



Making AI Work for All:

Policy Pathways for Gender-Inclusive AI Innovation in Africa

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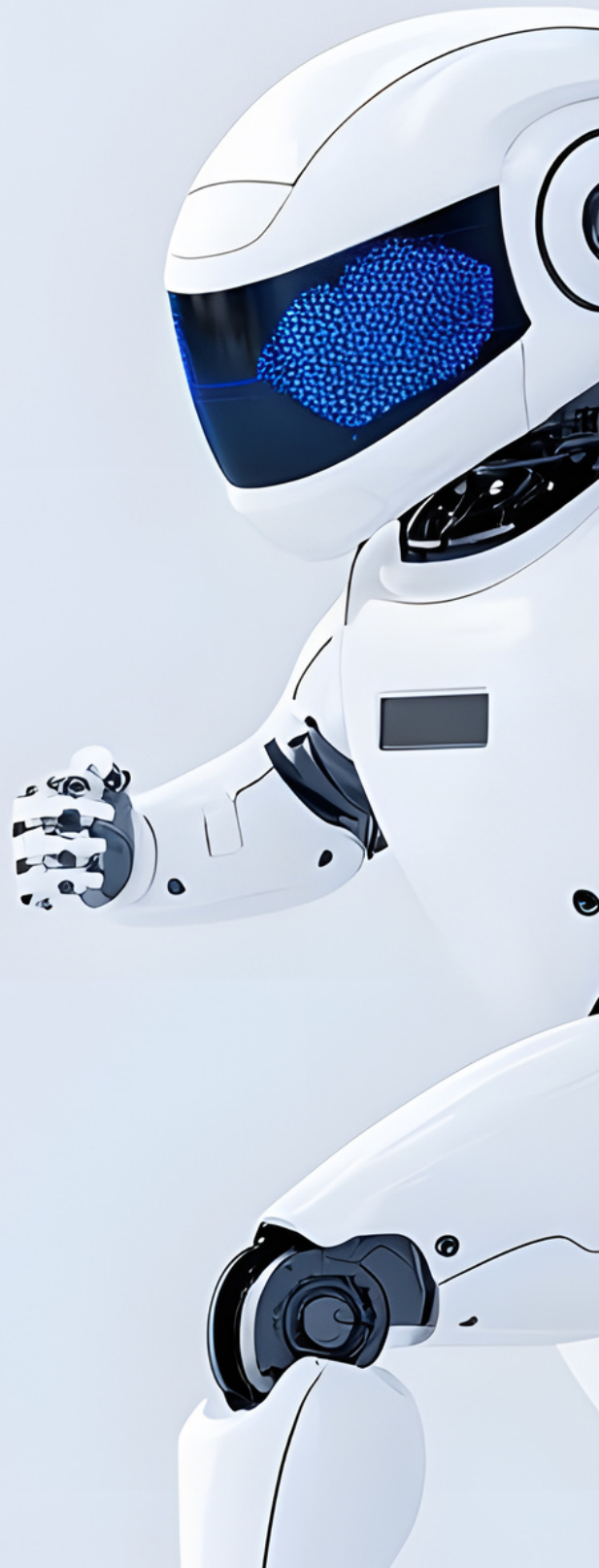
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Executive Summary

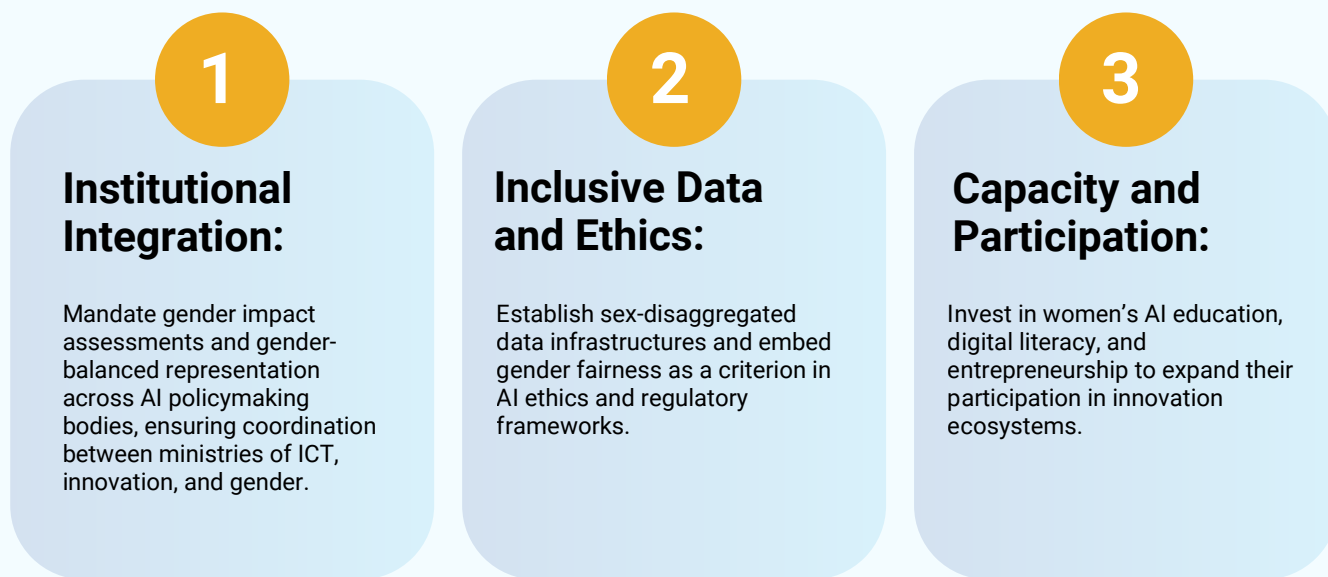
Artificial Intelligence (AI) is reshaping Africa's economies and societies, driving innovation across sectors from finance and health to governance and education. However, this policy paper exposes the systematic exclusion of women from the foundations of Africa's digital future. Without urgent reform, AI risks deepening rather than dismantling structural inequalities, creating an algorithmic patriarchy that undermines the continent's digital transformation goals.

