrium. This study breaches the gaps.

1.1 The African Digital Landscape

The digital architecture across the continent has experienced substantial advancement in recent years. At the supranational level, strategic investments in subsea connectivity have yielded expansive fibre optic networks, such as the 10,000 km Eastern Africa Submarine Cable System (EASSY) and the 17,000 km SEACOM network linking Southern Africa and East Africa with Europe and Asia. Similarly, the 14,530 km West Africa Cable System (WACS) provides critical infrastructure for 15 nations (Nanfuka, 2022). Complementing these physical assets, the African Union's Digital Transformation Strategy for Africa (2020-2030) prioritizes digitally-enabled socio-economic growth as a continental imperative. National-level initiatives further reflect this trend: Kenya's Digital Economy Blueprint emphasizes infrastructure and data protection; South Africa's Fourth Industrial Revolution (4IR) Strategy targets the integration of advanced analytics into manufacturing and finance; and Nigeria's National Digital Economy Policy and Strategy (NDEPS) focuses on fostering innovation hubs and digital literacy (PECB, 2025). These coordinated efforts underscore a robust regional commitment to modernizing the digital landscape.

Nevertheless, within this emerging digital ecosystem, profound inequities persist regarding the accessibility and outcomes of technological innovation (Motadi, 2026). While 3G network coverage reached approximately 89 percent of the population in 2025, 5G availability remained limited to just 12 percent (Table 1). Connectivity data reveals that although internet penetration rose to 36 percent in 2025, it still lags significantly behind the global benchmark of 74 percent. Furthermore, despite 94 percent mobile network coverage, active internet participation remains constrained, with nearly two-thirds of the population remaining digitally isolated (Diagana and Wadagni, 2025). Among the regions, countries, and even within countries in Africa, there are also disparities in the digital landscape. Such disparities challenge the inclusive potential of the regional digital industry. Studies like Osakwe and Adeniran (2021) point to weak data governance as a primary bottleneck, while the World Bank (2024) identifies underdeveloped infrastructure, affordability barriers, a persistent gender gap, and inadequate regulatory frameworks as critical constraints to achieving a truly transformative digital economy.

Table 1: African Digital Landscape

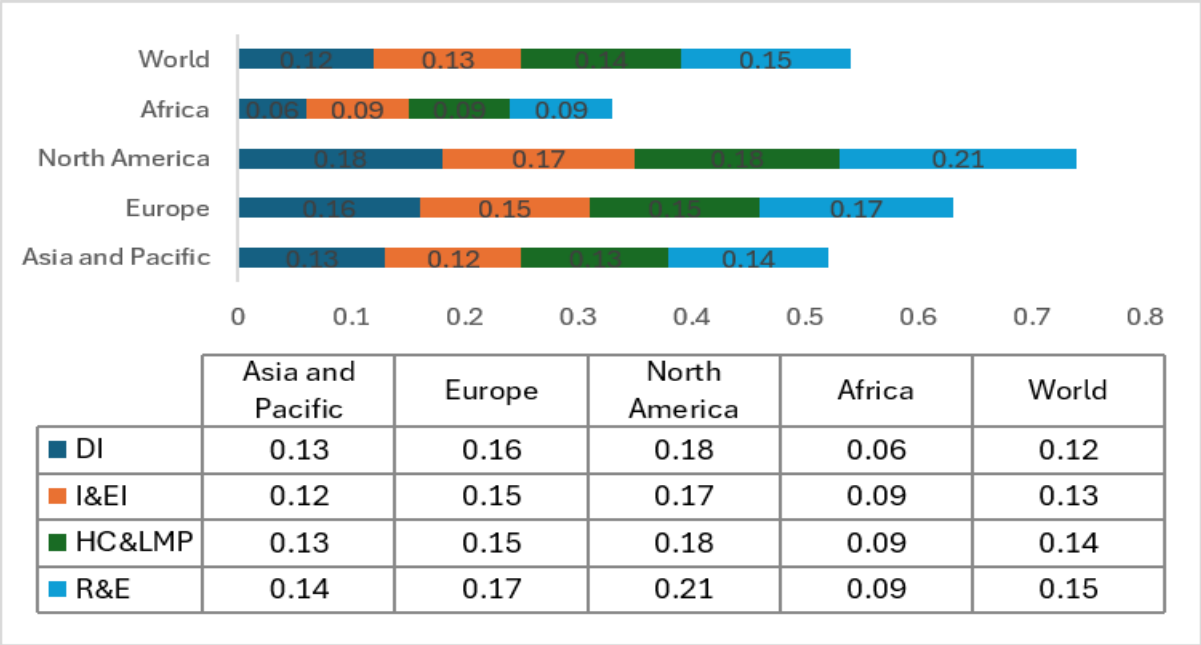
Year	Mobile Telephone subscriptions	Active mobile-broadband subscriptions	Mobile Network Coverage	3G mobile network Coverage	5G mobile network Coverage	Internet Penetration
2020	81.2	38.3	90.1	75.6	0.1	26.9
2021	83.7	39.9	91.4	78.9	0.9	29
2022	88.8	45.0	92.3	81.7	2.1	31.1

2023	91.4	46.5	93.1	84.2	5.8	32.3
2024	90.4	50.4	93.7	86.8	9.3	33.6
2025	91.7	55.5	94.1	88.8	11.8	35.7

Source: ITU World Telecommunication/ICT Indicators database. Version November 2025, for Facts and Figures 2025

1.2 AI Readiness and Preparedness in Africa

According to Cazzaniga et al. (2024), a country's level of preparedness plays a pivotal role when it comes to maximizing AI's benefits while managing downside risks. In agreement with this statement, this study adopts the IMF AI preparedness index (AIPI) which measures the AI preparedness of countries through the following indices, digital infrastructure (DI), innovation and economic integration (I&EI), human capital and labour market policies (HC&LMP), and regulation and ethics (R&E), to estimate the strategic AI preparedness of countries. The AI index in Figure 1 shows that Africa lags other regions in all indices and below the global average of 0.56, and that only three countries (Seychelles, Mauritius and South Africa) crossed the index average of 0.50%, with only 25 countries meeting the African Average of 0.34 (Figure 2). A comparison of Figures 1 and 2 shows Africa's AI follows digital penetration. In other words, improvements in Africa's digital ecosystem are very necessary for AI adoption in the continent. Mithi (2024), noted that the slow pace of AI preparedness is primarily rooted in the region's restricted capacity for systemic change, the nascent state of the technology sector, and critical deficits in specialized skills, physical infrastructure, and robust data ecosystems. Thus, an improvement in the AI landscape in Africa necessitates a parallel development in the digital landscape, especially infrastructure and digitally skilled labour force.



	Asia and Pacific	Europe	North America	Africa	World
DI	0.13	0.16	0.18	0.06	0.12
I&EI	0.12	0.15	0.17	0.09	0.13
HC&LMP	0.13	0.15	0.18	0.09	0.14
R&E	0.14	0.17	0.21	0.09	0.15

Figure 1: Global AI Preparedness Index. *Source: IMF Database, 2026*

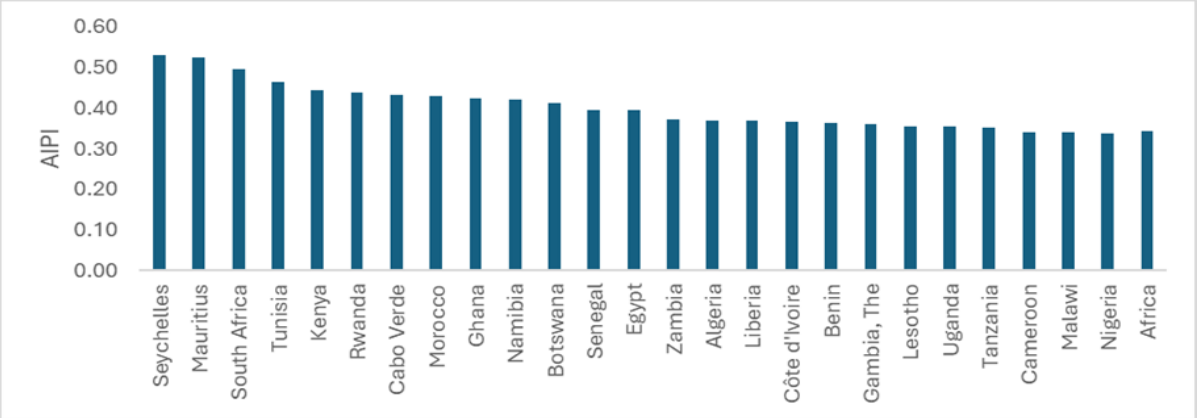


Figure 2: Africa AI Preparedness Index. *Source: IMF Database, 2026*

1. Distilling the Linkage between AI, the Labour Market, and Democratic Governance in Africa

While the transformative potential of AI for the global economy is widely acknowledged, its net impact on economic growth, human capital, and welfare remains unknown. This is because AI adoption is still at an early stage, and its ultimate effects will be shaped by a complex interplay of technological, institutional, and market factors. However, historical patterns from prior episodes of general-purpose technology diffusion points to the aggregate economic impact of AI will likely be determined by its uptake and deployment across two principal sectors: the private sector, as the primary engine of productive activity, and the public sector, as the architect of the regulatory and institutional environment within which markets and innovation systems operate.

