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**FINDINGS REPORT ON**

# Gender Perspectives and Artificial Intelligence Governance in Africa's Judiciary

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## Executive Summary

The integration of artificial intelligence into Africa's judicial systems is gradually taking shape. With early initiatives like Morocco's AI applications in courts, and Tanzania's AI-driven court transcriptions leading the way. These efforts are laying the groundwork for enhanced procedural efficiency and improved access to legal information across the continent. As courts digitise, the collection and analysis of datasets essential for AI training are becoming increasingly feasible, showcasing varied approaches to incorporating AI within African judicial frameworks.

However, the adoption of AI in these systems faces significant challenges, particularly concerning gender bias and the need for gender parity. While Africa has made strides in gender equality through various laws and initiatives, substantial disparities persist, especially in employment, digital access, and education. In African judiciaries, women make up an average of 40% of judges, with representation varying widely across countries. These disparities highlight systemic gender biases that can also affect AI training data, potentially leading to outcomes that do not fully represent diverse perspectives.

A major challenge identified is the lack of gender-disaggregated data in African judiciaries, a result of inadequate data collection methods and limited resources. This "data poverty," characterised by inconsistent and incomplete information, poses a significant barrier to effectively integrating AI while safeguarding gender rights. Other issues include algorithmic bias, the absence of comprehensive AI regulation, and a lack of awareness among judicial officials about gender biases in AI systems.

Addressing these challenges requires a multifaceted approach. Increase women's representation on the bench to achieve gender equity and enrich judicial reasoning. Adopt gender-neutral language within the judiciary to help counter stereotypes and promote inclusivity. These efforts are vital for shaping a more equitable judicial system and training AI algorithms that reflect diverse perspectives.

To ensure AI integration in African judicial systems is both effective and equitable, this report recommends strategies such as gender mainstreaming in justice reform, addressing biases in AI systems, and ensuring diverse data representation. Establishing an Artificial Intelligence Capacity Building Initiative and developing AI governance frameworks are also essential steps. These measures aim to promote justice and gender equality across the continent, ensuring AI's role in the judiciary supports these broader societal goals.

## Introduction

Calls have been made to ensure AI systems do not lead to prohibited discrimination, the digital divide, or a widening gender gap in Africa. But why does this matter? As highlighted by [Sharmaine Koh](#) during the first webinar, ongoing developments in legal and technological landscapes necessitate this conversation. There is a surge in legal questions concerning AI's implications for human rights, surveillance, and liability, alongside the increasing adoption of AI in judicial systems globally, including in Africa.

UNESCO and Lawyers Hub have asked how this discussion can be contextualised for Africa, recognizing the diversity of judicial systems both globally and within the continent. The AI market is expanding rapidly, with its implementation affecting virtually all industries, including the legal and judicial sectors. This will lead to digitalization, automation, and disruptive shifts in labour markets, altering job profiles and skill requirements.

# Methodology

With the progressive adoption of AI by African Judiciaries, there are emerging concerns; AI perpetuating gender bias, respect for fundamental rights such as privacy, and transparency, AI under user control among others.  To tackle these concerns, Lawyers Hub and UNESCO organised a series of three webinars focusing on the intersection of Artificial Intelligence and the experiences of women judges in Africa. This webinar series aimed to explore the challenges and opportunities presented by AI in legal systems, specifically focusing on its impact on women judges and the administration of justice in Africa.

# Webinar Series Outlook

This series of three webinars explored gender perspectives on AI and the rule of law in Africa, navigating gender rights in African legal landscapes, and institutionalising gender-transformative AI governance for Africa's judiciary. The webinars are as follows;

**Gender Perspectives on Artificial Intelligence and the Rule of Law in Africa**
The first webinar was held on April 18, 2024. The webinar featured insightful discussions from;

- **Teki Akuetteh (Ghana),** Founder & Executive Director of the Africa Digital Rights Hub LBG, Senior Partner at Nsiah Akuetteh & Co.
- **Neema Jaji (Tanzania),** Programme Officer Human & Peoples' Rights at Pan African Lawyers Union (PALU), Advocate of the High Court of Tanzania
- **Lilian Olivia Orero (Kenya),** Advocate of the High Court in Kenya a Gender and Data Protection Fellow at the Centre for Intellectual Property and Information Technology Law (CIPIT), Founder of Safe Online Women (SOW) Kenya

Artificial Intelligence's numerous opportunities for progress and development has with it challenges, particularly regarding gender equality, equity, and inclusivity. Its integration into our daily lives has highlighted critical concerns about women's limited access and participation in technological advancements, educational opportunities, and entrepreneurial ventures.

This webinar discussed the impact of AI on gender dynamics in Africa within the context of legal frameworks. It explored how AI technologies affect the rights, opportunities, and experiences of different genders and how African legal systems should respond. Speakers examined strategies to promote inclusivity and gender equality in AI development while upholding the rule of law in this rapidly evolving field.

Watch the webinar recording HERE

**Breaking Barriers: Navigating Gender Rights in African Legal Landscapes**
The second webinar was held on May 23, 2024. The Speakers were:

- **Christine Okeno (UN Women)** - Program Analyst for Ending Violence Against Women and Girls at the UN Women Kenya Country Office
- **Jacqueline Ingutiah (Kenya)** - Commissioner at the Judicial Service Commission, Kenya, and Regional Coordinator of the Kenya National Commission on Human Rights
- **Flavour Borokini (Nigeria/UK)** - Lawyer and digital rights researcher focusing on gender and technology
- **Hlengiwe Dube (South Africa)** - Expression, Information, and Digital Rights Project Manager at the Centre for Human Rights
- Moderated by: **Maria Mbeneka,** Council Member of the Commonwealth Lawyers Association

The webinar explored the legal frameworks, challenges, and opportunities for advancing gender rights within Africa's rapidly evolving digital landscape. Foster dialogue among participants to identify effective strategies for overcoming barriers and promoting gender equality. The discussion focused on navigating gender rights within African legal systems, tackling issues like colonial legacy laws, entrenched cultural norms, weak institutional capacities, and inadequate funding.