Our comparative analysis of national AI strategies in Egypt, Kenya, Nigeria, Rwanda, and South Africa, alongside regional initiatives such as the African Union's AI Strategy, finds that gender remains largely invisible in AI governance. Ethics frameworks rarely address bias, women are under-represented in decision-making spaces, and chronic data deficits obscure women's realities from algorithmic systems. As a result, policy rhetoric on "inclusion" often fails to translate into practice.

This lack of visibility is not only a social issue; it is also a risk to the economy. According to the African Development Bank (AfDB), closing the digital gender gap could add hundreds of billions to Africa's GDP. Inclusive AI systems enhance innovation, strengthen accountability, and ensure that technological progress benefits society as a whole.



To address these gaps, this paper introduces a Gender-Aware AI Governance Framework, outlining three core pathways for reform:



By adopting these measures, African governments can transform AI from a driver of digital exclusion into a catalyst for inclusive innovation and equitable growth. The future of AI in Africa will be defined not only by technological capability but also by whether it reflects and serves the full diversity of its people.

Research Context

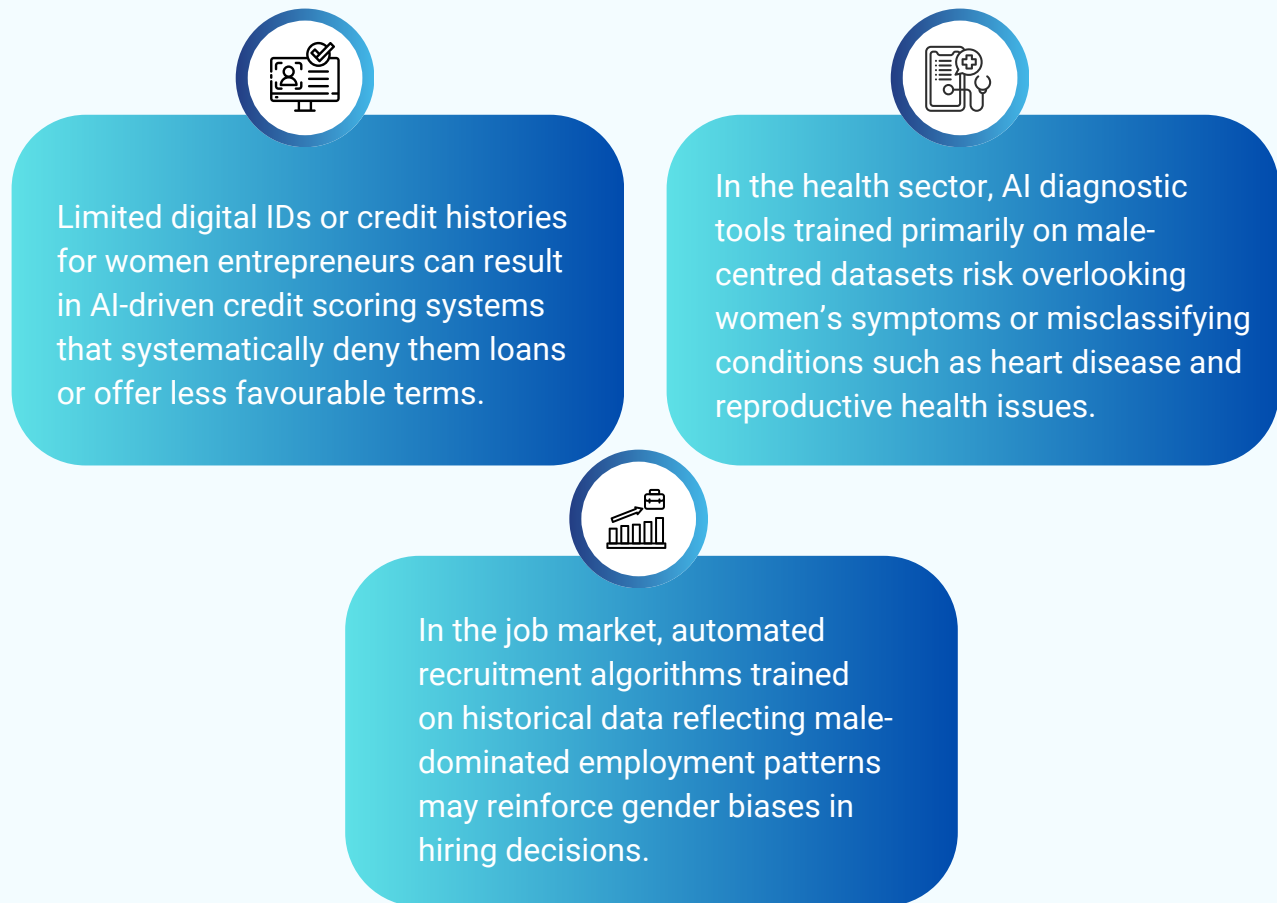
Africa's digital transformation is accelerating, reshaping how citizens learn, work, communicate, and access public services. AI applications are increasingly being deployed to address pressing development challenges, from predictive analytics in health and agriculture to automated financial services, digital identity systems, and smart education platforms. Initiatives such as the African Union's Digital Transformation Strategy (2020–2030), Agenda 2063, and the [Continental Artificial Intelligence Strategy](#) (2024–2034) underscore Africa's collective

commitment to harnessing emerging technologies for inclusive, sustainable, and sovereign digital growth. Together, these frameworks signal a regional shift toward coordinated AI governance but also expose a critical gap: the limited integration of gender perspectives within the continent's AI roadmap.