This paper develops a conceptual framework that maps these two channels. As depicted in Figure 1, the framework identifies the workforce (private sector) and governance (public sector) channels as the primary pathways through which AI shapes economic outcomes. The workforce channel relates to how AI affects labour allocation either by augmenting human productivity or by substituting for it through automation. The governance channel focuses on the role of the public sector in creating an enabling environment for responsible AI deployment while guarding against its misuse as an instrument of democratic erosion and civil liberties suppression.

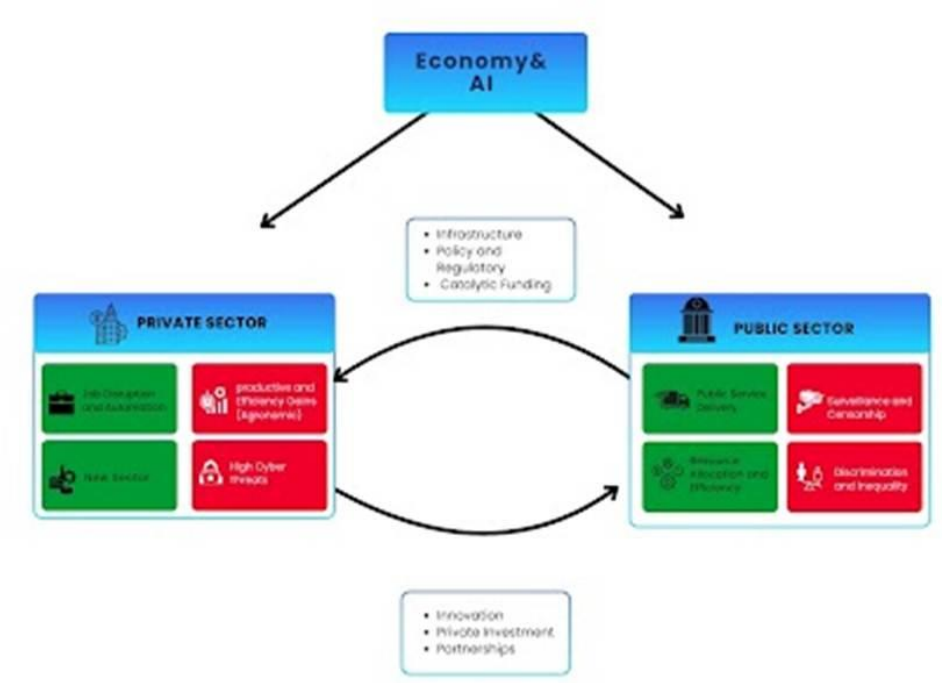


Figure 3: Authors

2.1 The Workforce Channel

Existing theory yields competing predictions regarding AI's labour market effects. Acemoglu (2025) formalises the tension between task augmentation and task automation, noting that the aggregate employment effect depends on the relative magnitude of productivity gains versus displacement. Early empirical evidence is consistent with both mechanisms. Anthropic (2025) reports that, across observed AI tool usage, tasks were split roughly evenly between augmentation and automation — 57 percent augmented compared with 43 percent automated. OpenAI (2026) similarly finds that only approximately 18 percent of jobs face high short-run automation risk. Nevertheless, emerging labour market evidence points to a measurable slowdown in entry-level hiring, consistent with early-stage automation-driven displacement at the lower end of the skill distribution.

The pace and extent of AI-driven automation will also vary considerably by sectors. Felten, Raj, and Seaman (2021) developed an index of AI occupational exposure that documents substantial structural and functional differences in automation risk across sectors. The financial sector and the ICT industry are among the most exposed to AI, while construction and agriculture are among the least exposed. This has important implications for Africa, where agriculture and informal, low-technology services dominate economic activity. Lower exposure implies a reduced risk of job displacement, but also more limited productivity gains from AI adoption. In the long term, AI could lead to new industries and entirely new classes of jobs similar to how the ICT industry emerged from the third industrial revolution, Africa risks being excluded if domestic technological capacity and institutions are not AI-ready.

2.2 The Governance Channel

The public sector's role is not limited to market facilitation. Governments are simultaneously the architects of AI governance frameworks and potential vectors of its misuse. On the enabling side, AI offers significant scope to improve public service delivery through process automation, fraud detection in procurement and public expenditure, and enhanced targeting of social programmes. African governments have become increasingly active in developing national AI strategies. The Global AI Observatory finds that nearly all African countries now have at least one AI-related policy framework in place.

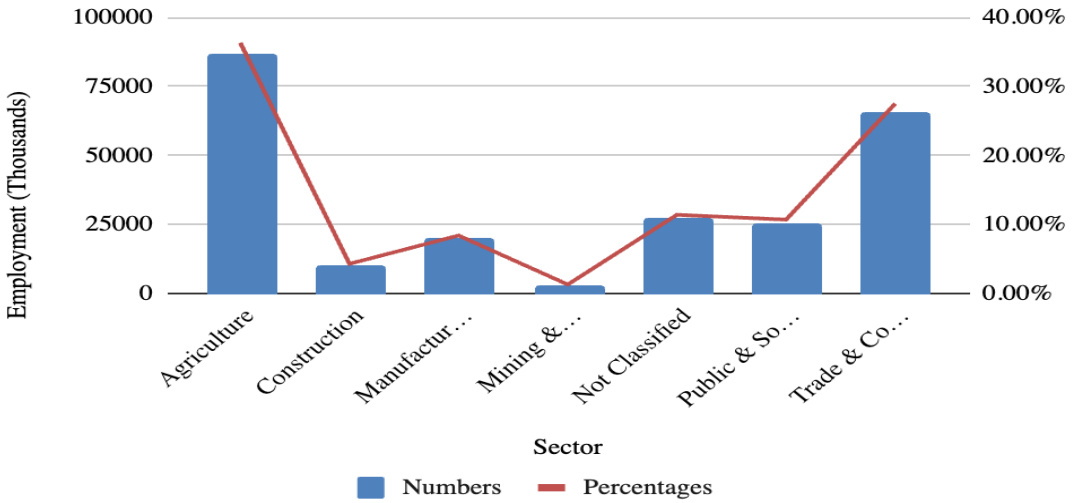
However, the governance risks are equally significant. The Global AI Index (2024) ranks African countries lowest on its responsible AI index, citing limited institutional safeguards around inclusion, workers' rights, and civil liberties. AI substantially lowers the cost of mass surveillance and makes tools for targeted harassment, disinformation, and political suppression more accessible to state and non-state actors alike. In contexts where accountability mechanisms are already weak these technologies risk amplifying existing tendencies toward authoritarian control rather than democratic deepening.

The framework also highlights the importance of public-private complementarities in determining AI's development trajectory. The public sector has a crucial role in providing macroeconomic and digital infrastructure, establishing inclusive governance frameworks, and offering catalytic financing to support early-stage domestic innovation ecosystems. The private sector, in turn, can bring resources, technical expertise, and operational capacity to bear on challenges that exceed the public sector's implementation capacity including AI-specific cybersecurity threats and infrastructure investment gaps.The remainder of this paper expands on each element of this framework, examining the workforce implications, and democratic governance outcomes across the African continent.