Watch the webinar recording HERE

**Institutionalising Gender-Transformative Artificial Intelligence Governance Within Africa's Judiciary**

The third and Final Webinar was hosted on June 20, 2024. The speakers were;

- Christine Mutimura-Wekesa - Deputy Registrar at The East African Court of Justice
- Rose Wachuka Macharia - Chief of Staff, Office of the Hon. Chief Justice of the Republic of Kenya and President of the Supreme Court of Kenya
- Judge Sylvester Alborh - Judge, Circuit Court of Ghana
- Angela Minayo - Advocate of the High Court of Kenya and the Digital Rights and Policy Programs Officer at Article19 Eastern Africa

Moderated by Nafissatou Tine, Sunulex (Senegal)

The webinar focused on addressing the critical issues of gender bias and systemic inequalities in the deployment of AI technologies within African judicial systems. With an aim to foster a dialogue on creating and coming up findings and solutions that promote gender equity within Africa's judiciary. Highlighting the challenges and opportunities in integrating gender-sensitive AI. Focus on enhancing women's participation in AI development, mitigating gender biases in AI tools, and ensuring that AI applications in the judiciary are fair and just.

Watch the webinar recording HERE

## Analysis of the key Discussions from the Webinars Series

### ◊ AI Integration into Africa's Judicial Systems

The advancement of AI in Africa's judicial system is inevitable. As noted by Judge Sylvester Ablorh,

> "AI has come to stay with the judiciary, at the judicial system and in dispensing justice to all." Africa cannot avoid the question of using AI in courts.

The discussions noted that presently, AI is not utilised in the African judicial system in a substantive manner as most countries have not adopted AI into their systems. The AI integration in Africa's judiciary has been slow with the continent witnessing progressive administration and adoption of AI. Currently only 2 countries, Tanzania and Morocco have developed and started integration of Artificial Intelligence into their judicial system.

### Morocco

The country is using AI in its courts to transcribe rulings, conduct research, retrieve archived texts, and more.[1] The justice ministry plans to leverage AI to better utilise judicial precedents. By facilitating access to judgments stored in digital systems, AI will assist judges in forming well-informed views on the cases before them. The ministry also intends to use AI to record and transcribe court sessions automatically, addressing the challenges posed by the Darija dialect and the Amazigh language

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1    Philippine News Agency. "Morocco Uses AI in Its Courts." June 12, 2024.

### Tanzania

Tanzania has introduced an AI-driven transcriptions and translations system. This system is designed to handle the diverse dialects of Kiswahili, the national language spoken across Tanzania's mainland and Zanzibar, as well as English, facilitating real-time, accurate translations and transcriptions.[2]

The initial phase targets 50 courtrooms out of Tanzania's 169, with 11 courtrooms already equipped with AI technology. Almawave's system is tailored to recognize and process various speech patterns in Kiswahili and English, aiming to reduce manual errors and delays in court documentation.  The AI system's outputs can also be reviewed by human staff to ensure accuracy before becoming official records. This technological advancement is expected to streamline the judicial process, reduce errors, and ultimately improve the efficiency of Tanzania's legal system.

### Kenya

The country is also set to implement an AI-powered transcription system to enhance court proceedings. Speaking at the 2024 Chief Justice's Roundtable, Chief Justice Martha Koome announced that this AI tool is a key component of the Judiciary's ongoing digitization efforts, providing transcription services across multiple court stations. Koome also mentioned that as the project progresses, a dedicated Judiciary Transcription Centre will be established to extend these services nationwide.[3]

Africa is aware that the introduction of AI to the justice system promises to improve procedural and administrative efficiency, aid in decision-making processes for judges, and predict outcomes consistent with past precedents.

The development, integration, and implementation of AI systems in judicial systems have been notably slow, with the webinars identifying several key challenges contributing to this lag. The challenges are as shown below:

### Challenges facing AI Integration in African Judiciaries



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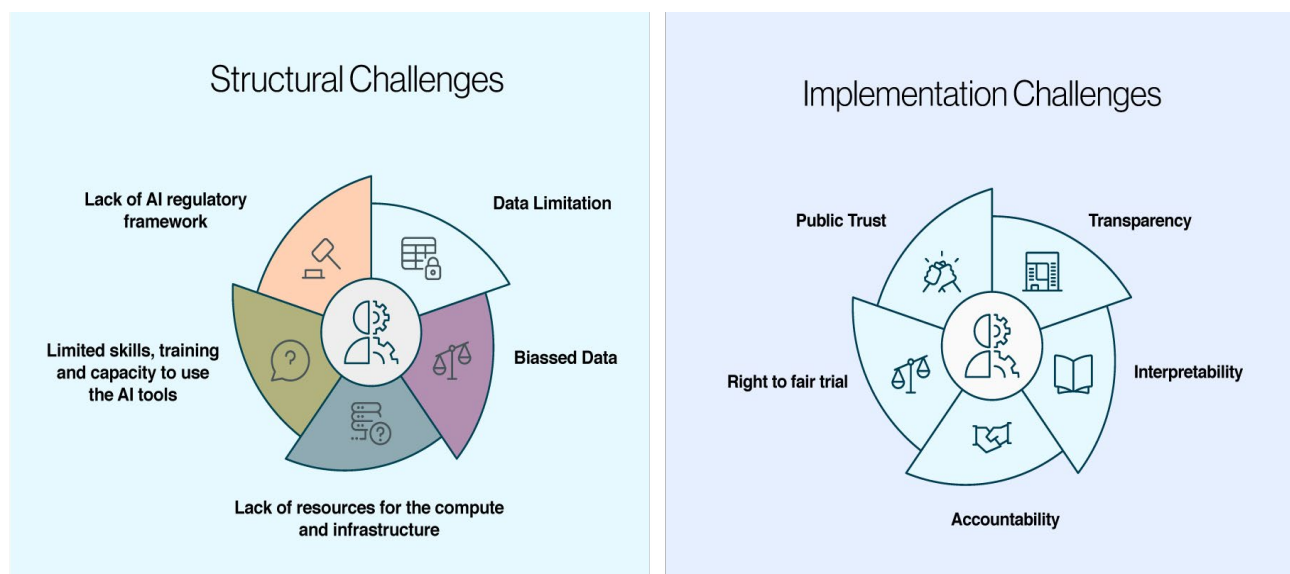
2    Kaijage Robert. "Tanzania's Court System Goes for AI Solutions." Africa Legal, March 4, 2024.
3    Fridah Naliaka. "Judiciary to Roll out AI-Powered Tool for Transcription of Court Proceedings." Citizen Digital, July 17, 2024. https://www.citizen.digital/news/judiciary-to-roll-out-ai-powered-tool-for-transcription-of-court-proceedings-n346025.