Nevertheless, this rapid adoption of AI also exposes deep structural inequalities that already shape women's participation in the digital economy.

These exclusions mean that women's experiences, needs, and data are often missing from the very systems used to train AI models.

This invisibility in data can cascade through the entire AI value chain, from data collection to algorithm design to outcomes. For instance:



These examples illustrate how data bias → algorithmic bias → social bias forms a reinforcing loop that amplifies women's pre-existing exclusions. Without gender-aware governance, Africa's AI transformation risks entrenching inequalities rather than dismantling them.

Currently, AI governance frameworks in many African countries prioritise data sovereignty, infrastructure, and investment but often overlook gender safeguards. Most national AI strategies do not require gender impact

assessments, mandate inclusive datasets, or ensure women's representation in AI decision-making bodies. This policy blind spot results in ethical intentions rarely being translated into gender-responsive implementation.

However, there are encouraging models. For example, Rwanda's gender mainstreaming policy in ICT has supported greater female participation in digital entrepreneurship programmes, while Kenya's Ajira Digital Program incorporates gender-sensitive training for young women entering online work. .



These cases show that inclusive innovation is achievable when gender is built into policy design from the outset.

In this situation, a gender-aware AI policy framework is necessary and not only to avert algorithmic harms but also to unlock women's potential as innovators, entrepreneurs, and decision-makers in Africa's AI revolution. Embedding gender equity in AI governance is therefore not a social add-on. It is a strategic investment in the continent's sustainable and inclusive digital future.

Problem Statement

Despite growing attention to AI ethics and governance across Africa, most emerging policy frameworks remain gender-neutral in language but gender-blind in practice. As countries such as Egypt, Kenya, Ghana, Nigeria, Rwanda, and South Africa race to draft or finalise national AI strategies, gender considerations are rarely embedded in design or implementation. The current wave of AI strategy development across the continent, including the African Union's Continental AI Strategy (2024–2034), represents both a historic opportunity and a critical risk: unless gender is systematically integrated now, Africa's digital transformation could reinforce rather than reduce structural inequality.

While discussions across ministries emphasise infrastructure, innovation, and data sovereignty, the social dimensions of AI, particularly gender equity and inclusion, are often treated as peripheral concerns rather than integral governance priorities. Nevertheless, gender inclusion is not only a question of fairness; it is an economic and innovation imperative. [Studies](#) by the AfDB show that closing Africa's digital gender gap could add up to US\$316 billion to the continent's GDP by 2030. Gender-responsive AI governance would thus expand markets, diversify talent pipelines, and strengthen Africa's competitiveness in the global digital economy.



Intersecting Challenges

1. Algorithmic Bias and Skewed Outcomes:

AI systems mirror the biases embedded in their training data. In many African countries, women's limited visibility in formal employment, finance, and digital platforms leads to incomplete or unrepresentative datasets. When these gaps feed into algorithmic models, whether in credit scoring, health diagnostics, or digital identity verification, the result is unequal outcomes.

For instance, a 2023 [report](#) from the Central Bank of Egypt noted that only 27% of women have formal financial accounts. Many digital credit systems rely on transaction histories or digital IDs that under-represent women's informal economic activity. As Egypt develops its National AI Strategy, gender-blind data practices could thus perpetuate exclusion in emerging digital financial ecosystems. Similarly, digital lending apps operating in East and West Africa often rely on alternative data such as phone usage or online transactions. Since women are less likely to use smartphones for financial transactions, credit-scoring algorithms tend to classify them as "high-risk" borrowers, restricting access to credit or imposing higher interest rates.

In addition, AI-assisted health tools trained primarily on male biomedical data risk misdiagnosing women, especially in reproductive or cardiovascular health.

2. Under-representation in AI Decision-Making:

Across Africa, women remain under-represented in AI policy, innovation, and regulatory spaces. For instance, a 2023 [UNESCO report](#) found that women account for less than 20% of members in national AI task forces and less than 25% of AI researchers on the continent.

In North Africa, women comprise only 17% of Egypt's AI and data science workforce (Egypt's Ministry of Communications and Information Technology, 2023). This under-representation means that women's perspectives are largely absent from policy processes that define ethical principles, data priorities, and funding mechanisms. Without inclusive participation, AI governance risks perpetuating a cycle of exclusion where decisions fail to reflect women's lived experiences or address gendered biases in technology systems.

3. Unequal Access to Digital and Educational Resources:

Ongoing gender gaps in digital literacy, STEM education, and connectivity continue to limit women's participation in Africa's AI-driven economy. According to the International Telecommunication Union (2023), African women are 35% less likely than men to have internet access. In Egypt, [the National Council for Women and MCIT](#) report that women represent only 28% of graduates in ICT-related disciplines, and fewer than one in five AI specialists are female. This lack of access and representation reduces women's economic opportunities and deprives AI systems of gender-diverse data, reinforcing structural bias and limiting the innovation potential of the continent's AI ecosystem.