2. African Labour Market and AI Trends

To further discuss the labour-market implications of AI exposure, it is important to consider labour-market trends across Africa, as well as trends in African labor markets' exposure to artificial intelligence. A comprehensive labor market analysis was conducted using the 2024 ILOSTAT sectoral employment dataset on employment by sector across 14 African countries. In Figure 4, Agriculture remains the largest employer in this cohort, providing livelihoods for 36.3% of the workforce. The second pillar of employment is Trade and Commercial Services, which accounts for 27.5%. Together, these two sectors account for nearly 64% of workers. This stands in stark contrast to other sectors: for instance, Manufacturing and Construction combined account for only 12.7%, while Public & Social Services make up 10.7%.

Figure 4: Total Employment by Sector in Africa, 2024



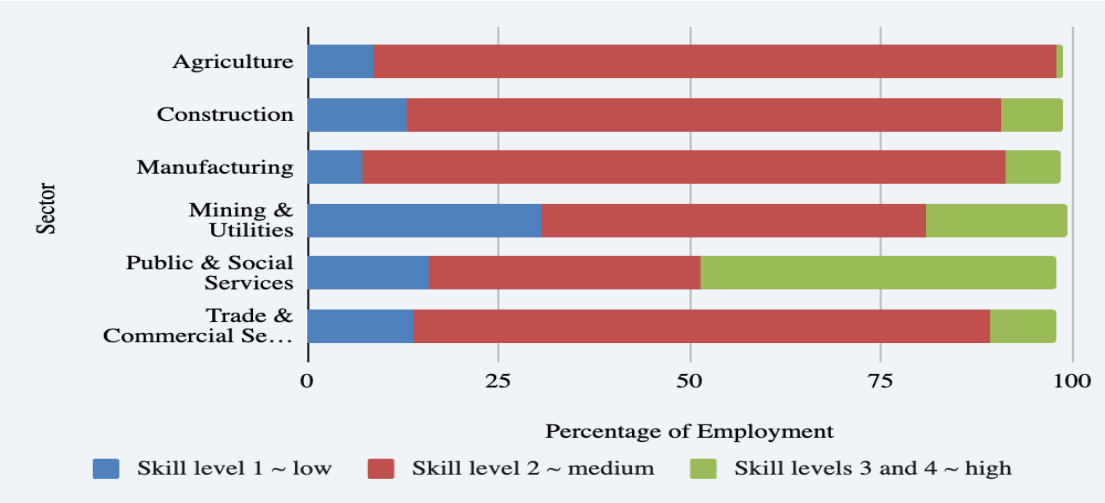
Source: ILOSTAT

While the broad sectoral landscape is defined by the weight of agriculture and trade, a deeper look at Figure 5, the Skill Level Distribution by Sector in Africa (2024), reveals that the functional engine of this workforce is the Skill Level 2 (Medium) category. The medium skill tier is the primary workforce component in the most populous industries, such as Agriculture, Construction, Manufacturing, and Trade, where it consistently accounts for the vast majority of the labour force. In the dominant Agriculture sector, approximately 89.2% of workers operate at this medium-skill level, which includes the following ISCO-08 occupations: service and sales workers; skilled agricultural, forestry, and fishery workers; craft and related trades workers; plant and machine operators/assemblers; and clerical support workers. A similar trend is evident in Trade and Commercial Services, where 75.4% of the sector drives the marketplace's daily exchanges. However, a sharp contrast emerges when examining the distribution of high-level expertise in the Public & Social Services sector. Despite employing fewer workers overall, it has a high concentration of highly skilled and knowledgeable professionals, with 46.4% of its workforce categorised at Skill Levels 3 and 4. These high-skill occupations include managers, professionals, technicians, and associate professionals under the ISCO-08 classification. This concentration of high-skill workers in the public & social services, compared with the large number of medium-skill occupations in agriculture, implies that while the present economy depends on vocational labourers, future growth will rely on both upgrading the skills of medium-skilled workers in these traditional sectors and transforming the economic structure of agriculture, so these sectors can actually create and sustain high-skill jobs. Without this structural transformation, training workers may produce skills mismatches where workers are qualified, but the sector's economic structure cannot absorb those skills productively.

Expanding this analysis to a regional level reveals that these skill imbalances are not uniform across the continent, with distinct regional profiles shaping economic potential. As shown in Figure 6, North Africa and Southern Africa possess the highest concentrations of high-skill labour at 22.3% and 20.7%, respectively; however, their overall profiles differ significantly, with North Africa having 72.0% medium-skill and 5.7% low-skill labour, while Southern

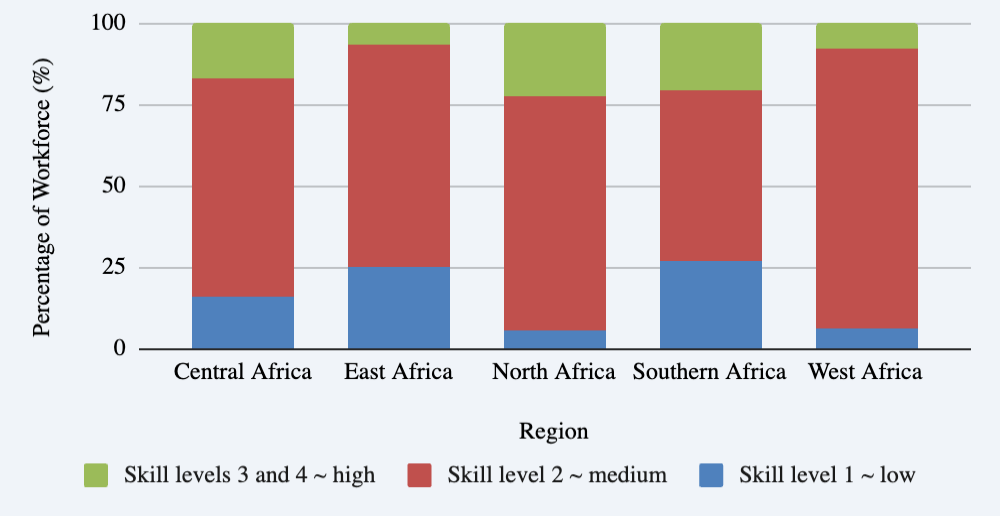
Africa consists of 52.5% medium-skill and 26.8% low-skill labour. West Africa stands out, with an overwhelming 85.6% of its workforce in the medium-skill tier, while high- and low-skill labour account for just 8.1% and 6.3%, respectively. This suggests a massive vocational engine, likely centered on trade and services, but also indicates a much steeper climb in integrating high-level specialized talent into the broader economy. Conversely, East Africa exhibits a profile dominated by 68.6% medium-skill and 24.7% low-skill labour, with only 6.6% in the high-skill tier. The high proportions of low-skill labour in Southern Africa (26.8%) and East Africa (24.7%) correspond primarily to elementary occupations under ISCO-08, such as cleaners, food-preparation assistants, and refuse workers. For these regions, the transition to a high-innovation economy requires not just bridging the gap to high-level skills but also significant investment to elevate the foundational skill levels of roughly a quarter of their workforce.

Figure 5: Skill Level Distribution by Sector in Africa (2024)



Source: ILOSTAT

Figure 6: Skilled Level Distribution by Region



Source: ILOSTAT

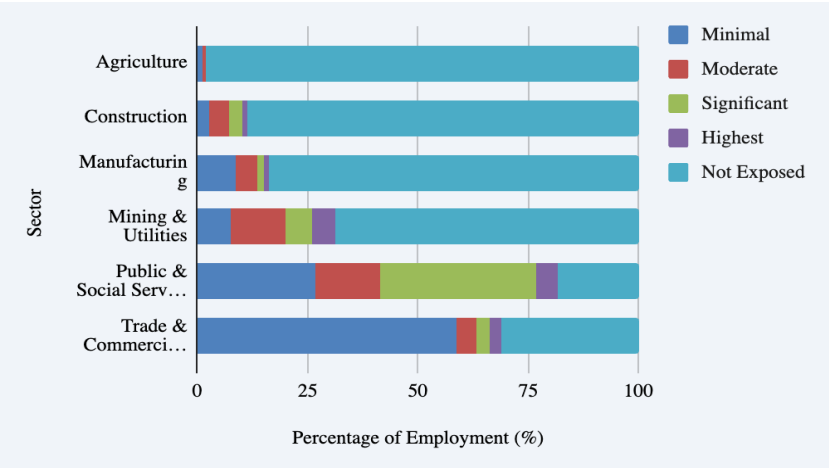
3.1 The exposure of African labour markets to artificial intelligence

To further discuss the labour-market implications of AI exposure, it is important to examine trends in African labour markets' exposure to generative AI. Using ILO data on employment and Generative AI (Gen AI) exposures, the AI exposure index was estimated following the methodology of Gmyrek et al. (2025). Based on this framework, occupations exhibit a spectrum of GenAI exposure classified into four increasing levels of disruption, alongside unexposed categories: Exposure Level 1 (Minimal), Exposure Level 2 (Moderate), Exposure Level 3 (Significant), Exposure Level 4 (Highest), and Not Exposed. At a minimal level of exposure, occupations are heavily insulated from disruption because their core tasks often rely on non-routine manual execution, physical dexterity, or intense emotional intelligence, areas where GenAI currently has no operational interface. This insulation is further reinforced by the inherent need for human input in complex and variable tasks, the practical limitations of current GenAI capabilities, and broader societal and infrastructural barriers to full automation. In high-exposure occupations, a large share of core tasks involves structured data processing, text generation, administrative routines, or communication-focused activities; areas where GenAI has a strong operational interface and growing capabilities. These roles have high automation potential and a strong capacity to evolve and take on new tasks through the innovative application of GenAI and other digital tools. These exposure gradients provide a clear basis for analysing how Gen AI will reshape labour demand, task composition, and policy priorities in African economies.