**Structural Challenges**

**1. Data Limitation**

Teki Akuetteh noted that most, if not all, AI tools and algorithms used in Africa today have been developed in the Global North. They reveal a significant underrepresentation of African datasets in training datasets. Algorithms often trained on datasets that do not reflect the diversity of African cultures and languages, lead to biassed outcomes.

It is no secret that Africa faces a significant data limitation problem, lacking the quality, accuracy, and completeness of datasets necessary for effectively training AI algorithms. AI systems perform best when trained on comprehensive and diverse datasets, yet the majority of data used for training these systems predominantly originates from North America, Europe, and Asia. Another barrier is the limited language datasets in Africa. Existing large language models, like OpenAI's ChatGPT, are primarily trained on data from Western and English-speaking countries.

The judicial sector across Africa is particularly affected by this data challenge, hindering the development and adoption of advanced technologies like AI.

> Among the 55 countries on the continent, only a small fraction—at most 10—have established legal databases or repositories, meaning that approximately 18.18% of African nations have accessible legal databases, leaving the vast majority without a centralised, reliable source for legal information.

Data is a key enabler of developing AI models. If we do not have quality, quantity, accurate and complete data sets then it will be a challenge for the judiciaries to develop AI systems that are tailor made for them specific needs, cultural values, laws and processes.
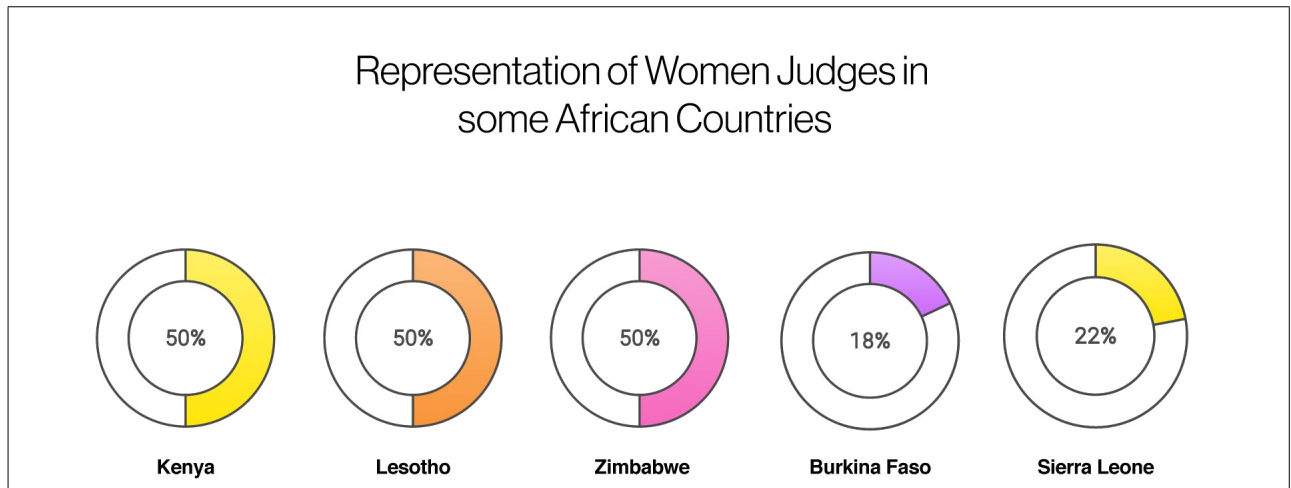
**2. Biassed data.**

AI algorithms often have inherent biases from their creators and datasets. Gender bias in AI arises primarily from two sources: the biases present in the training datasets and the biases of the individuals developing and deploying these models.

Albeit the strides, Africa has historically faced significant gender equality issues which form part of the continent's current data. Cultural norms often reinforce traditional gender roles, limiting women's influence and involvement in decision-making. These norms are supported by outdated, discriminatory laws from colonial times, which persist today. Participation in STEM education also remains low, with most African countries having below 20% of women graduates in STEM fields.[4]

In the Judicial sector, women's representation has seen significant growth over the years. However, gender disparities persist despite increasing female enrollment in law schools and rising numbers of female

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[4] Jane Amunga and Amadalo Maurice Musasia. "The Gender Stem Gap and Its Impact on Sustainable Development Goals and the Big Four Agenda in Kenya: A Synthesis of Literature." RedFame, n.d.

judicial officers. On average, 4 in 10 judges in Africa are women, with representation across the continents shown below.[5] In addition, Mauritius and Madagascar have a 61% and 51% proportion of female judges.[6] In most African countries, women are notably absent in the highest judicial positions, reflecting broader regional challenges.