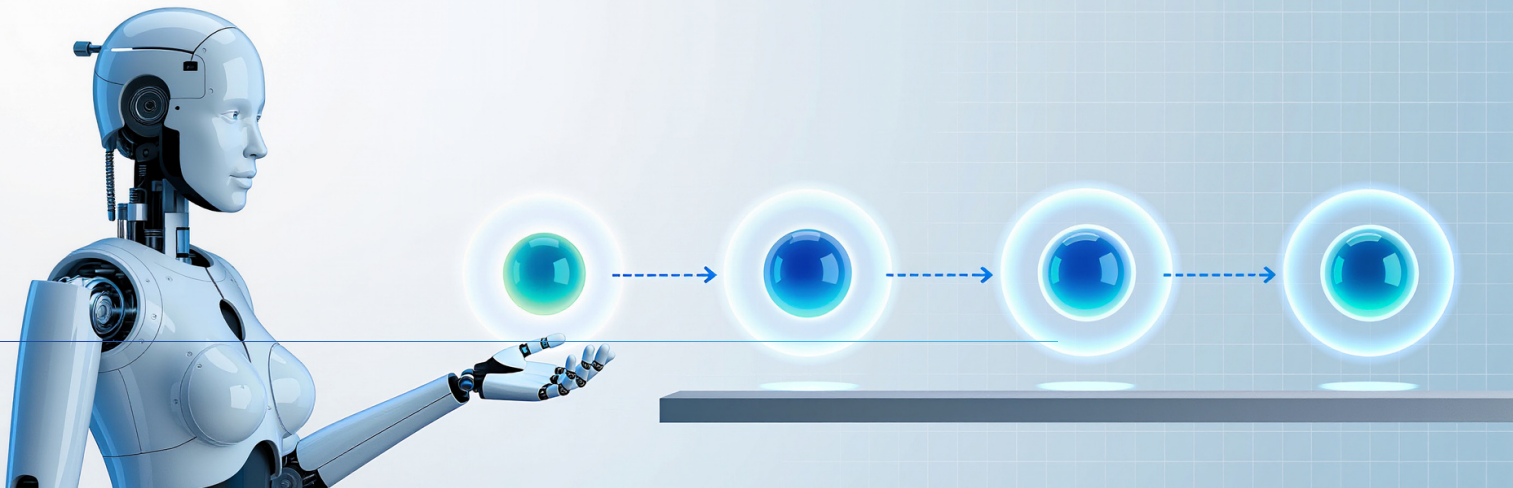
4. Institutional Fragmentation and Weak Governance Coordination:

In many contexts, AI governance responsibilities are distributed across multiple ministries, such as ICT, higher education, innovation, and gender, with limited coordination or shared accountability. For example, in Egypt, the Ministry of Communications and Information Technology leads AI strategy development, while gender inclusion initiatives fall under the National Council for Women, with minimal policy alignment between the two. Similarly, ICT ministries in Kenya and Nigeria lead digital innovation policies with minimal integration of gender agencies in AI governance. This fragmented governance model establishes policy silos, treating technology and gender as distinct domains. As a result, ethical commitments often lack gender-sensitive implementation mechanisms or clear institutional accountability.

The Policy Gap

The absence of a coherent gender dimension in AI strategies risks excluding half of Africa's population from the benefits of digital transformation and from shaping the technologies that increasingly influence social and economic life. Unless governments establish gender-aware governance levers such as gender impact assessments, inclusive data governance standards, and equitable participation mechanisms, AI may deepen existing inequalities in access to finance, healthcare, education, and employment.

What is at stake is not only women's digital inclusion but also the credibility and fairness of Africa's broader AI transformation. A governance model that overlooks gender risks building an innovation ecosystem that is technologically advanced yet socially exclusionary.



Research Methodology

This policy paper draws on a comparative qualitative content analysis of AI-related policy documents, strategies, and frameworks from selected African countries and regional institutions. The goal was to assess the extent to which gender inclusion, ethical considerations, and governance mechanisms are integrated into the national and regional AI agendas.

Scope and Sample: The study examined official documents and strategies from:

Five countries:



Egypt, Kenya, Nigeria, Rwanda, and South Africa, chosen for their diverse AI maturity levels, linguistic regions, and institutional capacities.

Regional initiatives:



The African Union's AI Strategy, Smart Africa Digital Academy, and UNESCO's AI capacity-building programmes are relevant to Africa's digital transformation.

Analytical Framework: Each policy document was systematically coded for references to:



Inclusion and diversity (mentioning women, youth, marginalized groups)



Ethical AI principles: (bias, fairness, transparency, privacy)



Representation and gender equality in governance or implementation mechanisms



Accountability and institutional coordination structures

This coding followed a thematic qualitative analysis approach, identifying both discursive patterns (how gender and inclusion are framed rhetorically) and structural gaps (what institutional mechanisms are absent).

Key Informant Interviews: To complement the document analysis, semi-structured interviews were conducted with:



Policymakers and members of national AI task forces



Representatives from women-in-tech and digital inclusion organizations



Academic researchers working on AI ethics and governance

These conversations helped contextualise findings, revealing how policy intentions translate (or fail to translate) into practice. Interviewees provided insight into institutional barriers, political priorities, and the sociocultural norms shaping AI policymaking in different contexts.

Ethical and Analytical Considerations: All interviewees participated voluntarily, with informed consent, and confidentiality was ensured. Data were analysed inductively, allowing emergent themes to shape the analytical categories. While the study provides a comparative overview, it does not claim exhaustive coverage of all national policies, focusing instead on trends and governance lessons relevant across the continent.

Contribution of Methodology: By combining document analysis with stakeholder insights, this approach captures both the formal architecture of AI governance and the informal practices and perceptions that shape gender inclusion on the ground. This mixed qualitative design strengthens the policy paper's analytical depth and its practical relevance for African decision-makers.

Key Findings

This study reveals that while African countries have made notable progress in developing national strategies for AI and digital transformation, gender remains largely invisible in these emerging governance systems. The analysis highlights a persistent pattern: gender is often referenced symbolically but rarely operationalised. The following findings expose the structural and conceptual blind spots that perpetuate exclusion and identify entry points for building gender-aware AI governance.