Figure 7 illustrates the relationship between employment levels and Gen AI exposure across key economic sectors. The agricultural sector, which employs the largest share of the workforce (36.34%), remains largely insulated from generative AI, with 97.99% of workers in occupations reporting no exposure. This resilience reflects the labour-intensive, physical nature of farming; tasks that current AI technologies cannot easily replicate due to high cost. In contrast, the second-largest sector, Trade & Commercial Services, shows a clear shift toward AI integration; while 31.23% of its workforce remains unexposed, a significant majority

(58.85%) already faces "Minimal" exposure. Interestingly, sectors with smaller workforces often experience higher intensities of AI impact. For instance, Public & Social Services, which accounts for 10.71% of the workforce, records the highest level of "Significant" exposure across all sectors at 35.09%. Finally, while Manufacturing and Construction mirror agriculture in having high percentages of unexposed workers (83.62% and 88.80%, respectively), they also exhibit notably higher rates of moderate and significant exposure than the primary sector. The statistics show an important finding: manual labour remains the backbone of the leading agricultural industry due to the work's physical nature. In other sectors, such as trade and services, which require cognitive tasks, there is greater AI exposure than in sectors that require labour-intensive tasks.The sectoral patterns across the 14 African countries are consistent with AI exposure indexes constructed in other studies. For instance, Felten et al. (2021) developed an index of AI occupational exposure (AIOE) that similarly found higher exposure in finance and ICT, and lower exposure in agriculture and construction. It is worth noting that the Felten et al. (2021) AIOE index was constructed using U.S. occupational task data and incorporates a broad set of AI applications, including those now classified as Generative AI, as well as other types. Although the two indices are not directly comparable in magnitude or coverage, the consistent sectoral patterns provide cautious support for the robustness of these exposure findings across different contexts and methods.

Figure 7: AI Exposure Distribution by Sector (2024)

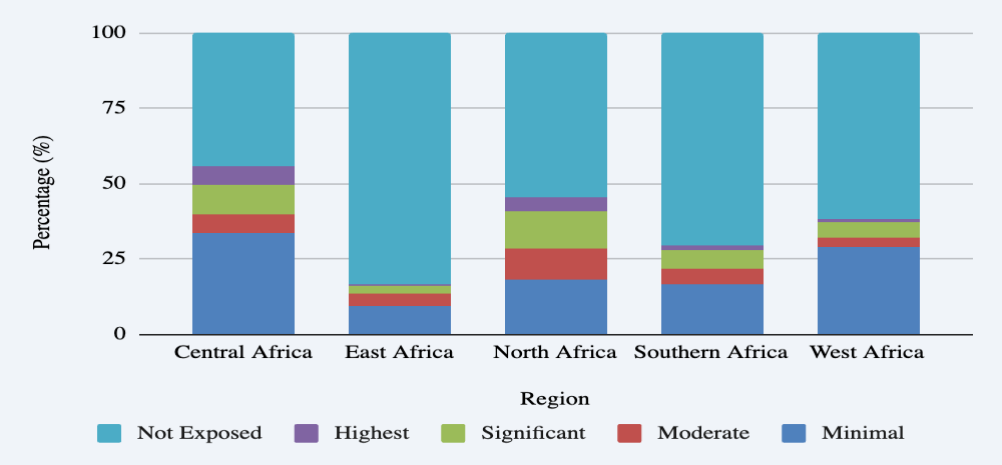


Source: ILOSTAT

The distribution of Gen AI exposure across various regions in Africa is illustrated in Figure 8, revealing distinct structural differences across the continent. Looking first at the 'Not Exposed' category, East Africa leads the continent with 83.37% of its workforce in occupations unaffected by Gen AI, followed by Southern Africa at 70.83% and West Africa at 61.75%. In contrast, North Africa (54.72%) and Central Africa (44.41%) report significantly lower shares of unexposed workers, indicating a higher baseline of technology integration across their workforces. For 'Minimal' exposure, Central Africa exhibits the highest share at 33.64%, followed closely by West Africa at 28.86%, North Africa at 18.26%, Southern Africa at 16.32%, and East Africa at 9.36%. In the 'Moderate' exposure tier, North Africa leads at 10.34%, while the remaining regions show lower, relatively compressed levels: Central Africa (6.16%), Southern Africa (5.34%), East Africa (3.95%), and West Africa (3.09%). When

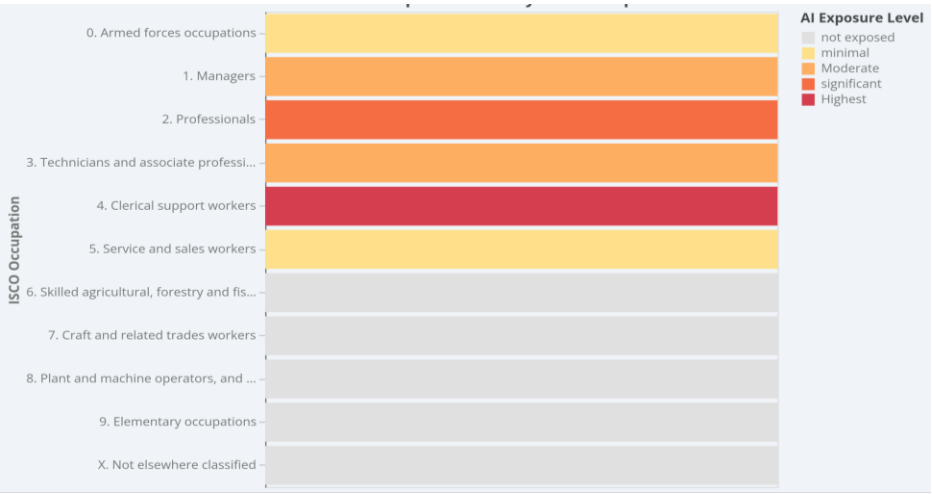
examining higher levels of exposure, North Africa and Central Africa emerge as the clear leaders. In the 'Significant' exposure category, North Africa records 12.00%, followed by Central Africa (9.65%), Southern Africa (6.21%), West Africa (5.01%), and East Africa (2.64%). For 'Highest' exposure, Central Africa leads with 6.15%, followed by North Africa (4.69%), Southern Africa (1.30%), West Africa (1.29%), and East Africa (0.68%). Cumulatively, North Africa shows a combined 'Significant' and 'Highest' exposure of 16.69%, the highest on the continent, followed closely by Central Africa at 15.79%, while Southern Africa (7.51%), West Africa (6.31%), and East Africa (3.32%) show much lower combined high-level exposure. This aligns with previous analyses identifying North and Central Africa as leaders in high-skill occupations, such as data, administration, and professional services, where Gen AI is already intersecting with daily tasks. Conversely, the high 'Not Exposed' rate in East Africa is closely tied to the region's concentration of low-skill, manual-intensive occupations such as small-scale agriculture and physical trades. Intuitively, regions that have historically led in high-skill, cognitive occupations show high AI exposure, whereas regions dominated by manual labor exhibit low AI exposure due to the physical nature of their work.

Figure 8: AI Exposure Distribution by Region (2024)



Source: ILOSTAT

Figure 9: GenAI Exposure Levels by ISCO Occupation Category



Source: Classification based on ILOSTAT (2024) employment data and Gmyrek et al. (2025) AI exposure gradient by occupation.

