Government-Private Sector Collaboration in Development of the AI Policy and Regulatory Environment

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1 Background

Although many countries have rapidly adopted the use of artificial intelligence (AI) and established national-level entities to develop the appropriate policy and regulatory environments for synergetic approaches across the public and private sectors, Uganda and many other developing countries remain several steps behind. This article aims to emphasise the urgent need for swift action, highlight the available opportunities and communicate the willingness of individuals in the private sector and some government agencies to share their knowledge and expertise with the Ugandan government (through the Ministry of ICT and National Guidance), in order to accelerate the development of an appropriate policy and regulatory environment.

2 Introduction

AI has emerged as a transformative force that is reshaping global economies, industries, and societies. For Uganda, AI represents a powerful tool to drive national development and achieve the goals set out in Vision 2040 that include, inter alia, economic modernisation, technological advancement, and improved service delivery. However, AI's disruptive potential also presents challenges, particularly in contexts where policy, regulatory frameworks, and governance systems are still evolving.

In Africa, the discourse around AI is increasingly highlighting the importance of ensuring that AI technologies are used for inclusive, sustainable development, addressing local challenges, and creating equitable opportunities. Uganda, like other African countries, faces the dual challenge of the necessity of developing a robust AI ecosystem that can drive economic growth while also managing the risks posed (by AI). In this context, the role of multi-stakeholder collaboration, particularly involving the private sector, is critical.

This concept paper proposes a private sector-led collaborative initiative as the best approach for Uganda to fully realise the benefits of AI. It also explores how Uganda can maximize support from global AI partnerships, including the African Union (AU)[1], the Global Partnership on AI (GPAI)[2], and the U.S. Partnership for Global Inclusivity on AI, to promote responsible AI development and innovation.

3 The Role of AI in Uganda's National Development Agenda

AI has tremendous potential to drive national development in Uganda by increasing productivity, fostering innovation, and improving service delivery in key sectors such as agriculture, healthcare, education, and governance. Farmers and farming can be boosted through predictive analytics that optimise crop yields, enhance food security, and improve supply chain management.[3] In healthcare, AI can enhance diagnostic capabilities improve patient care, and expand access to services in underserved rural areas.[4] In education, AI can be applied to personalise learning systems to match students' learning abilities, and help improve teacher training and curriculum development.[5] Indeed, it is becoming impossible to imagine research without the exploitation of different capabilities of AI.

Within government, use AI cases would include:

a. Systems to automate government services such as renewing national IDs, driving permits and passports.
b. Chatbots to improve citizen engagement by responding to citizen queries in local languages.

[1] https://au.int/sites/default/files/documents/44004-doc-EN-_Continental_AI_Strategy_July_2024.pdf
[2] https://gpai.ai
[3] In Kenya, AI helps farmers to identify crop diseases through smartphone apps like Nuru https://mel.cgiar.org/projects/-15/210/nuru-mobile-phone-app-is-being-scaled-out-to-help-farmers-in-sub-saharan-africa-identify-and-manage-cassava-diseases
[4] In Rwanda, AI-powered drones deliver medical supplies and blood to remote locations https://reachalliance.org/case-study/ziplines-impact-on-health-outcomes-of-the-hardest-to-reach-in-rwanda/
[5] In China, millions of students access high-quality personalised tutoring an AI tutor called Squirrel AI, https://www.weforum.org/stories/2024/07/ai-tutor-china-teaching-gaps/

c. Detection of fraud and promotion transparency and accountability in decision-making.[6] In a recent example, the government through the Office of the Auditor General (OAG) has partnered with the Civil Society and Budget Advocacy Group (CSBAG) and GIZ to explore the use of AI to improve the accessibility and usability of audit reports for stakeholders to improve public transparency, accountability and service delivery.[7]

The successful integration of AI into Uganda's development agenda will require significant investment in human capital and infrastructure. While the government plays a central role in creating an enabling environment (policy and regulation) for exploiting AI while guarding against adverse effects, the private sector's ability to innovate, invest, and develop talent makes it a critical driver in these efforts. Indeed, private sector expertise and experience are crucial resources in developing policy and regulation in this sector.