Table 1.1 Comparative Table: Gender Inclusion in National AI Strategies (Egypt, Kenya, Nigeria, Rwanda, South Africa)

Country	AI Strategy/ Policy	Gender Inclusion in Policy Design	Gender Representation in AI Governance	Gender Data / Bias Mitigation Measures	Key Observation
Egypt	National AI Strategy (forthcoming) ; Digital Egypt Strategy (2022)	The article highlights the involvement of women in digital literacy initiatives such as the Digital Egypt Builders Initiative, yet it does not provide any gender impact assessments.	Women represent ~17% of the AI and data science workforce; there is limited participation in AI task forces.	No mandatory gender-disaggregated data collection; algorithmic bias not explicitly addressed.	AI strategy framed as economic, not social; gender mainstreaming still peripheral.
Kenya	Draft National AI Strategy (2023)	References “inclusive innovation” but lacks specific gender targets or funding mechanisms.	Women are under-represented in AI research and policy councils.	No national dataset standards for bias mitigation.	Inclusion framed rhetorically; limited operationalisation.
Nigeria	National AI Policy Framework (2022)	Recognises diversity but does not define actionable gender goals.	Few women in national AI advisory boards; female participation in STEM is less than 25%.	No public gender-disaggregated AI indicators.	Institutional fragmentation limits coordination between ICT and gender ministries.

Country	AI Strategy/ Policy	Gender Inclusion in Policy Design	Gender Representation in AI Governance	Gender Data / Bias Mitigation Measures	Key Observation
Rwanda	National AI Policy (2023)	The policy explicitly promotes women's digital skills and participation in AI training.	Compared to regional peers, there is a higher representation of women in ICT compared.	The framework lacks both gender monitoring indicators and enforcement mechanisms.	Strong political will, but weak institutional follow-through.
South Africa	National AI Plan (2022); ICT Gender Mainstreaming Committee (2021)	Integrates gender equity into policy objectives; mandates gender-sensitive monitoring indicators.	Relatively balanced representation on intergovernmental ICT committees.	Gender-disaggregated reporting is required for digital skills programmes.	Represents the most advanced model for gender-responsive AI governance in Africa.

Source: Author's construction

Gender gaps in AI Strategies: Across ten national and regional AI or digital transformation strategies reviewed, only three explicitly reference women or gender inclusion. In most cases, AI strategies frame inclusion broadly using terms such as *"inclusive innovation"*, *"citizen participation"*, or *"digital equality"*, without translating these commitments into measurable actions or financial support.

For example: By comparison, Rwanda's National AI Policy (2023) explicitly identifies gender inclusion in digital skills development but lacks monitoring mechanisms or institutional accountability. South Africa's National AI Plan (2022), on the other hand, includes measurable gender indicators under the Department of Communications and Digital Technologies. In contrast, Kenya and Nigeria's draft AI strategies (2023) reference *"inclusive innovation"* without defining how inclusion will be implemented or funded. This pattern shows that across the continent, gender inclusion remains peripheral, treated as an ethical aspiration rather than a governance requirement.

Ethics Without Gender: *"Ethical AI"* features prominently in African AI and digital policies, but the definition of ethics is often narrow, limited to privacy protection, data security, and transparency. Gendered dimensions of fairness, accountability, and representation are largely absent.

In Egypt, emerging applications of AI in the financial and employment sectors reveal similar gendered risks. For instance, AI-driven credit assessment models used in pilot fintech programmes often rely on transaction histories or digital identities that under-represent women's informal economic activities. This results in skewed credit scoring and limited access to financial services for women entrepreneurs. Likewise, recruitment algorithms tested in large Egyptian corporations have shown tendencies to replicate historical hiring patterns that favour men in technical and managerial roles, due to biased training datasets.

Interviews with AI task force members and policymakers in Kenya, Nigeria, and Egypt revealed a widespread lack of technical understanding of algorithmic bias, including how biased data inputs and model training can lead to discriminatory outcomes. In Kenya, financial technology (FinTech) applications that use alternative credit scoring models (based on phone usage or social media data) often disadvantage women due to lower smartphone access and limited digital footprints, reinforcing financial exclusion. In Nigeria, an AI-based recruitment tool piloted by a private-sector firm inadvertently filtered out female candidates because its model was trained on historical hiring data dominated by men in technical roles.

These examples illustrate how biases embedded in data and design decisions can entrench social inequalities when not examined through a gender lens. Ethical AI frameworks that fail to recognise these gendered dynamics risk legitimising discrimination under the guise of neutrality.

Representation and Governance Gaps: Women remain significantly under-represented in AI governance and policy design across Africa, with Egypt reflecting many of the same structural challenges seen across the continent. Within Egypt's emerging AI ecosystem, women occupy only a small fraction of leadership and decision-making roles. According to [data](#) from the Ministry of Communications and Information Technology (2023), women represent roughly 17% of the AI and data science workforce, and their participation in formal AI policy committees remains limited. The National AI Council, which advises on the country's forthcoming AI strategy, includes only one female representative among more than a dozen members. As one Egyptian AI researcher interviewed for this study explained.

"AI discussions in Egypt are dominated by technical and economic priorities; gender is treated as a social issue, not a governance one."

Similar patterns are evident across other African contexts. In Kenya and Nigeria, for instance, women's representation in national AI task forces and innovation boards remains below 20%, while gender ministries are seldom invited to participate in AI policy formulation. Institutional fragmentation further exacerbates this imbalance: responsibilities for AI governance are often distributed across ministries of ICT, innovation, education, and gender, with limited coordination or shared accountability. As one Kenyan policymaker noted, "Everyone agrees gender inclusion matters, but no one knows whose job it is." This siloed approach undermines cross-sectoral gender mainstreaming and weakens the capacity to embed gender perspectives throughout the AI lifecycle, from policy design to implementation and evaluation.

