The GLOCEPS
Policy Brief

Artificial Intelligence (AI) and the future of democratic governance in Eastern Africa: Lessons for Kenya
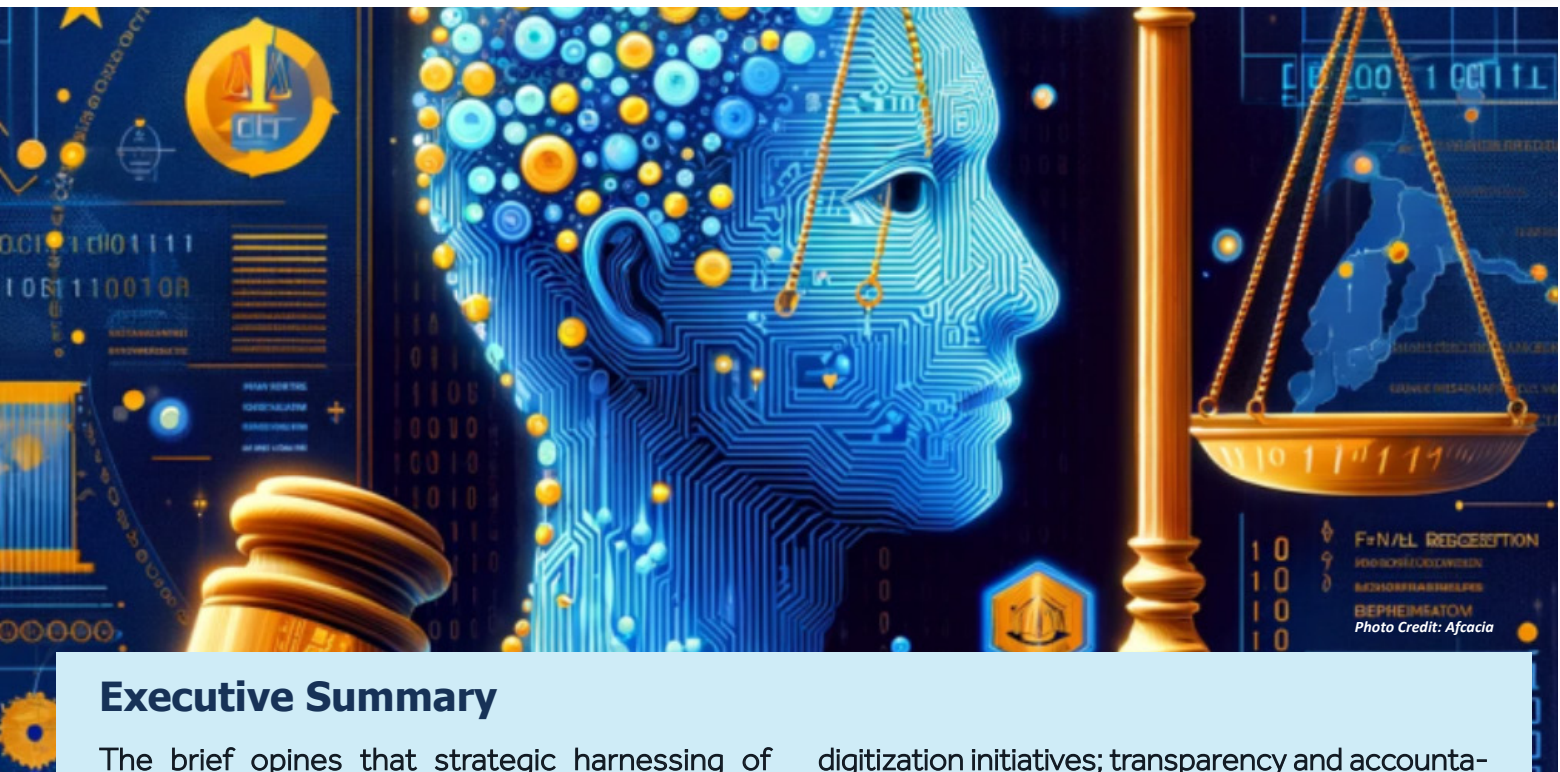
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Executive Summary