## Representation of Women Judges in some African Countries

| Kenya | Lesotho | Zimbabwe | Burkina Faso | Sierra Leone |
|:-----:|:-------:|:--------:|:------------:|:------------:|
| 50% | 50% | 50% | 18% | 22% |

In terms of the proportion of female judges by region, Europe leads the way with an average of 54%, followed by the Americas with 51%. These figures contrast, however, with those for Oceania, Africa and Asia, where women account for 31%, 30% and 29% of the total, respectively.[7]

Proportion of Female Judges by Region

- Europe 54%
- Americas 51%
- Africa 30%
- Oceania 31%
- Asia 29%
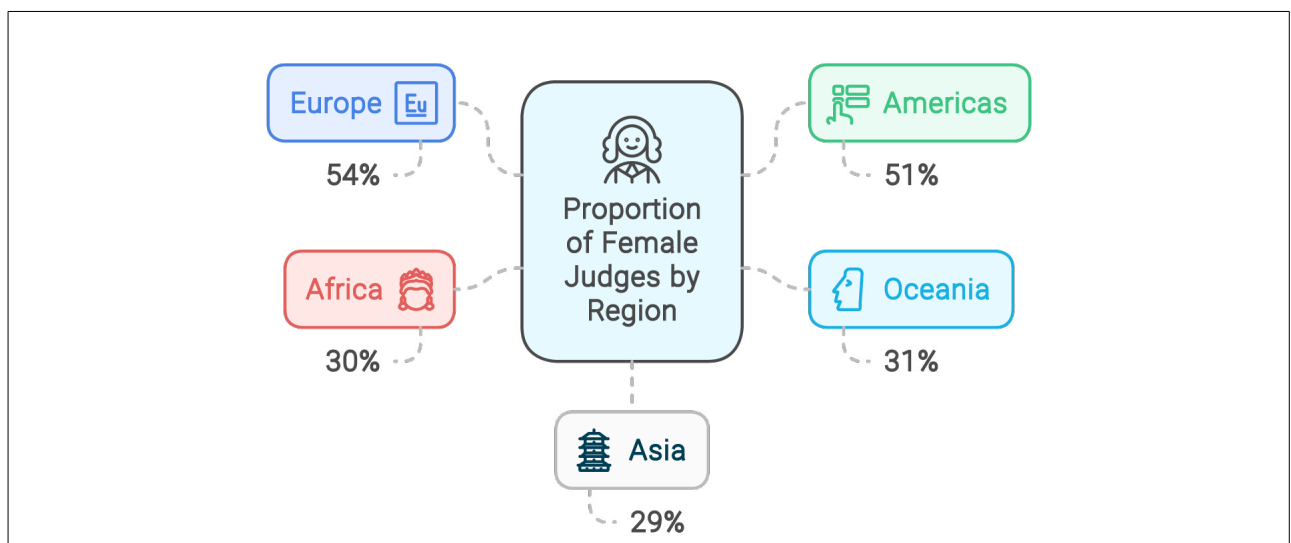
In Africa, women encounter numerous challenges within various social and judicial contexts. In some regions, women are restricted from serving in certain judicial roles, such as religious or criminal courts, and their participation is often contested by different judicial actors. This exclusion is compounded by threats and violence that many women face as a result of their involvement in the legal system.[8]

5    "In Africa, Women Judges Improve Trust in Courts, Bring Justice to the Less Privileged and Empower Women and Girls." UNDP, June 6, 2023.
6    United Nations Statistics Division, Minimum set of gender indicators.
7    United Nations Statistics Division, Minimum set of gender indicators, qualitative indicator 47:Percentage of female judges (see https://genderstats.
un.org); United Nations Economic and SocialCommission for Western Asia, Office of the United Nations High Commissioner for Human Rights
and International Commission of Jurists, Women in the Judiciary in the Arab States: Removing Barriers, Increasing Numbers, 2019, pp. 26 et seq.; and
European Commission for the Effici ency of Justice, European Judicial Systems: Gender equality in courts and public prosecution services.
8    United Nations Economic and Social Commission for Western Asia, Office of the United Nations High Commissioner for Human Rights and Interna-

From the aforementioned;

> There exist gender imbalances in Africa, which is contained in the majority of the existing data on the continent and extends to multiple sectors, including the judicial sector - reflecting broader systemic gender biases. This scenario reveals potential sources of bias that influence AI training data, as these and similar narratives are what AI systems are trained on.

### 3. Lack of resources for the compute and infrastructure.

Africa's infrastructure deficit presents a significant barrier to the deployment and effectiveness of AI technologies. One of the key challenges is the lack of reliable electricity, which is crucial for powering AI systems. Machine learning models, especially those involving deep learning and large-scale computations, consume substantial amounts of energy.[9] This high energy demand highlights the disparity between the needs of advanced AI technologies and the current state of Africa's electricity infrastructure.