By contrast, South Africa offers a more coordinated model through its Intergovernmental Committee on ICT Gender Mainstreaming, which brings together ministries, regulatory agencies, and civil society organisations to align gender-sensitive approaches across digital and AI policies. While still evolving, this mechanism demonstrates how institutional coordination can make gender inclusion a structural component of AI governance rather than an afterthought. For Egypt and other countries in the region, adopting similar inter-ministerial coordination frameworks could ensure that gender equity becomes a measurable and enforceable element of AI policymaking rather than a symbolic reference in strategy documents.

Data Deficit and Contextual Disconnect: A critical barrier to gender-responsive AI governance in Africa is the absence of sex-disaggregated and intersectional data, a challenge that is visible in the Egyptian context. Despite Egypt's rapid digital transformation, most national datasets related to AI development, digital literacy, or STEM participation are not gender-disaggregated. For example, while the Ministry of Communications and Information Technology collects data on participants in AI and data science training programmes, it does not consistently record participants' gender or track post-training employment outcomes. As a result, women's contributions to Egypt's growing AI sector remain under-documented and undervalued. An interviewee from a Cairo-based digital policy think tank observed, "We have numbers on how many people are trained, but not how many women advance into AI jobs or leadership roles; the data gap itself is a barrier to inclusion." This lack of visibility makes it difficult for policymakers to assess how AI systems affect women or to design interventions that correct structural imbalances.

This data deficit is not unique to Egypt; it reflects a broader continental trend. Across much of Africa, national AI strategies rarely include provisions for sex-disaggregated or intersectional data collection. Countries such as Kenya, Nigeria, and Rwanda lack comprehensive statistics on women's digital access, STEM participation, or employment in AI-related sectors, making it nearly impossible to measure the gendered impacts of algorithmic systems or evaluate policy effectiveness.

A deeper contextual disconnect between global AI ethics models and African realities exacerbates the problem. Frameworks imported from Western contexts often prioritise individual privacy, competition, and market efficiency, overlooking the collective, community-based data practices and informal economies that define much of African society. In Egypt, for instance, thousands of women operate small online businesses through social media platforms such as Facebook Marketplace and Instagram, generating valuable consumer and behavioural data that remain unaccounted for in formal AI or digital economy analyses. Similar gaps exist in East Africa, where women in rural agricultural cooperatives contribute substantial data through informal digital platforms without formal recognition in national AI datasets.

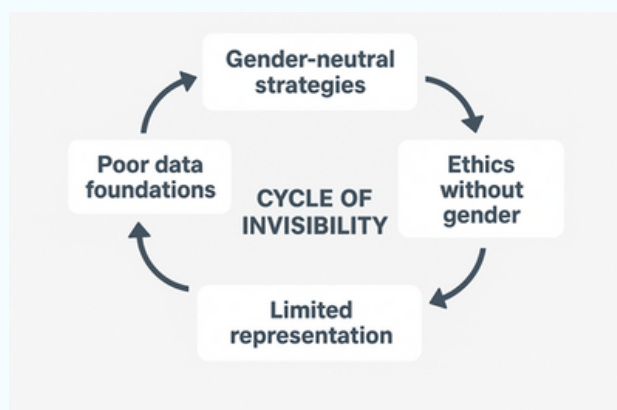
Local initiatives have begun to address this gap. [Egypt's Women in Data Science \(WiDS\)](#) Network, hosted in collaboration with universities and private-sector partners, has created small but impactful spaces for training and data-sharing among women professionals. Rwanda's Smart Africa Digital Academy likewise integrates gender considerations in its digital capacity-building programmes. However, these efforts remain fragmented, underfunded, and insufficiently integrated into national AI policy frameworks.

Ultimately, the absence of reliable, gender-disaggregated data and the mismatch between imported AI ethics frameworks and African socio-economic realities result in governance structures that fail to represent the continent's lived experiences, particularly those of women whose contributions to innovation are informal, communal, and often invisible within formal systems.

Synthesis

Taken together, these findings reveal a cycle of invisibility.

Figure 1.1 Cycle of Invisibility





Implications of Findings

Economic Costs and Opportunities: When gender is overlooked in AI governance, the result is not only exclusion but also inefficiency. AI systems built on biased datasets risk reproducing existing economic hierarchies, effectively encoding discrimination into digital infrastructures. In Egypt and other African countries, algorithms used in financial and recruitment systems have already shown patterns of bias that undervalue women's creditworthiness and restrict their employment opportunities in high-value sectors. Such bias creates what scholars term an "algorithmic patriarchy", where the apparent neutrality of technology conceals gendered power structures.

The cost of inaction is significant. The AfDB estimates that closing the gender gap in digital participation could add hundreds of billions of dollars to Africa's GDP by 2030. Gender-aware AI governance is thus not merely a fairness agenda; it is a strategic economic imperative. Women's active participation in AI as data scientists, entrepreneurs, and innovators expands the talent pool, diversifies innovation outcomes, and ensures that AI solutions reflect a broader range of social needs. Failing to act risks producing a two-tiered digital economy, where men dominate advanced AI fields while women remain confined to low-skill digital work, weakening Africa's competitiveness in the global innovation landscape.

Governance Gaps and Institutional Fragmentation: The findings reveal that fragmented governance structures across African states deepen these risks. In Egypt, Kenya, and Nigeria, responsibilities for AI development are dispersed across ministries of ICT, education, innovation, and gender, with minimal coordination or shared accountability. This institutional fragmentation turns gender inclusion into a rhetorical aspiration rather than a policy mandate. As one Egyptian policy expert explained.