In addition, leveraging international partnerships earlier cited will enable Uganda to access global expertise, knowledge networks, and collaborative frameworks that can support national AI goals.

4 The Opportunity of the Private Sector

The private sector is uniquely positioned to accelerate Uganda's efforts to harness AI because of its ability to innovate quickly, attract investment, and build the necessary talent. While government-led initiatives necessarily tend to have a strong regulatory orientation and focus on the public interest, bureaucratic inefficiencies, slower decision-making, and limited access to cutting-edge technology will slow the development of AI in Uganda.

A private sector-led collaborative initiative, on the other hand, offers several key advantages, as outlined below.

a. The private sector is typically more agile than government or academic institutions, with access to capital, and market-driven incentives that can drive the development of cutting-edge AI technologies.

[6] In Singapore, government uses AI-powered chatbots to provide citizens with answers to queries across multiple agencies https://www.linkedin.com/pulse/ai-driven-governance-improving-transparency-andre-ripla-pgcert-9wpgc

[7] OAG has already developed and successfully tested a prototype developed in collaboration with CSBAG and GIZ. The partners are working to develop a full operational system

b. This initiative will encourage the private sector to invest in AI infrastructure, such as data centres, cloud computing, and telecommunications networks, which are essential for AI deployment, reducing the financial burden on government.
c. By fostering a competitive AI ecosystem, the private sector can drive faster technological innovation that addresses Uganda's unique development challenges, ensuring immediate national benefits.
d. AI requires specialised skills in data science, machine learning, and AI system design while leveraging AI for development requires expertise from multiple fields and sectors. The private sector, in partnership with the government and the academic institutions, can play a critical role in creating training programmes, educational initiatives, and professional development opportunities that build local AI expertise and enable the creation of multidisciplinary solutions tailored to Uganda's unique development needs. This will help build a local talent pool in AI, creating employment opportunities while fostering entrepreneurship and innovation.
e. Private companies can attract global AI talent, facilitate knowledge sharing and collaborate with international AI companies and organisations through their access to global networks and partnerships.
f. The private sector is well equipped to manage the complex risks associated with the adoption of AI, including issues related to data privacy, algorithmic bias, and cybersecurity. By working with the government, civil society, and international partners, the private sector can experiment and test innovative ideas while helping to establish ethical guidelines and regulatory frameworks to ensure that AI technologies are developed and used responsibly. This will build public trust and ensure that the benefits of AI are widely shared.

Public-private partnerships (PPPs) can combine the agility of the private sector with the government oversight to ensure that AI-driven solutions are aligned with national development priorities. Government can encourage private sector investment through tax breaks, subsidies or grants for AI-related projects. Through such collaborations, AI technologies can be deployed in critical sectors, such as agriculture, healthcare, education and finance and to address specific challenges such as food security, rural healthcare delivery, equitable access to education or tax efficiency. The agility and market-driven approach of the private

sector can complement the efforts of other stakeholders to ensure that AI serves both economic growth and social development.

5 How Uganda can Leverage Global and Regional AI Partnerships

In addition to private sector leadership, Uganda can benefit significantly by aligning its AI strategy with global and regional AI partnerships and initiatives. These partnerships provide Uganda with access to global best practices, technical assistance, and collaborative frameworks that can accelerate the development of a robust AI ecosystem.

5.1 The African Union and AI Initiatives

The African Union (AU), through its Digital Transformation Strategy for Africa (2020–2030), has highlighted the role of AI in driving digital economies and achieving sustainable development across the continent. The AU has also developed a continental AI strategy,[8] with ongoing efforts to create frameworks for responsible AI adoption that are aligned with Africa's specific socio-economic contexts and promote home-grown AI innovation.