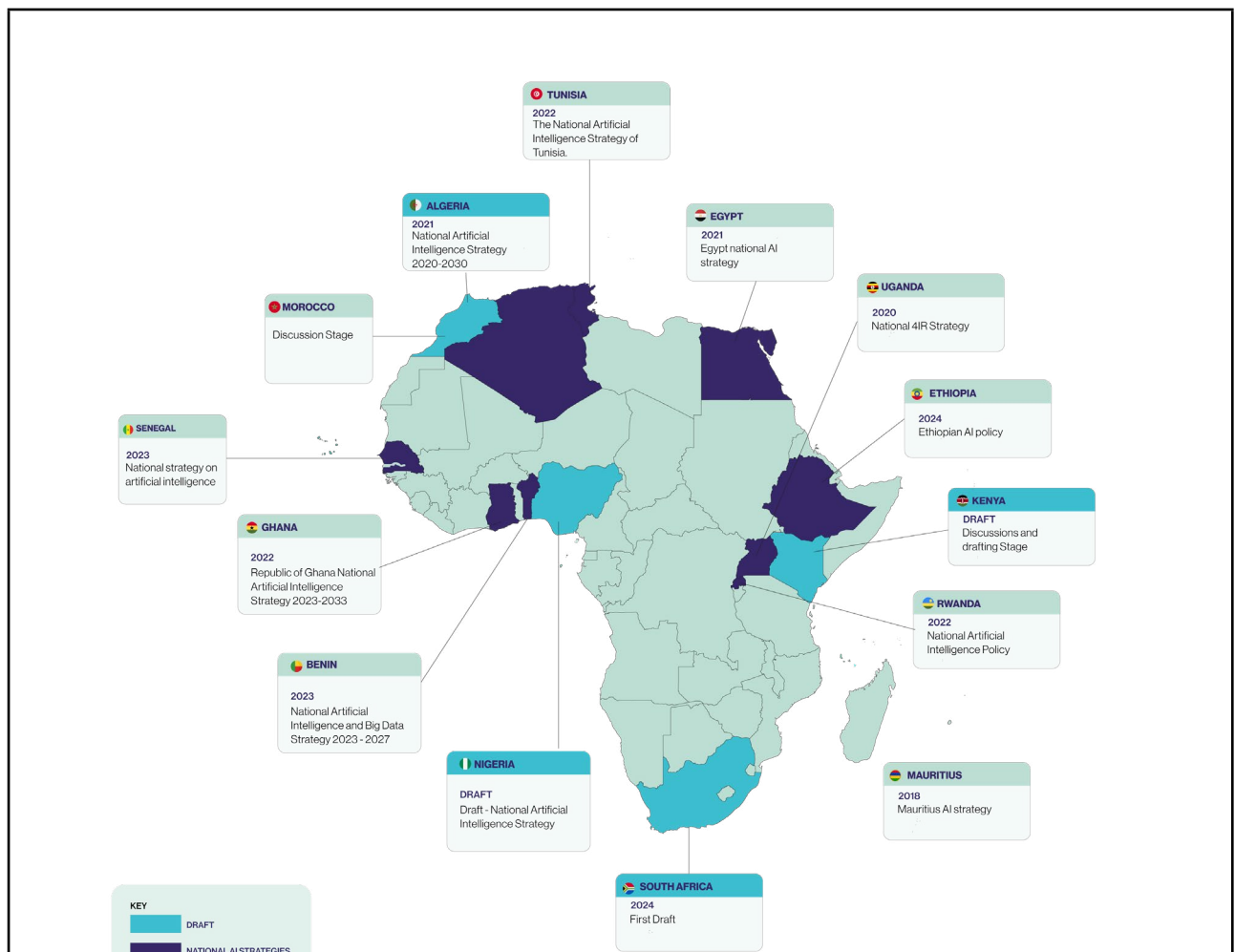### 4. Limited skills, training and capacity to use the AI tools.

There is a shortage of skilled AI professionals in Africa which is a significant barrier to adoption. African countries struggle to produce and retain talent with expertise in AI, machine learning, and data science. This skills gap impedes the development and deployment of AI applications across various sectors including the judiciary.

### 1. Lack of AI regulatory framework

No African country has a defined AI law. Only 9 have AI strategies and policies with at least 3 at the development stages as shown below. The absence of a regulatory framework for AI creates significant challenges for its implementation and adoption for the judicial sector. The challenges include Legal uncertainty, Ethical and privacy concerns, inconsistent standards across different jurisdictions and more. Without clear regulations, developers may be unsure about the legal implications of their AI systems, leading to hesitation in adopting new technologies due to fears of potential legal consequences or compliance issues.

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tional Commission of Jurists, Women in the Judiciary in the Arab States....

9    James Vincent. "How Much Electricity Does AI Consume?" The Verge, February 16, 2024. https://www.theverge.com/24066646/ai-electricity-energy-watts-generative-consumption.

**TUNISIA**
2022
The National Artificial
Intelligence Strategy of
Tunisia.

**ALGERIA**
2021
National Artificial
Intelligence Strategy
2020-2030

**EGYPT**
2021
Egypt national AI
strategy

**MOROCCO**
Discussion Stage

**UGANDA**
2020
National 4IR Strategy

**ETHIOPIA**
2024
Ethiopian AI policy

**SENEGAL**
2023
National strategy on
artificial intelligence

**KENYA**
DRAFT
Discussions and
drafting Stage

**GHANA**
2022
Republic of Ghana National
Artificial Intelligence
Strategy 2023-2033

**RWANDA**
2022
National Artificial
Intelligence Policy

**BENIN**
2023
National Artificial
Intelligence and Big Data
Strategy 2023 - 2027

**MAURITIUS**
2018
Mauritius AI strategy

**NIGERIA**
DRAFT
Draft - National Artificial
Intelligence Strategy

**SOUTH AFRICA**
2024
First Draft

**KEY**
DRAFT
NATIONAL AI STRATEGIES

## Implementation Challenges

### 1. Transparency

AI algorithms often operate as black boxes making it unclear how they were trained or whether they harbour biases. This opacity will prevent parties from understanding or addressing potential biases within the models, as the training data and processes are not traceable.[10] This challenges users to understand how these systems make decisions, why they produce specific results, and what data they're using.

Christine Wekesa discussed the potential of AI to enhance transparency in judicial processes.

> 'Transparency essentially means that the processes involved in court matters, including the actions of judges and the adjudication outcomes, are open to public scrutiny. AI and automation can facilitate this transparency by enabling the public to observe court processes and access standardised court decisions more easily.'

For AI algorithms used in judicial decision-making, transparency is crucial. Without it, parties may be subjected to biassed or discriminatory outcomes with no means of recourse. Ensuring AI transparency in the judiciary is essential to maintain fairness, accountability, and trust in legal outcomes. Being trans-

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10　"AI: 'The Biggest Challenges Are the Biases and Lack of Transparency of Algorithms.'" CIVICUS, August 24, 2023.

parent about the data that drives AI models and their decisions will be a defining element in building and maintaining trust with customers.[11] However, achieving transparency in AI when used in judiciaries remains complex.

For instance, in the case of R v McCann,[12] an automated facial recognition system was used as evidence without disclosing its accuracy or reliability, casting doubt on the fairness of its use. Another challenge stems from proprietary models and trade secrets held by AI developers or vendors. These intellectual property rights can impede access to critical information necessary for understanding how AI systems function within legal contexts. In State v Loomis,[13] concerns were raised when an algorithm was used for sentencing recommendations without disclosing its methodology or factors considered, limiting defendants' ability to challenge or fully understand these recommendations.

## 2. Accountability

The fundamental question is: who will be held accountable? AI systems, without human involvement, lack the necessary qualities to ensure fair and just outcomes. Therefore, accountability is a cornerstone in our approach to responsible AI.