“Gender is always on the agenda, but never in the budget.”

Without an integrated approach, ministries tasked with gender equality remain sidelined from technical decision-making in AI policy. South Africa’s Intergovernmental Committee on ICT Gender Mainstreaming provides a promising model, showing how inter-ministerial coordination can make inclusion structural rather than symbolic. Replicating such frameworks across the continent could enhance accountability, reduce duplication, and strengthen institutional capacity to embed gender perspectives throughout the AI lifecycle, from strategy development to implementation and evaluation.

Ethical and Contextual Relevance: Relying on imported AI ethics frameworks that prioritise individual privacy and market efficiency risks creating policies detached from African realities. Many African women operate in informal economies or community-based digital networks that remain invisible in global ethical standards. Developing indigenous, gender-aware ethical frameworks grounded in African values such as *Ubuntu* which emphasises collective responsibility and social justice, would enhance both legitimacy and contextual fairness.

The persistent data deficit compounds these ethical challenges. Without sex-disaggregated and intersectional data, policymakers cannot assess whether AI systems are fair, inclusive, or effective. In Egypt and across the continent, investing in robust gender-disaggregated data infrastructures would improve the accuracy of AI models and provide an empirical foundation for inclusive policymaking. Data visibility is the first step toward equitable digital governance.

Social and Civic Implications: Beyond economics and governance, the implications are social and generational. Gender-aware AI governance can transform women from passive users of technology into active producers of digital knowledge and policy innovation. Training women in AI, data literacy, and digital entrepreneurship can catalyse long-term social transformation, expanding women's civic participation, leadership, and agency. Conversely, continued exclusion will embed historical hierarchies into the very technologies that shape the next generation, perpetuating inequality under the guise of progress.

AI as Economic Strategy and Digital Sovereignty

The evidence is clear: gender-aware AI governance is not only a moral or developmental concern; it is an economic strategy and a sovereignty issue. By embedding gender considerations into AI policy, Africa can ensure that its digital transformation enhances equity, innovation, and autonomy rather than reproducing dependency and exclusion.

Africa's AI revolution will define its economic and political future. Integrating gender at the heart of this transformation offers a historic opportunity to build inclusive, self-determined, and globally competitive AI ecosystems. The cost of inaction is measurable; the opportunity for inclusive innovation is immeasurable.

Policy Recommendations

The findings of this study make clear that gender invisibility within African AI strategies is not a technical omission but a structural governance gap that demands urgent policy correction. To ensure that the continent's digital transformation is both innovative and inclusive, gender considerations must be systematically embedded across all stages of AI governance, from policy formulation to project implementation. This requires coordinated, time-bound action by national governments, regional institutions, academia, civil society, and the private sector.

National governments must mandate the integration of gender inclusion into AI strategies and governance structures. Ministries of ICT, innovation, finance, and gender affairs should work together to ensure gender objectives are explicitly defined, measured, and financed within AI policies. Governments should require gender impact assessments (GIA) for all publicly funded AI projects and establish accountability mechanisms to track progress. Over the short term (1–2 years), gender indicators should be added to existing AI and digital transformation strategies.

By the medium term (3–5 years), inter-ministerial coordination units dedicated to Gender and AI should be established to align policy implementation. In the long term (beyond 5 years), mandatory gender audits should become standard for all national AI initiatives. Success would be evident when at least 40% of AI council members are women, 50% of government AI projects undergo GIA reviews, and annual budgets include a ring-fenced allocation for women-focused AI programmes.

At the regional level, the African Union (AU), AUDA-NEPAD, and Smart Africa should establish formal mechanisms for continental coordination on gender and AI. The AU should create a Gender and AI Working Group under its Continental AI Strategy to monitor progress and promote peer learning among member states. Smart Africa should integrate gender-responsive governance modules into its Digital Academy, while AUDA-NEPAD can develop a Gender and AI Index to benchmark member states' performance. These actions could begin within two years, with standardised regional frameworks adopted by 2030. Progress can be measured through the number of countries reporting annually on gender inclusion in AI policies and through the institutionalisation of regional monitoring indicators.

Academic institutions and civil society organisations must develop interdisciplinary research and advocacy networks that connect AI ethics, governance, and gender. Universities across Egypt, Kenya, and South Africa

should collaborate to produce localised evidence and training materials on gender-aware AI ethics. Over the short term, they can establish Gender and Responsible AI hubs to study bias in algorithms and digital labour. Within five years, gender-focused AI ethics modules should become standard in graduate programmes, ensuring a new generation of policymakers and engineers equipped to detect and mitigate bias. Civil society and women's organisations, meanwhile, should lead awareness campaigns on algorithmic discrimination and digital rights, ensuring that public pressure reinforces institutional accountability. The success of these efforts would be visible through measurable increases in women's participation in AI-related education and research and in the policy uptake of evidence-based gender frameworks.

The private sector must invest in gender-sensitive innovation practices and adopt mandatory gender audits for datasets, algorithms, and hiring processes. Technology firms should diversify their teams to ensure at least 35% women's representation across technical and leadership roles, while venture capital funds should develop "Women in AI Innovation Funds" to provide financing and mentorship to women-led startups. These initiatives would not only expand the innovation pipeline but also improve the contextual relevance of AI tools serving African markets. Tangible outcomes should include annual gender audit reports published by major AI firms and measurable growth in the number of women-led AI ventures supported through public–private partnerships.