3.2 Employment Implications of AI Exposure

3.2.1. Substitution and Complementarity Effects Across Sectors

The implications of AI exposure for employment could have substitution effects by reducing employment, or complementary effects that enhance workers' performance, thereby increasing employment. This builds on Gmyrek et al. (2025), which classifies occupations based on workers' tasks with respect to their automation potential. For occupations where core job duties demand physical dexterity, non-routine manual execution, or intense emotional intelligence, AI faces strict functional boundaries, leaving these roles with minimal to no exposure. Conversely, jobs anchored in structured data processing, administrative routines, text generation, or highly codifiable communication have a deep operational interface with AI, positioning them in the significant-to-highest exposure gradients. For workers in low-exposure occupations, employment is likely to remain stable or shift toward tasks that exploit human-only capabilities, preserving job counts even as task composition evolves. However, roles facing high AI exposure may experience net employment declines when substitution dominates, or net gains when complementary reskilling and task redesign unlock productivity that firms translate into additional hiring (Pizzinelli et al., 2023). Therefore, at these various levels of task automation and AI exposure, the net impact on employment will depend on the balance between task substitution and task complementarity, which are shaped by occupation-specific task composition of the labour force. However, the characteristics of this substitution-complementarity effect are not uniform across an economy as they are shaped by whether work is organised within the formal or informal sector.

Within the formal sector, agriculture, along with manufacturing and construction, which is characterised by high physical-labour intensity, remain comparatively insulated from AI exposure. This is consistent with the broader argument that core tasks in these sectors, being physically embedded and resistant to codification, sit outside the operational reach of current

AI systems (Gmyrek et al., 2025). Consequently, immediate employment effects from AI-driven automation are likely to be limited in these sectors, since their central tasks are not readily reducible to the structured, rule-based processes AI systems are best suited to perform. In contrast, the formal economy's service-oriented sectors, including public and social services and trade and commercial services, appear considerably more exposed to AI (Gmyrek et al., 2025). This pattern aligns with the nature of the tasks these sectors typically involve, data processing, administrative coordination, and professional or client-facing services, domains in which AI is already interacting closely with daily work routines. The employment effect within these sectors is therefore mixed, depending on whether particular occupations can harness AI for innovation and task transformation rather than being displaced by it outright.

Beyond the formal sector, evidence on AI's implications within the informal economy remains limited relative to the formal sector, though a growing body of work has begun to address it. Research shows that AI projects targeted to informal sector workers enhance food security, augment agricultural productivity, and improve rural livelihoods (GPAI, 2025). Kolade et al. (2025) report that within the informal economy AI has substantial potential to drive innovation as it facilitates the development of new products and services, allowing microenterprises to differentiate themselves in competitive markets with generative AI models. This allows informal workers to showcase and sell their products or services to a wider audience, with AI algorithms personalizing recommendations and enhancing user experiences, leading to increased sales and job opportunities (Ogada et al., 2024). Thus, AI has the potential to increase employment, create new jobs, and improve the economy by driving new business sectors and enhancing existing goods and services.

3.2.2. Risks and Concerns Arising from AI Exposure

Within the formal sector, clerical and administrative support roles appear more susceptible to substitution, given the highly codifiable nature of their core tasks, whereas professions such as law and adjudication, despite considerable AI exposure, may instead experience productivity gains if practitioners are equipped with the skills to integrate AI meaningfully into their work (Pizzinelli et al., 2023). However, without coordinated reskilling and upskilling programmes a compounded displacement risk could emerge: workers displaced from physical labour by automation may find that the administrative and service-sector roles that would traditionally have absorbed them are simultaneously being reshaped or reduced by AI adoption elsewhere in the formal economy (Giwa & Ngepah, 2024).

This compounded displacement risk is further deepened as the informal economy, which has historically absorbed labour shed from the formal sector, is itself undergoing an uneven AI-driven transformation. Yet the innovation and market-access gains associated with generative AI adoption are not evenly distributed across informal activities. The integration of Artificial Intelligence (AI) into Africa's informal sector, while offering potential benefits, therefore also carries significant risks of job displacement and loss across various traditional roles. Those able to use generative AI for product design or online sales, are better positioned to capture these benefits, however, AI-driven automation and robotics can replace manual labor in small-scale manufacturing, cottage industries, and informal workshops (Ogada et al., 2024). In addition,

insufficient infrastructure is a significant restricting factor as a result of limiting access to consistent internet and digital devices, tools needed to utilize AI in their work. The digital divide restricts opportunities to acquire new skills, trapping informal actors in cycles of low-value entrepreneurial activities and face higher risk of job displacement (Kolade et al., 2025). Furthermore, governments in the region have primarily focused on promoting economic diversification through AI rather than protecting employees whose work autonomy and jobs are affected by these technologies (Bischoff et al., 2024). Evidence shows that concerns regarding bias, privacy, inclusivity, and human oversight could hinder equitable service delivery and prevent safeguards for citizens' rights (Pulijala, 2024; Tao, 2025). Therefore, the Government has a significant role to play in minimizing the risks associated with AI adoption and evaluating it through multiple lenses, including efficiency and democratic governance.

3. AI and Democratic Governance in Africa

Artificial intelligence (AI) is increasingly reshaping democratic governance across Africa by transforming how governments design, deliver, and manage public services. Across the continent, AI-powered technologies are being deployed for citizen registration, poverty identification, social protection targeting, fraud detection, tax administration, healthcare management, disaster response, and other data-driven public services, offering significant opportunities to improve administrative efficiency, transparency, accountability, and evidence-based policymaking (African Union [AU], 2024; Cazzaniga et al., 2024; Diallo et al., 2025). These innovations have the potential to promote more inclusive governance by expanding access to essential public services, reducing administrative leakage, strengthening fiscal management, and improving governments' responsiveness to citizens' needs. However, the same technologies also introduce significant risks, including AI-enabled disinformation, cybercrime, algorithmic bias, mass surveillance, digital exclusion, and unequal access to digital infrastructure, which may reinforce existing socio-economic inequalities and weaken democratic institutions where appropriate governance safeguards are absent (Arakpogun et al., 2021; Eke et al., 2023; CIPESA, 2025). Consequently, AI represents both an opportunity for inclusive development and a source of exclusion, depending on how governments design, deploy, and oversee it.

Against this backdrop, the impact of AI on democratic governance in Africa is neither predetermined nor technologically deterministic; rather, it largely depends on the institutional, legal, and policy choices made by African governments. Effective data governance, transparent and contestable algorithmic decision-making, equitable digital infrastructure investment, robust cybersecurity, ethical AI regulation, and accountable electoral institutions determine whether AI strengthens public trust, democratic participation, and inclusive socio-economic development or instead exacerbates inequality, concentrates political and economic power, and erodes electoral integrity and civic freedoms (African Union, 2024; Oxford Insights, 2025; INTERPOL, 2025). This section therefore examines AI's evolving role in democratic governance, drawing on evidence from selected African countries, including Rwanda, Kenya, Nigeria, and South Africa, to critically assess how AI serves as a fundamental tool for fostering

inclusive governance, improving public service delivery, and advancing sustainable democratic progress, while also addressing rising risks such as cybersecurity threats and digital authoritarianism.

4.1 The Institutional Architecture of African AI Governance

4.1.1 Continental Aspirations and National Realities

The Continental Artificial Intelligence Strategy articulates an Africa-centric, development-focused vision organized around five focus areas, namely harnessing AI's benefits, building capabilities, minimizing risks, stimulating investment, and fostering cooperation, which are operationalized through fifteen action areas (African Union, 2024). Implementation is phased. Phase I, covering 2025 to 2026, prioritizes governance structures, national AI strategies, resource mobilization, and capacity building, while Phase II, from 2028 onward, focuses on implementing core projects informed by a 2027 review (African Union, 2024; Future of Privacy Forum, 2024). The Strategy was adopted alongside the African Digital Compact and builds on prior instruments, including the Digital Transformation Strategy 2020 to 2030, the AU Data Policy Framework, and the Malabo Convention.