The brief opines that strategic harnessing of Artificial intelligence (AI) technology systems can potentially strengthen democratic processes in Kenya and the region. With policy conversations on AI being driven majorly by commercial and geopolitical imperatives, the vulnerabilities in the adoption of generative technology can be exacerbated by the geopolitics of AI governance due to advancements in globalization. The complex nature and nascent state of the adoption of AI in the country offer strategic options for harnessing AI-based technologies in democratization processes. The options lie in embracing AI-based innovations in strengthening government

digitization initiatives; transparency and accountability; national security; delicate balance of information overload in political advocacy. The brief concludes that the deployment and adoption of the applications could enable citizens to access information, participate in decision-making, and hold the government accountable. However, if misused can threaten the democratic governance gains, leading to a breach of the constitutional order. Key recommendations include that the Ministry of Information, Communications, and The Digital Economy should develop a National AI strategy to provide guidelines and regulations for large-scale deployment of AI; establish AI

multi-sectoral oversight board; accelerate AI-research-led and knowledge development and transfer strategies; capacity building and sectoral retooling on AI use; selective collaboration public-private in AI infrastructure investment; scale up funding for AI innovations and incubation centres; develop reliable and aggregated public data ecosystem; and legislate appropriate AI laws based on Kenya's and the region's needs.

Context

There is an increasing proliferation of AI systems used globally that could impact democratic governance in Eastern Africa, and Kenya in particular. Technology innovations such as deep fake technologies, psychographic micro-targeting, smart bots, algorithmic real-time advertising, and ChatGPT applications present opportunities and threats to democratic governance. They can interact with social media users, learn their attitudes about social, political, or economic processes, and generate and post results that influence decision-making processes. The applications can mobilize simultaneously, psyche the agenda, and energize for action to resist or agree on various government policies. Similarly, deployment of the technology is domain-specific and decisions based on learned data may fail to address the social and economic needs of citizens disaffecting their well-being. Online searches related to Artificial intelligence (AI) in Kenya increased by 400% over the last five years. The 2024 Stanford AI Index shows that 27% of

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Kenyans use ChatGPT daily, coming third behind India and Pakistan. Similarly, statistics from Google Analytics indicate an increasing trend in consumer interest in AI use across Africa, rising by 270% over the last year.

Over the past decade there has been innovation advancement in computing and deep learning that have let enhanced capabilities in object recognition, predictive modeling, text, image, and video generation, and decision-making processes. This has led to digital gathering of volumes of information over a large period enabling the prediction of events based on repeated occurrences. This has led to the re-emergence of AI, 70 years later since its existence. Canada was the world's first country to develop a national AI strategy in 2017. Other countries have followed, including the United Kingdom, Egypt, Mauritius, Singapore, and Brazil. Other global efforts to regulate AI systems include the adoption of the OECD Principles on AI in 2019, and UNESCO Recommendations on the Ethics of Artificial Intelligence in 2021; the signing of the Bletchley Declaration by more than 20 countries; the Hiroshima Process International Guiding Principles for Advanced AI system issued by the G7 countries in 2023; President Biden's 2023 AI Executive Order in the United States, and the European Union Artificial Intelligence Act,2024.