Gender-aware AI governance is not simply a question of fairness; it is a matter of economic strategy, digital sovereignty, and innovation resilience. If implemented with urgency, these actions can unlock Africa's full digital potential, prevent algorithmic discrimination, and position the continent as a global model for equitable, human-centred technological governance. The time to act is now, before bias becomes the architecture of Africa's digital future.

Implementation Considerations



Turning gender-aware AI governance from principle to practice requires more than good intentions; it demands political commitment, institutional coordination, and resource investment across multiple layers of governance. While the proposed recommendations are feasible, their success depends on aligning national capacities, stakeholder incentives, and regional cooperation around a shared vision of inclusive digital transformation.

To begin, governments must establish cross-sectoral coordination mechanisms that bring together ministries of ICT, innovation, education, finance, and gender. These ministries should jointly oversee the integration of gender objectives into AI strategies through inter-ministerial task forces on Gender and AI, with clear reporting lines and performance benchmarks. The African Union and Smart Africa can reinforce this at the regional level by developing a continental coordination framework that standardises policy reporting, enables knowledge exchange, and prevents fragmented national efforts.

Who: Ministries of ICT, Gender, Education, Innovation, AU, and Smart Africa.

What: Create task forces, align policy frameworks, and coordinate progress reporting.

When: Short term (2025–2027).

Indicators: Gender & AI task forces established in at least 15 member states; annual AU progress reports published.

However, successful implementation requires overcoming capacity-related and structural barriers. Many African countries lack the technical expertise to detect algorithmic bias, collect gender-disaggregated data, or design inclusive AI systems. To close this gap, governments should partner with universities, international organisations, and technology firms to develop training modules and toolkits on gender-aware AI governance. Initiatives like the Smart Africa Digital Academy and UNESCO’s AI capacity-building programmes can provide scalable platforms for technical and ethical training.

Who: Governments, universities, international agencies, and private tech firms.

What: Develop and deliver national training programmes on gender-aware AI design and data ethics.

When: Medium term (2027–2030).

Indicators: At least 1,000 policymakers and practitioners trained; ≥50% of AI-related ministries equipped with gender-bias assessment tools.

Equally important is dedicated financial investment. Gender inclusion in AI policy cannot thrive without stable funding. Governments should earmark national budgets for women’s digital literacy, AI upskilling programmes, and research on algorithmic fairness, while development partners and donors should prioritise grants for gender-inclusive digital innovation. Public–private partnerships can amplify this by supporting women-led startups and entrepreneurship accelerators.

Who: Ministries of Finance, donor agencies, multilateral banks, and the private sector.

What: Allocate and mobilise funds for gender-equitable AI initiatives.

When: Ongoing, with short-term budget inclusion (2025–2027).

Indicators: Dedicated funding lines in national AI budgets; 25% increase in women-led AI ventures supported through national funds.

Stakeholder engagement and public trust are additional preconditions for implementation. Policymakers and technocrats may initially resist gender mainstreaming mandates, viewing them as bureaucratic or externally imposed. Overcoming this requires targeted advocacy and communication strategies that demonstrate how gender inclusion improves efficiency, innovation quality, and public legitimacy. The private sector may also hesitate to share data due to privacy or competition concerns; these can be mitigated through ethical data-sharing protocols and transparent public–private partnerships.

Who: Governments, civil society, tech companies, and media organisations.

What: Conduct advocacy and awareness campaigns and develop ethical data-sharing frameworks.

When: Medium term (2026–2029).

Indicators: National awareness campaigns in 10+ countries; 20 major firms adopt gender audits and ethical data-sharing standards.

To sustain momentum, countries should follow a phased implementation roadmap that aligns short-, medium-, and long-term goals with institutional maturity and regional collaboration.

Table 1.2 Phased Implementation Roadmap for Gender-Aware AI Governance

Timeline	Priority Actions	Lead Actors	Success Indicators
Short term (1–2 years)	Establish national Gender & AI task forces; conduct baseline gender audits of AI ecosystems; pilot training for policymakers	Governments, AU, Smart Africa	≥15 task forces established; ≥10 national audits completed
Medium term (3–5 years)	Revise AI strategies to include gender indicators and budgets; embed gender-aware AI ethics into university curricula	Governments, universities, donors	≥50% of AI policies revised; ≥20 universities adopting gender-AI modules
Long term (5+ years)	Standardize regional frameworks under AU and Smart Africa; institutionalize annual gender audits and progress reporting	AU, Smart Africa, national task forces	Harmonized continental reporting; ≥30 countries publishing gender-AI reports

Source: Author's construction

The success of these implementation measures ultimately depends on a shared recognition that gender inclusion is not a peripheral concern; it is a prerequisite for digital sovereignty, economic resilience, and ethical innovation. If African governments and institutions act decisively, they can transform AI governance from a source of inequality into a model of justice and innovation for the world. The window of opportunity is narrow, but the potential impact is transformative.



Conclusion

Across Egypt and the wider continent, AI strategies remain largely gender-neutral in rhetoric but gender-blind in implementation, risking the deepening of existing inequalities. Women, already under-represented in data, STEM education, and digital access, risk further exclusion from the systems that are redefining the future of work, governance, and knowledge.

This research exposes a persistent pattern: gender invisibility in AI strategies, an overly technical approach to ethics that sidelines social justice, and fragmented governance that disconnects gender from technology policymaking. These are compounded by the absence of sex-disaggregated and contextual datasets that could identify and mitigate algorithmic bias. These gaps amount to a new form of digital exclusion that erodes fairness, trust, and innovation. A shift towards gender-aware AI governance is essential: embedding gender perspectives in policy design, strengthening women's data and algorithmic literacy, and ensuring their full participation in decision-making. With political will, coordination, and resources, inclusive AI can embody African values of equity, community, and shared progress.

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