AI presents a unique challenge for accountability. While an AI system can make decisions similar to humans, it does not possess human characteristics such as consciousness, intentionality, or moral agency to take responsibility for its actions. This complicates the delegation of tasks to AI systems and the attribution of accountability for AI outcomes.

Sociotechnical systems, which combine rules and customs from various contexts, further complicate the attribution of accountability. The opaque and unpredictable outcomes of AI systems pose challenges in pinpointing individual responsibilities for wrongdoings, similar to the 'many hands' problem.[14] Factors such as biased training data, system bugs, and the replication of social discrimination further complicate determining accountability for AI-perpetrated wrongdoings.

## 3. Interpretability

One significant challenge the judiciary will face in implementing AI systems is interpretability—the ability of humans to understand and explain how AI arrives at its conclusions or recommendations. It is very important that AI decisions are comprehensible to both legal professionals and citizens alike. If AI outcomes are not interpretable, it becomes difficult for legal parties to understand why certain decisions were made. This undermines trust in the justice system.

> For example, in Ghana, an AI algorithm was employed to predict recidivism rates during bail hearings. However, the opaque nature of this system's decision-making process prevented judges and lawyers from assessing its accuracy or effectively challenging its outcomes (Alemi et al., 2019). As a result, defendants were unable to fully comprehend or contest decisions that significantly impacted their lives, affecting the fairness of trials.

Similar interpretability issues have been observed globally, including in the US, UK, Australia, and Canada. In the United States, for instance, an individual was denied parole based on an assessment by the COM-

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11    Zendesk CX Trends Report 2024.
12    R v McCann [2019] UKSC 34.
13    "State v. Loomis (881 N.W.2d 749 (Wis. 2016) )." Harvard Law Review, n.d. https://harvardlawreview.org/print/vol-130/state-v-loomis/#footnote-7.
14    Poel, van de, I. R., Royakkers, L. M. M., & Zwart, S. D. (Eds.) (2015). Moral responsibility and the problem of many hands. Routledge Taylor & Francis Group. https://doi.org/10.4324/9781315734217.

PAS algorithm.[15] However, the defendant's inability to understand how COMPAS arrived at its decision hindered efforts to challenge its accuracy or bias effectively, compromising trial fairness. In Australia, concerns have been raised about the use of automated facial recognition technology by law enforcement.[16] The lack of clarity around these systems' decision-making processes eroded public trust and confidence in their unbiased use, especially among marginalised communities.

Without a clear understanding of how these systems arrive at their decisions, parties are unable to challenge or question their outcomes effectively.

## 4. Right to a fair trial

With the challenges of transparency and interpretability, AI poses significant challenges to ensuring a fair trial. AI algorithms and tools that will be used in the judicial systems will often rely on complex models that are difficult for individuals without technical expertise to understand fully. As a result, parties may be unable to challenge or question decisions made by these algorithms effectively and this lack of transparency can undermine their right to present an effective defence and receive a fair trial.

## 5. Public Trust

As AI becomes more prevalent and used in the judicial systems, there is a risk that public confidence may erode if people perceive decision-making processes as biassed or unfair due to opaque algorithms. This loss of trust could have far-reaching consequences for both individual cases and overall societal stability.

**Gender challenges to AI integration in African Judiciaries**

The primary obstacles hindering the effective integration of AI while safeguarding gender rights in African legal systems as noted in the webinars include:

1. Lack of Gender-Disaggregated Data (GDD)

The African continent lacks GDD. According to a study by Data2X and Open Data Watch, 48% of gender-relevant indicators are missing or lack sex-disaggregated data in study countries across Africa, both at international and national levels.[17] International databases show that 22% of indicators lack any sex-disaggregation, while 26% are entirely missing data.[18] In national databases, although there are fewer missing observations (35%), a substantial 13% lack sex-disaggregation.[19] This challenge is even more in the legal data needed for the AI judicial tools.

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15    Angwin, J., Larson, J., Mattu, S., & Kirchner, L. (2016). Machine bias: There's software used across the country to predict future criminals. And it's biassed against blacks. ProPublica. Retrieved from https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing
16    Office Of The Victorian Information Commissioner (OVIC). (2020). Submission on Victoria Police's Use Of Automated Facial Recognition Technology: A Consultation Paper By The Independent Broad-based Anti-corruption Commission (IBAC). Retrieved from https://ovic.vic.gov.au/wp-content/uploads/2020/10/OVIC-Submission-on-IBACs-Consultation-Paper-on-Victoria-Polices-use-of-Automated-Facial-Recognition-Technology.pdf
17    "Bridging Gender Data Gaps in Africa." Open Data Watch, March 2019.
18    Ibid.
19    Ibid.
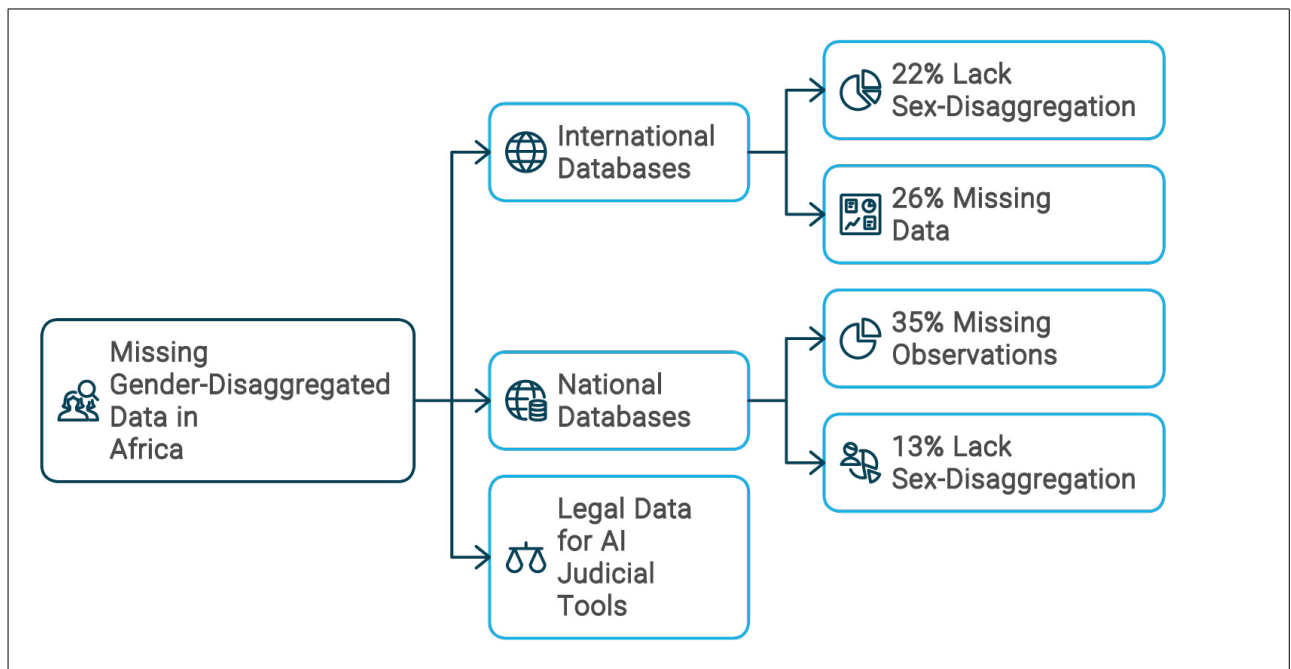
GDD involves collecting and analysing data with a specific focus on gender, enabling the identification of differences between men, women, and other gender groups. This approach allows understanding of how various factors and outcomes affect different genders.