For Uganda, there are several benefits to collaborating with the AU's AI initiatives, as highlighted below.

i. The AU's AI initiatives promote regional cooperation in AI development, enabling African countries to share knowledge, resources, and expertise. By participating in these initiatives, Uganda will work with other African countries to develop joint AI solutions to common challenges, such as increasing agricultural productivity or improving access to health care. This collaboration will also help Uganda in capacity building programmes aimed at developing AI skills across the continent.
ii. The AU's emphasis on ethical AI aligns with Uganda's need for inclusive, sustainable AI development. By integrating the AU frameworks into its national AI strategy, Uganda can ensure that its AI policies reflect pan-African priorities, such as protecting data sovereignty, promoting digital inclusion, and safeguarding against the risks of algorithmic bias and inequality.

[8] https://au.int/en/documents/20240809/continental-artificial-intelligence-strategy

iii. The AU encourages African countries to develop home-grown AI innovations that address local challenges. Uganda, with its growing tech ecosystem, is well positioned to become a leader in AI development within East Africa. Working with the AU will provide Uganda with the platforms and networks to showcase its AI innovations to a wider regional audience.

5.2 Global Partnership on AI (GPAI)

The Global Partnership on AI (GPAI) is an international initiative to promote the responsible development and use of AI, based on democratic values and human rights. It brings together governments, civil society, academia, and the private sector to collaborate on AI research, policy, and technical solutions that ensure the benefits of AI are widely shared and ethically governed.[9]

Uganda has an opportunity to greatly benefit from the GPAI.

i. The GPAI provides Uganda with access to cutting-edge AI research, best practices in AI governance, and opportunities to collaborate with leading AI experts from around the world. This can help Uganda develop AI policies that reflect international standards while also addressing local priorities. GPAI's working groups focus on areas such as AI for social good, the future of work, and responsible AI, all of which are highly relevant to Uganda's socio-economic development.
ii. GPAI's focus on ethical AI development aligns with Uganda's need to ensure that AI technologies are used in ways that protect citizens' rights, ensure transparency, and prevent harm. By working with GPAI, Uganda can implement frameworks that protect data privacy, prevent algorithmic bias, and ensure that AI serves the public good.
iii. GPAI promotes international collaboration on AI projects that address global challenges, such as healthcare, education, and climate change. By participating in GPAI, Uganda will engage in collaborative AI initiatives that have both local and global impact, positioning the country as a contributor to global AI innovation.

5.3 US Partnership for Global Inclusivity on AI

The U.S. Department of State has launched a $100 million+ Partnership for Global Inclusivity on AI, which aims to promote inclusive AI development that

[9] https://www.oecd.org/en/about/programmes/global-partnership-on-artificial-intelligence.html

benefits marginalised communities, advances digital equality, and ensures that AI technologies are used responsibly in democratic societies.[10]

The Government of Uganda has significant opportunities to benefit from this Global partnership.

i. The US Partnership for Global Inclusivity on AI emphasises digital inclusion, ensuring that marginalised and underserved communities benefit from AI technologies. By engaging with this partnership, Uganda will gain access to resources and expertise to develop AI-driven solutions that improve digital literacy, expand access to digital tools, and bridge the digital divide between urban and rural populations.
ii. The US partnership focuses on ensuring that AI technologies are designed to be inclusive and benefit women, youth, and marginalised communities. For Uganda, this aligns with national goals of inclusive growth and human capital development. Working with the U.S. partnership will help Uganda design AI policies and initiatives that ensure equitable access to the benefits of AI.
iii. The US partnership supports the development of ethical frameworks for AI that are consistent with democratic values and human rights. Uganda will benefit from this partnership by developing AI governance systems that ensure transparency, accountability, and public trust in AI technologies.