The African Union Agenda 2063 recognizes Science, Technology, and Innovation (STI) as multi-functional tools and enablers for achieving continental development goals. The Malabo Convention, a legal framework for data protection ratified by the African Union (AU) in 2023, serves as the benchmark for AI policy in Africa. The African Union Development Agency (AUDA-NEPAD) white paper on regulation and responsible adoption of AI in Africa underpins the essence of harnessing of 4th industrial revolution (4IR) technologies to drive innovation across various economic sectors. While the draft 2024-2033 continental AU strategy on AI

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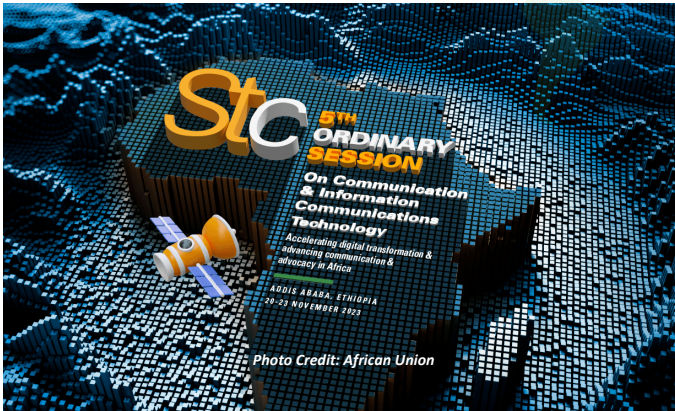
appreciates its potential in driving socio-economic transformation, it is silent on the role of AI and democratic governance. Only the African Union High-Level Panel on Emerging Technologies (APET) has recognized the potential significance of artificial AI in the facilitation of free and fair elections across Africa, yet AI-based technologies have the potential to disrupt democratic governance processes at continental, regional, and country levels. The rapid rise in the use of the technology can push for governance and security reforms, extreme political beliefs, and technologically charged political propaganda on social media platforms. Further, its swift advancement without corresponding regulations and guidelines profoundly impacts democratic processes, national sovereignty and security in the region. Within the Eastern region, particularly in Kenya, the technology has been embraced by the youth, particularly Generation Z, to push for governance reforms of the Kenya Kwanza government. Equally, the technology natives have embraced AI content creation and fast distribution of deep fakes to malign the ruling government, and elected and appointed political representatives during recent anti-Finance Bill 2024 protests.

Policy conversations on AI in the continent are predominantly premised on developing strategies, regulations, and policies linked to socio-economic spheres, with little attention on the political sphere. Only seven African countries including Benin, Egypt, Ghana, Mauritius, Rwanda, Senegal, and Tunisia have developed national AI programs with varying levels of implementation. The Eastern Africa region lags in determining its stance on AI policy development. A policy dilemma exists in the region on whether to regulate or enhance AI literacy to ensure effective utilization amid addressing more pressing development concerns like human and economic security threats. Given the complex nature and nascent state of adoption of AI in the region, countries would face multiple challenges in harnessing AI-based technologies in democratization processes. These include high costs associated with infrastructure installation, lack of adequate capacity and skills on the use and governance of the technology, and legislative deficits in regulating the use and application of AI in democratic governance processes. Compounding the situation are internal and external shocks including high debt levels, cybercrimes, and the geopolitics of AI governance due to advancements in globalization. Therefore, the imperative to address threats posed by AI to the information and communication ecosystems in the political sphere in the region remains crucial.

Key issues

The following issues remain pertinent in advancing and harnessing the potential of AI in democratic governance in Kenya and the region.

AI and government digitization initiatives

AI-driven digitization of government initiatives has the latent to strengthen public service delivery. With over 80% of government services being provided on various digital platforms, deploying different forms of AI applications would make service delivery more efficient and

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responsive to public needs. The government can deploy AI chatbots to handle common citizen queries, reducing wait times and thus improving the provision of services. For example, an AI-driven virtual assistant can help citizens navigate government websites, access information about numerous services, and even complete forms online. Similarly, the technology can improve decision-making processes through the use of data analytics for policy formulation processes and applying machine learning algorithms in monitoring and evaluation of digital government programs while assessing their impact and outcomes on citizens.