National realities are considerably more heterogeneous than the continental blueprint implies. A first-mover cohort comprising Egypt, Rwanda, Mauritius, Senegal, Benin, Nigeria, and Algeria has adopted national AI strategies or policies, while South Africa, Kenya, Ghana, Ethiopia, Morocco, Tunisia, and Tanzania are at an advanced stage of formulation (Future of Privacy Forum, 2024). Egypt ranked first in Africa in the Oxford Insights Government AI Readiness Index 2025, reflecting sustained institutional investment (Oxford Insights, 2025). Nigeria has established the National Center for Artificial Intelligence and Robotics and launched N-ATLAS, a government-backed multilingual large language model trained in Yoruba, Hausa, Igbo, and Nigerian-accented English, signaling an ambition to shape AI in African languages (Ekwealor, 2025). South Africa's draft National AI Policy Framework seeks to attract an estimated USD 3.7 billion in AI investment by 2030 and to position the country as a continental AI hub. Table 4.11 summarises selected national instruments, and Figure 4.11 situates them within the wider multi-level architecture.

Table 4.11. Selected national AI governance instruments in Africa, 2019–2026

Country	Instrument and year	Distinctive emphasis
Egypt	National AI Strategy (2021, updated 2025)	State-led capability building, AI diplomacy, first in Africa on the 2025 Government AI Readiness Index
Rwanda	National AI Policy (2023)	Only national policy instrument, responsible AI adoption, Kigali as a regional testbed
Mauritius	AI Strategy (2018)	Early mover, digital hub positioning built on 88 percent internet penetration

Nigeria	National AI Strategy (2024)	NCAIR, N-ATLAS multilingual LLM, AI Fund with private partners
Senegal	National AI Strategy (2023)	Francophone leadership, data governance alignment with the Malabo Convention
Benin	National AI and Big Data Strategy (2023)	Adaptation of existing institutions rather than new regulatory bodies
South Africa	Draft National AI Policy Framework (2025)	Targets USD 3.7 billion AI investment by 2030, continental AI hub ambition
Kenya	National AI Strategy (2025)	Innovation ecosystem focus, alignment of data protection and AI oversight

Source. Compilation based on African Union (2024), Future of Privacy Forum (2024), and Oxford Insights (2025).

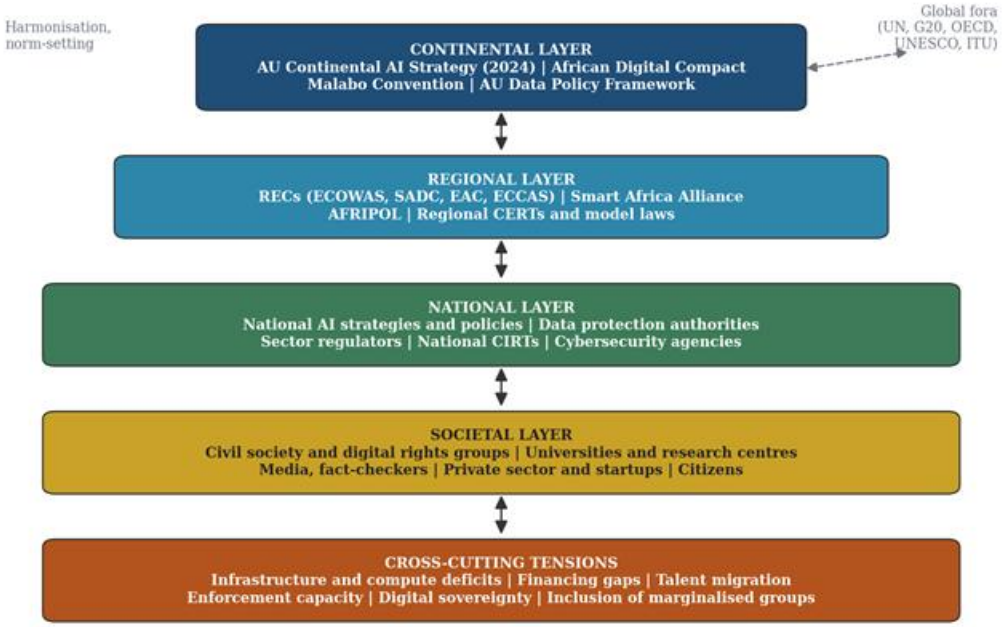


Figure 4.11. The multi-level architecture of AI governance in Africa
Source. Conceptualization based on African Union (2024) and Gwagwa et al. (2020).

African AI governance is best characterized as a nested, multi-level system in which authority is distributed rather than hierarchical, as depicted in Figure 4.11. The continental layer supplies norms and coordination goods, including the AU Strategy, the Digital Compact, and continental dialogues such as the High-Level Policy Dialogue on AI, whose 2025 communique declared AI a strategic priority and committed member states to shared investment in infrastructure, datasets, compute, and skills (African Union, 2025). The regional layer, comprising the Regional Economic Communities, the Smart Africa Alliance, and AFRIPOL, translates continental norms into model laws, interoperability frameworks, and operational cooperation. The national layer holds the decisive instruments of statutes, regulators, budgets,

and procurement, while the societal layer of universities, civil society, media, and enterprise supplies both innovation and accountability.

4.1.2 Multi-Level Governance and Regional Coordination

The comparative politics of this arrangement matter. Multi-level designs economise on scarce national capacity by allowing smaller states to import regional standards rather than author their own, a logic visible in ECOWAS and SADC model frameworks for data protection and cybercrime. Yet the same design produces coordination costs and accountability gaps when layers move at different speeds, as the Malabo experience has shown. Effective regional coordination also requires an empirical backbone. The AU's planned African AI readiness index and monitoring portal, together with proposals for an African AI observatory to track the social implications of deployment, represent necessary investments in the informational infrastructure of governance (African Union, 2024; Effoduh, 2024).

4.1.3 Regional Cooperation and the Malabo Convention

The African Union Convention on Cyber Security and Personal Data Protection, adopted at Malabo in June 2014, is the continent's flagship legal instrument, integrating electronic transactions, personal data protection, and cybercrime within a single treaty (African Union, 2014). Mauritania's fifteenth ratification after nine years led to the regime's entry into force on 8 June 2023. By late 2025, only 16 of 55 member states had ratified, leaving several of Africa's largest digital economies, such as Nigeria, Algeria, and, until recently, South Africa and Kenya, outside the framework. (Chatham House, 2025). Explanations converge on four factors, namely the prior existence of national data protection laws aligned with global templates, the awkward coupling of cybersecurity and data protection within one instrument, provisions drafted in 2011 that predate cloud computing, cross border data flow, and AI concerns, and the absence of a dedicated AU oversight mechanism to drive ratification and implementation (Diplo Foundation, 2025; Chatham House, 2025).

4.2 Cybersecurity Governance and Digital Sovereignty

4.2.1 Institutional Models and Capacity Gaps

Cybersecurity has become the operational core of digital sovereignty in Africa, since the credibility of every AI-enabled public service ultimately rests on the security of the underlying data and infrastructure. The ITU Global Cybersecurity Index 2024 records genuine progress. Six African states, namely Mauritius, Egypt, Ghana, Kenya, Rwanda, and Tanzania, attained Tier 1 role-modeling status, with Mauritius and Egypt achieving full scores across the legal, technical, organizational, capacity development, and cooperation pillars (ITU, 2024). Table 4.21 profiles this cohort. Yet more than half of African countries remain below the global average score of 65.7, and most are in the establishing and evolving tiers, where digital service expansion outpaces protective capability (ITU, 2024).

Table 4.21. African countries in Tier 1 of the ITU Global Cybersecurity Index 2024

Country	Notable institutional strengths
Mauritius	Full score, mature CERT, comprehensive cybercrime and data protection legislation, active international cooperation
Egypt	Full score, Supreme Cybersecurity Council, sectoral CERTs, sustained capacity development programmes
Ghana	Cyber Security Authority with licensing powers, dedicated cybercrime units, and strong regulatory oversight
Kenya	National Cybersecurity Centre, KE-CIRT, computer misuse and data protection statutes
Rwanda	Coordinated national digital strategy, workforce development, and secure government infrastructure
Tanzania	TZ-CERT, harmonized legal reforms, and expanding organizational measures

Source. Compilation based on ITU (2024)

Beneath these rankings, INTERPOL's 2025 Africa Cyberthreat Assessment exposes severe operational deficits. Only 30 percent of surveyed African member countries maintain a national incident reporting system, 29 percent a digital evidence repository, and 19 percent a cyberthreat intelligence database, while 75 percent judge their legal frameworks and prosecution capacity inadequate, 86 percent report deficient international cooperation capability, and 89 percent describe public-private cooperation as needing significant or some improvement (INTERPOL, 2025). Figure 4.21 visualizes this capability profile. The institutional lesson is that formal commitment, measured by indices, and functional capability, measured by operational systems, are diverging, and that closing the gap requires investment in unglamorous infrastructure such as evidence chains, reporting portals, and trained prosecutors rather than in strategy documents alone.