5.4 ITU's AI for Good Global Summit

The International Telecommunications Union's (ITU) AI for Good platform promotes the use of AI to address global challenges, in line with the UN Sustainable Development Goals (SDGs).[11] Organised by ITU in partnership with over 40 UN sister organisations and co-hosted by the Government of Switzerland, the platform provides an opportunity for Uganda to engage in discussions and partnerships focused on AI solutions for key sectors such as agriculture, healthcare, and education. Uganda can also present local challenges to attract support and collaboration from AI innovators around the world.

[10] https://www.state.gov/secretary-antony-j-blinken-at-the-advancing-sustainable-development-through-safe-secure-and-trustworthy-ai-event/
[11] https://aiforgood.itu.int/

5.5 Smart Africa Alliance

The Smart Africa Alliance, a pan-African initiative, is accelerating the continent's sustainable socio-economic transformation by promoting digital policy harmonisation, AI regulatory frameworks, cross-border collaboration, and innovation-driven investment.[12] Its AI for Africa Blueprint (2021) has identified actionable, localised AI opportunities and provided concrete recommendations to address persistent structural and policy bottlenecks that hinder AI adoption across the continent.[13]

Uganda's active participation in the Smart Africa Alliance is a key strategic advantage. Uganda's willingness to collaborate in the realisation of this continental vision not only strengthens its digital diplomacy credentials, but also positions it to attract foreign direct investment (FDI) and development assistance tailored to digital innovation and inclusive growth. The recent establishment of the Africa AI Council marks a pivotal moment. Tasked with driving coordinated action on key AI enablers such as computing infrastructure, open datasets, digital skills, use-case development, and regulatory coherence, the Council offers Uganda a unique opportunity to leapfrog traditional development hurdles.[14]

As the pace of AI development accelerates globally, delayed action poses a growing risk of exclusion from emerging data economies and the erosion of digital sovereignty. The window of opportunity is narrowing, and Uganda needs to position itself well to be at the forefront. With the right policies, agile governance mechanisms and strategic investments, Uganda can unlock transformative AI-driven development while protecting the public interest and national resilience.

6 Managing Risks and Challenges

While AI offers tremendous opportunities, it also poses risks that need to be carefully managed, including issues related to data privacy, job displacement, algorithmic bias, and the concentration of AI power. A private sector-led collaborative initiative, combined with support from international frameworks can effectively address these risks through the following mechanisms:

[12] https://smartafrica.org/who-we-are/
[13] https://smartafrica.org/knowledge/artificial-intelligence-for-africa/
[14] https://smartafrica.org/smart-africa-steering-committee-convenes-in-kigali-and-endorses-the-establishment-of-the-africa-artificial-intelligence-council/

i. Working with global partnerships, Uganda will develop robust frameworks for ethical AI governance that ensure accountability, transparency, and fairness in the use of AI. This will include creating policies that protect personal data, collect large, diverse and accurate datasets and algorithms that can be used to train non-discriminatory algorithms, and regulate the use of AI in critical sectors.
ii. International partnerships will help Uganda build an AI ecosystem that ensures the equitable distribution of AI benefits. Programmes that promote digital literacy and expand access to AI technologies for underserved communities will be critical to ensuring that AI benefits all Ugandans, not just the urban elite.
iii. AI will change the employment landscape, potentially displacing some workers while creating new opportunities in AI-related fields. Global partnerships can support Uganda in developing programmes to reskill or upskill workers for the AI economy, ensuring that the transition to AI-enabled industries is both equitable and sustainable.
iv. The private sector and international partners will invest in digital infrastructure such as data centres and high-speed broadband, to reduce infrastructure barriers to AI adoption, and invest in the development of local talent and institutions to build a strong AI ecosystem.

7 Conclusion

A private sector-led collaborative initiative, working closely with the Government of Uganda, will effectively drive these efforts forward and provide a powerful framework for Uganda to harness AI for national benefit. By fostering public-private partnerships, promoting responsible AI development, and leveraging international expertise to align all initiatives with the country's broader socio-economic goals, it will help Uganda achieve its Vision 2040 development goals.