However, the increasing digitization of government operations without corresponding controls generates novel vulnerabilities and attack surfaces from a cybersecurity perspective. The misuse of the application of advanced technology could threaten overreliance on traditional technologies in Kenya's critical information infrastructure. Without adequate deterrence initiatives to mitigate potential cyber-attacks by malicious users, the provision of digital services could be in danger. In July 2023, a Distributed Denial of Service (DDoS) attack almost crippled the delivery of online government services. This was the worst cyber-attack in two decades of digital advancement. In 2023, data from the Communications Authority Kenya reported a 943% increase in reported cyber threats in three months. Most of the attacks were a result of cyber

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criminals exploiting faults and susceptibilities in public and private organizations' system procedures, information systems, and internal controls. Other related risks of AI in government digitization include data privacy breaches, ethical concerns due to misuse, lack of accountability, social exclusion and inequalities due to algorithm biases, errors, and systems failures due to excess dependency.

AI and transparency and accountability

Ease of access to quality and large volumes of various data sets from multiple institutions and sectors guarantee and promote transparency and accountability in government. The explosion of AI technology systems offers high prospects for enhancing the effectiveness of governance systems in Kenya through evidence-based decision-making processes. The technology provides arrays of digital applications for real-time government operations reporting and monitoring to expedite decision-making. AI technology-aided applications including Chat GPT, blockchain technology, and machine learning algorithms have the potential to visualize complex data sets from various sectors for easy consumption by the citizens. Further, AI-powered platforms such as AI-driven Chatbots and Virtual Assistants enable real-time analysis of public opinion on various policy issues and also foster active citizen engagement and feedback mechanisms thus leveraging effective governance.

The digital transformation offers prospects for real-time tracking of public development and expenditure activities thus improving public trust. Similarly, automating public processes such as procurement, and records management reduces chances for data manipulation. The digitization process eliminates human error, and aids in detecting and preventing fraud in real-time while at the same time promoting compliance on revenue collection and reporting. The predictive models can

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be used to analyze large data sets to predict trends and efficiently allocate resources, enabling timely intervention and resource distribution on various policy challenges in various sectors. Besides, the adoption of biometric systems in elections management can improve trust in the voters' registration thus improving the chances of free and fair elections, compared to manual elections management.

The effectiveness of AI adoption and deployment in enhancing transparency and accountability is determined by the existence of a structured and tailor-made large-scale data ecosystem. However, in Kenya's context, the open governance data portal is not aggregated to enhance its appro-priateness for use in big data analytics in a contextualized manner. If the data does not accurately reflect the demographic characteristics of the intended population, an AI will frequently fail to serve its intended purpose. Without developing an AI data system that accounts for this diversity while minimizing associated biases breaches the principles of accountability and transparency. Similarly, the authentication of the existing public online data banks in Kenya remains unverified presenting trust deficits in predictive analysis and decision making. Other significant challenges in the utilization of AI technologies for checks and balances include insufficient infrastructure and digital divide, limited platforms

for innovation skills acquisition, and inadequate capacity building.

AI and national security

National security can be strengthened by the application of AI systems in defense surveillance and intelligence, and shifting dynamics of military warfare. While the country's defense stance has heavily relied on traditional security approaches, intensifying the use of AI-powered surveillance systems potent real-time deterrence and preve-ntion of offline and online national security threats. Technology surveillance systems can analyze video footage in real-time, identifying unusual activities and alerting relevant authorities. Similarly, predictive policing tools can examine crime data to detect high-risk areas and deploy offline security resources more effectively. Besides, large-scale deployment of biometric identification and facial recognition can improve border control and reduce identity fraud by verifying identities through facial recognition, fingerprinting, and other biometric methods.

However, lack of sophisticated technology aided security strategies could endanger the country's security due to offensive cybersecurity from defiant technology users. At macro level, the use of AI in surveillance and data collection by external actors can raise significant data privacy issues on the protection of the country's open data governance infrastructure. Similarly, at the micro level, facial recognition technology can track individuals without

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their consent, leading to potential misuse. In addition, the ownership of AI systems by a few large technology corporations including IBM and Microsoft Inc. that dominate the global market impede even distribution and access of these technologies domestically, propagating platform injustices of control and manipulation of public databases by foreign entities. This amplifies the threats to democracy due to unequal and unaccountable use of AI systems, including undermining national sovereignty, manipulating public opinion, and exploiting user-generated data for vested economic and political interests. Similarly, the selective availability of AI products amplifies the digital divide and social inequalities around digital technology and weakens effective, equal, and active democratic participation in politics. Bad users may use this vulnerability to topple and delegitimize the ruling government through deep fakes and social media misinformation.