The lack of GDD poses a significant challenge to identifying and addressing gender biases in AI systems. Without such data, AI training reflects only one gender's experiences, perpetuating inequalities and biassed outcomes that affect genders unequally.

The challenge for judicial authorities in Africa lies in;

- collecting and utilising gender-disaggregated data.
- Limited resources and capacity hinder gathering, analysing, and reporting GDD.
- The absence of standardised methods contributes to inconsistent reporting practices across regions and countries in Africa.
- There is a notable lack of investment in researching and analysing GDD, which affects the types of data collected.

These challenges lead to significant gaps in data availability and quality, particularly concerning gender-specific information for AI integration in judicial systems.

- Without accurate and comprehensive GDD, biases can be embedded in AI algorithms, perpetuating inequalities in judicial outcomes.
- The lack of data transparency and accountability also hampers evidence-based policymaking to address gender inequalities within legal frameworks.
- Without robust GDD, assessing AI's true impact on genders becomes difficult, undermining efforts for fair judicial processes.
- This data shortfall complicates the development of AI technologies that accurately represent and address the needs and rights of women and other marginalised gender groups.

2. Data Poverty

Data poverty is another challenge impacting AI integration into the judiciary.

> Refers to the lack of access to data or the inability to use data effectively.

This issue is particularly acute in Africa, where data is often scarce and of poor quality. The challenges in Judicial Systems in Africa include;

- Lack of mechanisms for systematically collecting and recording data on cases, outcomes, and other relevant metrics,
- Collected data often suffers from inconsistencies, inaccuracies, and gaps due to a lack of standardised procedures, inadequate personnel training, or insufficient resources.
- Lack the necessary technological infrastructure to efficiently collect, store, and analyse data.
- Outdated computer systems, lack of internet connectivity, and insufficient technical expertise are common issues.
- Limited financial and human resources that hinder efforts to improve data collection and management practices, as courts often operate with constrained budgets that impact their ability to invest in better data infrastructure and training.

Due to data poverty;

- Current AI tools in Africa are mostly developed using data that is not Africa-centric.
- The absence of local data affects the training of Judicial AI models, preventing them from accurately representing the experiences of actual users.
- Language training models learn from available data, so if African data is not included, the AI outputs are biassed and unsuitable for local needs

3. Algorithmic Bias

Africa has experienced cultural and historical gender inequalities for many years. Majority of datasets in Africa contain biases rooted in this history;

- Customary laws in African countries have also been discriminatory, biassed, and culturally insensitive to women. For example, discrimination against women and girls remains widespread in family laws across Africa.
- Research by Equality Now reveals that gender inequality in marriage, divorce, custody, and property rights is perpetuated by sex discrimination institutionalized within legal systems and customary laws.[20] Progress has been slow, inconsistent, and hampered by setbacks, lack of political will, and weak implementation.
- Discriminatory customary laws still exist in many countries' laws.
- The judiciary often has the discretionary power to decide whether or not to apply customary law, disregarding the principle of precedent and the constitution. Many women continue to suffer because of this loophole, which governments clearly need to close.

If the data used to train AI models includes these discriminatory laws and judgments, AI tools will produce biassed outcomes. Language training models learn from each other, so if inclusive knowledge isn't part of their learning, the data they provide will be biassed and unsuitable for those using it.

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20    "Women in Africa Face Discrimination in Family Laws." Equality Now, May 15, 2024.

**Integrating a Gendered Perspective in Judiciaries**

Gender equality and integrating a gendered perspective in the justice sector in the era of AI are crucial. It facilitates equal access to justice, enhances security, and bolster the rule of law. Ensure that all individuals, regardless of gender, have equal opportunities to participate in legal processes, have their rights protected, and receive equitable treatment under the law. This significantly contributes to sustainable development. The 2030 Agenda for Sustainable Development, particularly Sustainable Development Goal (SDG) 5, which focuses on gender equality, and SDG 16, which emphasises accountable and inclusive institutions, underscore the importance of advancing a gender-equitable justice sector.

In the era of AI, addressing gender equality becomes even more significant. AI systems, when integrated into the justice sector, have the potential to either reinforce existing biases or help counter them if designed with a gender perspective in mind. Therefore, carefully design and use of AI systems to avoid perpetuating biases and to support the transformation of societal inequalities. This commitment is essential for addressing systemic inequalities and ensuring that AI contributes positively to a fair and inclusive justice sector.