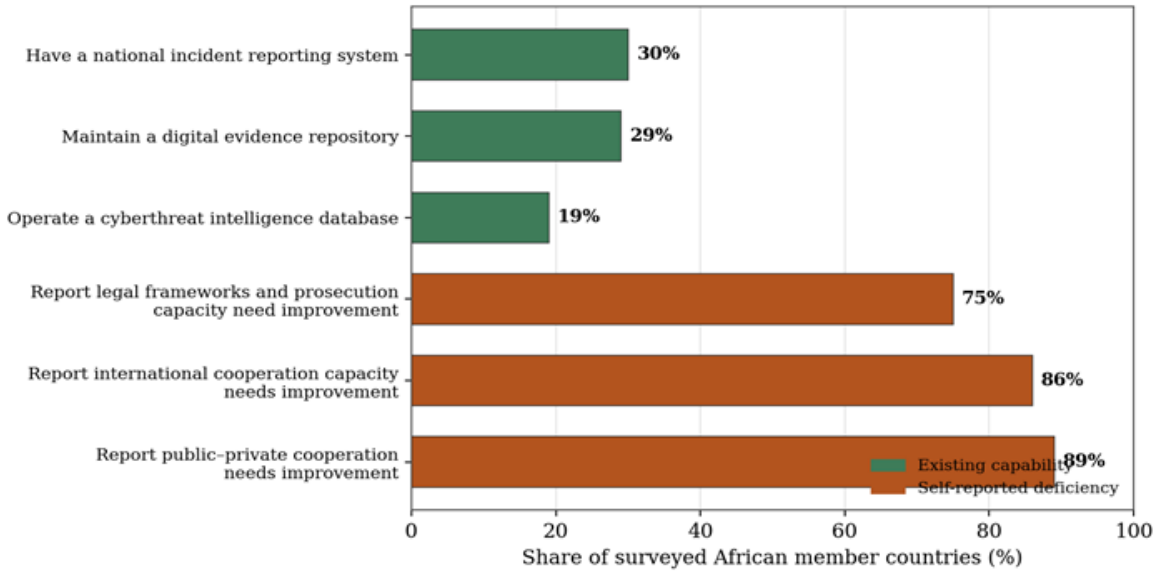


Figure 4.21. Cybercrime response capabilities and self-reported deficiencies in African states, 2025

Source. Constructed based on data from INTERPOL (2025).

4.2.2 AI Accelerated Cybercrime and Resilience

The threat landscape is expanding in both scale and sophistication. Two-thirds of African INTERPOL member countries report that cyber-related offenses constitute a medium-to-high share of all crime, and in Western and Eastern Africa, cybercrime now accounts for more than 30 percent of reported crime (INTERPOL, 2025). Cumulative financial losses from cyber incidents across the continent between 2019 and 2025 are estimated to exceed USD 3 billion, with finance, healthcare, energy, and government among the hardest-hit sectors (INTERPOL, 2025). Ransomware detections concentrate in the most digitized economies, as Figure 4.2.2 shows, with South Africa recording 17,849 detections and Egypt 12,281 in 2024, followed by Nigeria and Kenya (INTERPOL, 2025). High-profile incidents, including the breach of Kenya's Urban Roads Authority and intrusions into Nigeria's National Bureau of Statistics, illustrate the exposure of critical public infrastructure.

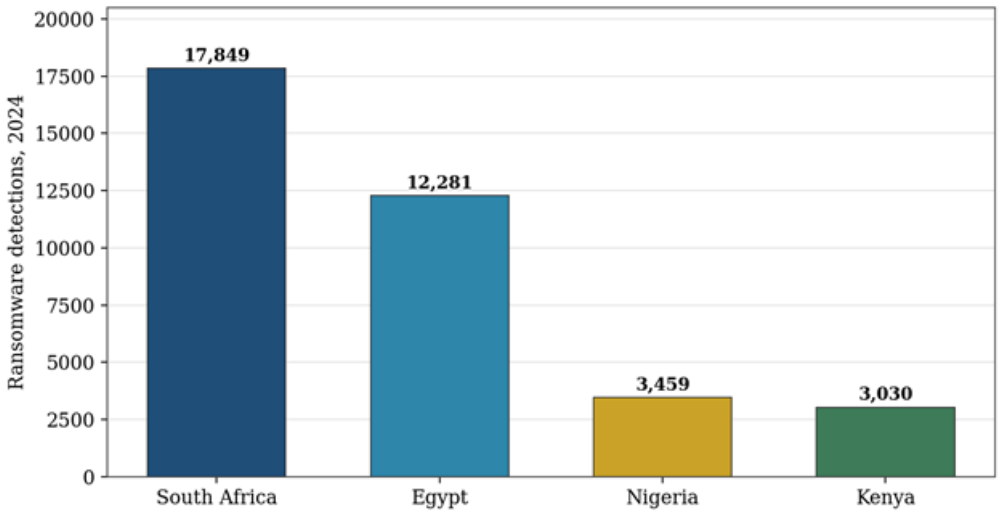


Figure 4.2.2. Ransomware detections in the most affected African countries, 2024

Source. Constructed based on Trend Micro data reported in INTERPOL (2025).

Artificial intelligence is a force multiplier on both sides of this contest. Offensively, generative models industrialize social engineering by producing fluent, localized phishing lures, synthetic identities, and voice-cloned business email compromise at negligible cost, and INTERPOL identifies AI-driven fraud as an emerging danger demanding urgent attention, with suspected scam notifications rising by as much as 3,000 percent in some countries within a single year (INTERPOL, 2025). Defensively, machine learning underpins anomaly detection, fraud scoring, and automated triage, capabilities that leading African financial institutions and telecommunications operators are beginning to deploy. Resilience is also demonstrably improved through cooperation. Operations Serengeti and Red Card, coordinated by INTERPOL and AFRIPOL across African jurisdictions, resulted in more than 1,000 arrests and the dismantling of over 134,000 malicious infrastructures, disrupting networks linked to an estimated USD 193 million in losses and 35,000 victims worldwide (INTERPOL, 2025). The policy implication is that AI-accelerated threats cannot be met by nationally siloed responses, since the marginal value of shared threat intelligence and joint operations rises with the automation of attack.

4.3 Public-Sector AI Use: Case Studies and Their Implications

4.3.1 Welfare Targeting and Social Protection

Togo remains the clearest African case of AI-assisted poverty targeting under crisis conditions. The Novissi programme operated as a fully contactless emergency cash transfer system that reached over half a million beneficiaries within weeks despite the absence of any comprehensive social registry, and in its rural phase 154,238 recipients in the 100 poorest cantons were selected by machine learning models applied to high resolution satellite imagery and mobile phone metadata, reducing exclusion errors by 4 to 21 percent relative to the geographic alternatives then available (Aiken et al., 2022). The positive lesson is plain. Where administrative records are thin, AI lets governments act faster and at a greater scale than case-by-case verification allows. Novissi is nonetheless the strongest warning against equating technical performance with democratic inclusion, because people without phones, with unstable access, or with weak digital traces risk systematic exclusion, and those characteristics map directly onto the vulnerabilities social protection exists to reduce. Grievance mechanisms, offline registration pathways, and human review are therefore structural requirements rather than refinements (Aiken et al., 2022; UNDP, 2025).

Nigeria repeats the logic at scale. More than 100 million National Identity Numbers had been enrolled by 2024, yet before the pandemic, only about 1.6 percent of Nigerians lived in households covered by the National Social Safety Net Project, a gap that led researchers and the government to estimate poverty from satellite imagery using deep learning (World Bank, 2024; Yeh et al., 2020; Smythe & Blumenstock, 2022). AI can partially compensate for missing welfare data, but it can also normalise opaque eligibility unless rules for explanation, appeal, and correction are explicit. Kenya shows the more institutionalised pathway, since targeting rides on strong digital identity and mobile money rails that reduce duplication and leakage and make transfers auditable (World Bank, 2024). The general finding is that AI works best as a layer on top of functioning identity, payment, and records systems rather than as a standalone tool.