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AI and information overload on advocacy coalition initiatives

The increasing production of vast amounts of information will have a double-edged effect on advocacy coalition initiatives. While the digital boom offers ease of access to information, it also leads to increased evidence consumption of both harmful and useful content among internet users. The usage will be significantly high among the youthful demographic, particularly Gen-Z who are technology natives. The nascent locus of regulating AI systems and applications in Kenya exposes the demographic to both authentic and synthetic content. AI such as deep fake technologies, psycho- graphic micro-targeting, smart bots, algorithmic real-time advertising, and ChatGPT can interact with social media users, learn their attitudes about social, political, or economic processes, and generate and post results that influence decision-making processes. The consumption of unscrutinised information can positively and negatively psyche and energize various demographics for action to resist or agree on various government policies. This necessitates the urgency to intensify government efforts in screening information for public use.

Misinformation and disinformation welfare will be amplified by the absence of country-specific mechanisms to synchronize large volumes of information flowing from unauthentic sources. Digital applications such as Machine Learning Algorithms, and Natural Language Processing can analyze data based on past behavior and preferences, extracting the most relevant information based on the command applied. This could help to mitigate threats posed by the widespread of synthetic data that could be used by coalition initiatives to delegitimize government operations. Based on the risks posed by the misuse of the technologies on democratic processes, regulating the usage and deployment could avert crawling back the already achieved democratic gains.

Photo Credit: Government Technology

Strengthening the regulation of AI-based technologies could boost assurance that digital content accurately represents its origin and has not been maliciously manipulated.

Conclusion

The development and operationalization of appropriate laws, regulations, and strategies, and selective collaborations on deployment of AI could maximize the opportunities accruing from the technology use globally while mitigating the risks therein. This will accelerate addressing the most pressing development challenges in Kenya including democratic governance and security threats. Given the complex nature and nascent state of the adoption of AI in the country, there equally exist multiple challenges in harnessing AI-based technologies in democratization proce-sses. These include high costs associated with infrastructure installation, lack of adequate capacity and skills on the use and governance of the technology, and legislative deficits in regulating the use and application of the technology. With policy conversations on AI being driven majorly by commercial and geopolitical imperatives, the vulnerabilities in the adoption of AI-based innovations and systems can be exacerbated by internal and external shocks including high debt levels, cybercrimes, and the geopolitics of AI governance due to advancements in globalization.

Recommendations

1. The Ministry of Information, Communications, and The Digital Economy should:

    i) The Ministry of Information, Communications, and The Digital Economy should:

    ii) develop a National AI strategy to provide guidelines and regulations for large-scale deployment of AI;

    iii) develop reliable and aggregated public data ecosystem for AI use;

    iv) collaborate with relevant public and private institutions to accelerate AI-research-led and
    v) knowledge development and transfer strategies;

    vi) intensify capacity building and sectoral retooling on AI use;

    vii) lobby for selective collaboration public-private in AI infrastructure investment;

    viii) scale up funding for AI innovations and incubation centers;

    ix) develop reliable and aggregated public data ecosystem for AI adoption and deployment;

    x) lobby Parliament to legislate appropriate AI laws based on Kenya's and the region's needs;

    xi) retool skills for enhancement of the country's cyber threat monitoring capabilities;

    xii) establish AI multi-sectoral board to provide mechanisms for input harvesting from African innovators, policymakers, and academics in AI conversations to ensure that research solutions are aligned with African needs and priorities;

    xiii) lobby funding for implement AI and innovation and Incubation projects;

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