A judiciary that integrates gender equality envisions a justice sector where AI tools are developed, adopted, and implemented to ensure the fair application of the law without discrimination. It mandates that AI algorithms utilise inclusive, representative, and non-discriminatory data, being responsive to the diverse needs of women, men, and people of various sexual orientations and identities. Such responsiveness ensures that justice sector tools are attuned to the experiences and needs of individuals interacting with these systems, promoting equal access to justice for all.

To achieve this vision, address biases in existing datasets and algorithms, prioritise the development of AI systems that are technically robust, ethically sound, and gender-sensitive to ensure fair and equitable outcomes. Transparency is key, enabling stakeholders, judges, legal practitioners, and the public to understand how AI technologies are adopted and implemented in the sector. This openness fosters trust and accountability, ensuring that the integration of AI in the judiciary is aligned with principles of fairness and justice. By embedding these practices, the judiciary can leverage AI to not only enhance its efficiency and effectiveness but also to uphold and advance the ideals of gender equality and inclusivity.

## Action Plan and Recommendations

**Strategies for Advancing Gender Equality and Integrating a Gender Perspective in the Era of AI**

Advancing gender equality and integrating a gender perspective in the era of AI requires a multi-faceted approach that addresses systemic biases and promotes inclusivity at every stage of AI development and deployment. Crucial strategies include:

- **Gender Mainstreaming in Justice Reform**

Incorporate gender perspectives into all aspects of the justice system. Implemente gender-sensitive decision-making, sensitise justice sector actors to gender issues, develop a gender-responsive legislative and policy framework, and ensure the justice sector meets the needs of diverse groups. Promote the legal empowerment of women, provide requisite budgetary and political support, and raise public awareness of gender equality and human rights.

- **Identifying and addressing biases in AI systems**

Identify and address biases in AI systems throughout their development and deployment. Bias can manifest in the initial training data, the algorithms themselves, or the predictions generated. Research demonstrates that embedded discriminatory data and algorithms can magnify biases at scale, leading to harmful outcomes. To eliminate AI bias in judiciaries, rigorously examine datasets, machine learning algorithms, and other AI components to pinpoint potential sources of bias. Several strategies can be employed to achieve this goal:

1. Focus on **training data bias.** Conduct thorough audits of training data to identify and mitigate biases, ensuring that data sampling methods represent diverse demographic groups and geographic regions.
2. Address **algorithmic bias.** Implement robust bias detection and mitigation techniques within the algorithm development process. Regularly audit and evaluate algorithm outputs. Involve diverse teams in the development process. Provide transparency in algorithm design and decision-making criteria, and enable external audits to ensure accountability and trust. Continuously educate and train developers on the implications of biases and ethical AI practices to foster a culture of fairness and responsibility in AI development.
3. Tackle **cognitive bias** in AI systems. To address this, involve diverse and interdisciplinary teams in the data selection and algorithm development process to bring a wide range of perspectives. Implement systematic procedures for evaluating and correcting biases at all stages of the AI development lifecycle, from data collection to model deployment.

To address AI bias in systems developed for the judiciaries in Africa, several strategies can be employed.

1. Collect diverse data sets to ensure training data represents the diverse population it serves.
2. Algorithmic audit through rigorous testing and evaluation to detect and address biases before deployment.
3. Promote interdisciplinary collaborations between AI researchers and domain experts
4. Adopt transparency and explainability in AI algorithms to pinpoint sources of bias and take corrective measures.
5. Fostering diversity within AI development teams can help mitigate biases and promote more equitable AI technologies.

- **Capacity Building and Training**

Establish an Artificial Intelligence Capacity Building Initiative within the judiciary. This initiative will aim to enhance AI literacy and awareness among judicial professionals by organising Training of Trainers (ToT) courses, integrating educational materials into curricula, and fostering skills development in AI use and implementation.

The capacity building program should support ongoing skills development and understanding of AI tools and applications within the judiciary, with provisions for knowledge sharing among colleagues. It should also facilitate peer-to-peer learning and engagement with co-learners to enhance AI literacy across the judiciary.

Specialised training programs for judges, legal professionals, and AI developers should cover topics such

as gender issues, AI ethics, and the implications of AI in judicial decision-making. This includes understanding and mitigating biases that can manifest in AI algorithms, ensuring informed and ethical use of AI technologies in legal contexts.

- **AI Governance**

That involves developing AI governance mechanisms, frameworks, and policies for the development, implementation, and use of AI tools across judiciaries in Africa. This initiative includes creating a continental guide for the judiciary, serving as a foundation for the development of national policies and guidelines tailored to local contexts. Effective AI governance establishes policies, practices, and frameworks that promote responsible development and use of AI technologies while directing, managing, and monitoring AI activities within the judicial sector. By ensuring equitable distribution of benefits to judicial actors and society, AI governance plays a pivotal role in fostering fair and unbiased AI systems.

To ensure fairness and mitigate bias, the justice sector must adopt comprehensive goAvernance strategies that include clear guidelines and involve diverse stakeholders throughout the AI lifecycle. These guidelines should encompass bias mitigation in data collection, algorithm development, system deployment, and ongoing monitoring. Implementing holistic AI solutions supports responsible AI governance through independent audits, comprehensive risk assessments, and meticulous oversight of AI systems within the judiciary.

**Strategies for effective AI Governance frameworks and Gender-Responsive AI Integration for Africa's Judiciary**

The most effective strategies for AI governance in the judicial sector include

- Implementing comprehensive policies, guidelines, and regulatory frameworks.
- Utilising sandboxes for testing, fostering multidisciplinary collaboration,
- engaging diverse stakeholders are essential.
- Robust data governance, quality assurance, pilot programs, and impact assessments are crucial.
- Regional and international cooperation, along with mechanisms for continuous monitoring and feedback, will ensure ongoing improvement in AI system performance.

Africa's judicial AI governance should consist of frameworks, policies, and best practices that serve as guardrails to minimise potential risks from bias and maximise intended benefits. Effective AI governance in the judicial sector should address AI algorithms, decision-making, data privacy and security, and the potential economic and social impacts of this technology.