4.3.2 Service Delivery and Public Value

Rwanda demonstrates how the digital government creates a platform for AI-enabled public value. The Irembo platform has digitized more than 100 routine services, from birth registration to driving license applications, and the National AI Policy structures adoption around public sector use, data infrastructure, ethics, and skills (Republic of Rwanda, 2023). Democratic governance is not only about elections. It is also about whether citizens can obtain documents and complete administrative processes without delay, rent seeking, or geographic disadvantages. Rapid modernization nonetheless concentrates risk because centralized systems deepen dependence on small expert pools, external vendors, and closed infrastructures, raising the premium on procurement transparency, data governance rules, local language support, and independent oversight. Citizen-facing deployments reinforce the inclusion story. In Kenya, the PROMPTS maternal health platform had reached three million mothers by 2026, raised prenatal checkup attendance by 20 percent, doubled postpartum family planning uptake, and

helped ensure that 90 percent of high-risk cases received hospital care, while the World Food Programme tool MEza digitised records across more than 100 clinics in Kenya and the Republic of the Congo (Global Center on AI Governance, 2026). Both cases pair impact with responsible design, keeping humans in the loop, using open tools, and protecting privacy, which matters because public value depends on citizens trusting the process behind the outputs, not only the outputs themselves.

4.3.3 Accountability, Integrity, and Public Oversight

South Africa offers the broadest experimentation within the state, with a recent inventory identifying 23 distinct AI applications in active use across the public sector, spanning chatbots, fraud analytics, biometric security, and conservation (Global Center on AI Governance, 2026). Well-governed, such systems reduce waste and strengthen administrative integrity. Poorly governed, they enable opaque decision-making and the creep of surveillance. South Africa also supplies a sharp cautionary tale about governance discipline itself. In April 2026, the government withdrew its gazette draft National AI Policy after journalists established that at least six of its 67 academic citations were fabricated and apparently AI-generated, and the drafting process was restarted under strengthened independent review (Reuters, 2026). The lesson is not that AI policy should halt but that human oversight, documentation quality, and public scrutiny are non-negotiable, even in relatively capable states. Accountability also extends beyond the state. The Uwazi platform developed by HURIDOCS uses machine learning to tag, categorize, and extract metadata from large human rights evidence sets while retaining manual review and an error feedback loop, an instructive example of AI widening accountability rather than centralizing power (Global Center on AI Governance, 2026).

4.3.4 Comparative Findings and Policy Implications

The cases yield a clear conclusion, summarized in Table 4.3.4. AI strengthens democratic governance when it is tied to inclusive infrastructure, lawful data sharing, human review, low-cost channels for appeal, and credible cybersecurity, as in Kenya's payment and health architectures, Rwanda's service platform, and the rights-oriented design of Uwazi. AI weakens democratic governance when inputs are unequally distributed, eligibility is opaque, cyber defenses lag behind digital expansion, or governments fail to meet basic evidentiary standards, as Togo's exclusion risks, Nigeria's threat exposure, and South Africa's policy withdrawal each demonstrate in different ways.

Table 4.34. Comparative synthesis of the case study evidence

Case	Democratic contribution	Principal governance risk
Togo (Novissi)	Rapid, scalable crisis relief without a social registry	Exclusion of the digitally invisible, opaque eligibility
Nigeria (NIN, satellite targeting)	Identity scale, data gaps partially bridged by AI	Normalized opacity, high cyberattack exposure
Kenya (PROMPTS, payment rails)	Auditable transfers, measurable health inclusion gains	Dependence on platform integrity and data protection

Rwanda (Irembo, AI Policy)	Broad service digitization, structured AI adoption	Concentration on expertise, vendor, and oversight risk
South Africa (public sector AI, policy withdrawal)	Wide State experimentation, fraud analytics	Documentation failures, surveillance creep
Civil society (Uwazi)	Scaled human rights documentation with human review	Sustainability and donor dependence

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Two policy implications emerge. First, the most successful African AI initiatives are rooted in institutional aspects rather than just technology. Their success relies on identity systems, payment infrastructure, clinic operations, fraud prevention, and redress mechanisms, areas where investment should be prioritized. Second, the governance gap continues to be significant and is more political than technical. While most African states now have data protection laws, only 16 out of 55 have ratified the Malabo Convention. As a result, legal coverage is expanding more quickly than trust and interoperability are being harmonized. (Chatham House, 2025). On a continent where support for democracy stays robust but faces challenges, bridging the gap with enforceable oversight, regional cooperation, and inclusive strategies will decide if AI becomes a means for democratic renewal or subtly sustains exclusion.

5. Conclusion and Policy Recommendations

The global ascendancy and integration of artificial intelligence (AI) have become undeniable; yet, for Africa, the developmental trajectory remains complex and non-deterministic, and cannot be classified as either utopian or dystopian. The regional digital ecosystem is currently defined by profound inequities, where underdeveloped infrastructure and institutional vulnerabilities contribute to significant digital isolation (Diagana and Wadagni, 2025; Diallo et al. 2025). As Mithi (2024) notes, modernizing this landscape is no longer a discretionary policy choice but a foundational imperative for participating in the global technological shift. Paradoxically, while the public and social services sectors exhibit emerging AI integration, the vast majority of the African workforce, predominantly situated in agriculture, trade, and commercial services, remains largely insulated from these advancements. The core operational tasks within these dominant industries rely heavily on physical dexterity, non-routine manual execution, and intense emotional intelligence, placing them outside the immediate functional interface of current AI systems (Gmyrek et al. 2025). Consequently, while the contemporary economy is anchored in vocational labour, achieving sustainable future growth necessitates a structural transformation that pairs the upgrading of medium-skill vocational profiles with the cultivation of high-innovation economic frameworks capable of absorbing specialized talent.

Within the informal economy, AI initiatives are increasingly targeted toward enhancing food security and augmenting agricultural productivity to improve rural livelihoods (GPAI, 2025). However, this integration presents a dual-edged reality while offering transformative benefits, it simultaneously threatens to displace workers across traditional roles. A critical concern emerges regarding labour mobility, as individuals displaced from the primary or informal sectors due to skill deficits may find the high-exposure requirements of the public and social services sectors, which currently employ approximately 11 percent of the workforce

insurmountable. In the service-oriented formal sectors, the intensity of AI exposure suggests that without coordinated reskilling and upskilling programmes, many professionals face measurable displacement risks. This compounded risk is further exacerbated by the potential for technological reforms in the informal sector to deepen existing unemployment challenges (Giwa & Ngepah, 2024). Ultimately, AI's impact on employment is inevitable, but will be shaped by the delicate balance between task substitution and complementarity and the proactive organisational and policy choices. While specialized digital skills are essential for maintaining productivity, the interests of most workers remain outside the current policy, and the government has not demonstrated capacity to address the problem. Within the sphere of public service, AI-driven applications are catalyzing advancements in administrative productivity, transparency, and data-informed policy design throughout Africa, though not without some socio-economic disparities that may compromise the integrity of democratic systems.

In summary, the substantial evolutionary capacity inherent in AI remains a developmental priority that must not be eclipsed by anxieties surrounding digital colonialism, algorithmic partiality, labor market disruption, AI-facilitated misinformation, cybercrime, intrusive surveillance, or the erosion of linguistic plurality and indigenous cultural systems through the imposition of external normative frameworks (Sule, 2026). The concerns regarding bias, privacy, inclusivity, and human oversight could hinder equitable service delivery and prevent safeguards for citizens' rights. Governments should evaluate AI adoption through multiple lenses, including efficiency and democratic governance, to ensure that the potential risks and harms of AI do not outweigh the benefits. The establishment of comprehensive and responsible regulatory frameworks that reflect the regional specificities of the continent is a foundational imperative. Such policies must integrate indigenous knowledge systems and traditional moral values to foster communal stability, equity, and collective prosperity across Africa. This necessitates the development of indigenous-centered AI frameworks that are inherently culturally sensitive and inclusive. Furthermore, Africa must address the problem of insufficient infrastructure which is limiting access to consistent internet and digital devices, tools needed to utilize AI in the work places, and restricting opportunities to acquire new skills, trapping informal actors in cycles of low-value entrepreneurial activities with higher risk of job displacement. Priority should be given to the development of digital infrastructure and digital skills. African governments must deliberately focus on protecting employees whose work autonomy and jobs are affected by these technologies. The successful integration of these technologies requires robust institutional governance, strategic capacity building, and multi-level stakeholder cooperation to ensure that AI adoption catalyzes sustainable and transformative socio-economic development.

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