

As artificial intelligence reshapes economies worldwide, Africa stands at a defining crossroads. This article examines how Uganda and its continental peers are navigating the opportunities and challenges of AI adoption in pursuit of accelerated development and long-term economic prosperity, writes **Titus Kakembo**

# AFRICA'S PUSH FOR HOME-GROWN AI IDEAS

The global race for artificial intelligence (AI) wealth has reached Africa — and Uganda is determined not to be left behind.

During the maiden AI Everything Kenya x GITEX Kenya summit held on May 20-21, delegates from Africa, Europe, the Middle East and Asia gathered to debate how AI is reshaping economies, industries and labour markets.

Robots welcomed guests at exhibition booths. Smart farming systems demonstrated how AI can detect crop diseases before visible symptoms appear. AI-powered medical technologies promised faster diagnosis of illnesses, while fintech firms showcased software capable of detecting fraud within seconds and assessing the creditworthiness of people previously excluded from formal banking systems.

One message echoed throughout the summit: AI is no longer a futuristic fantasy. It is already transforming global commerce and redefining economic power. Technology research firm Gartner estimates global AI spending will rise to nearly \$2.59 trillion this year, up from approximately \$1.76 trillion in 2025. Much of that investment is flowing into robotics, cloud computing, cybersecurity, healthcare systems, logistics and financial technology.

For Uganda, the AI debate is no longer confined to university lecture rooms and technology conferences. It is increasingly becoming central to the country's ambition of growing the economy to \$500b by 2040.

Government officials and economists argue that Uganda cannot industrialise fast enough, create sufficient jobs for its youthful population or compete



Education experts say the school curriculum must evolve rapidly to prepare young people for an AI-driven labour market

globally without embracing advanced technologies such as artificial intelligence.

Former Minister of Science, Technology and Innovation, Monica Musenero, who addressed delegates in Nairobi, described AI as one of Africa's biggest economic accelerators.

"Artificial intelligence is no longer optional for developing economies like Uganda. Countries that embrace AI early will create wealth faster, improve productivity and compete globally, while those that delay risk being left behind," Musenero said.

She argued that Uganda's journey towards a \$500b economy will depend heavily on value addition, industrial efficiency and innovation-driven exports — areas where AI can dramatically improve productivity.

"In agriculture, AI-powered systems are helping farmers predict weather patterns, monitor soil health, detect crop diseases early and connect directly to markets. With agriculture employing the majority of Ugandans, smarter farming alone



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will significantly increase national output and household incomes," she said.

Agriculture remains Uganda's economic backbone, employing more than 70% of the population. Yet the sector continues to suffer from low productivity, post-harvest losses, unpredictable weather and limited access to market information.

Musenero challenged African governments to stop treating AI purely as a technological issue and instead view it as an economic strategy involving ministries responsible for finance, trade and banking.

Her remarks reflected a growing realisation across Africa that artificial intelligence could become as transformative as mobile telephony was two decades ago. In his keynote address, Kenya's technology envoy, Philip Thigo, cautioned that millions of routine jobs globally could disappear as automation becomes more sophisticated. Factories, supermarkets, banks and even media houses are already experimenting with AI systems capable of replacing repetitive human tasks.

# POOR INTERNET, POWER OUTAGES THREATEN UGANDA'S AI AMBITIONS

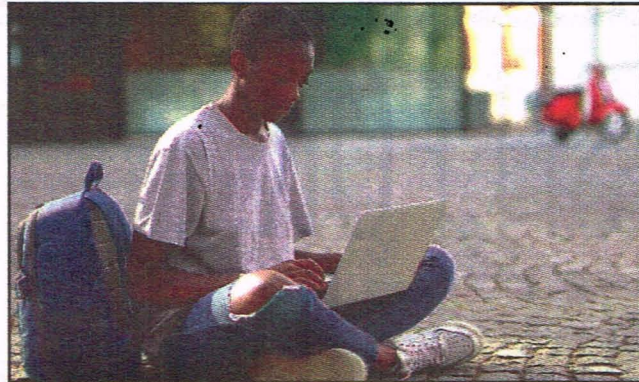
Still, Thigo argued that many African policymakers see AI less as a threat and more as an opportunity to leapfrog development barriers that have slowed the continent for decades.

"Africa has the world's youngest population. Through AI, thousands of jobs can be created while modernising industries and improving public service delivery," he said.

Thigo believes AI could unlock entirely new sectors in software engineering, robotics, fintech, cybersecurity, digital services and scientific research. However, success, he warned, will require massive investment in electricity, internet connectivity, digital literacy and higher education.

That warning resonates strongly in Uganda, where unreliable internet access, high data costs and unstable electricity remain major obstacles to digital transformation. Rural Uganda still lacks the infrastructure needed to participate fully in the digital economy.

Education experts say the school curriculum must evolve rapidly to prepare young people for an AI-driven labour market. Universities and vocational institutions are under pressure to produce graduates skilled in coding, robotics, data science, machine learning and



**Unreliable internet access, high data costs and unstable electricity remain major obstacles to digital transformation**

cybersecurity.

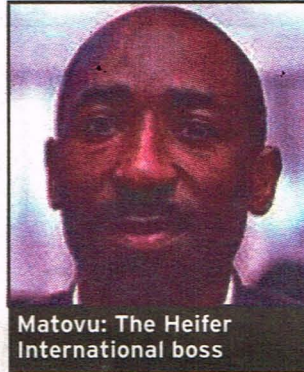
Ugandan software developers attending the summit showcased innovations targeting agriculture, mobile banking, healthcare diagnostics and public transport management. Investors expressed growing interest in East Africa's start-up ecosystem, particularly in countries with youthful populations and expanding internet penetration.

For Uganda, the AI revolution arrives at a critical moment.

## BETWEEN THE LINES

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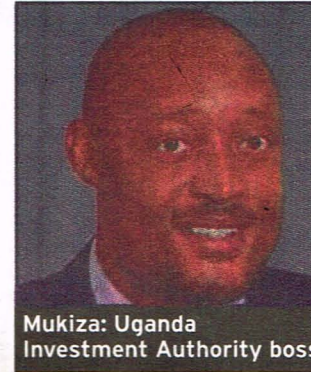


**Matovu: The Heifer International boss**

the labour market annually. Traditional sectors alone may struggle to generate enough employment opportunities.

William Matovu, the country director of Heifer International Uganda, believes AI could transform farming by helping farmers determine the best planting seasons, identify counterfeit farm inputs and optimise irrigation.

"Smartphone applications powered by AI are already helping farmers diagnose diseases in coffee, bananas and maize simply by photographing



**Mukiza: Uganda Investment Authority boss**

infected crops," Matovu said.

For a country seeking export growth, such innovations could become game-changers. Uganda's coffee industry already earns the country more than \$1b annually. Analysts believe AI-assisted farming and processing could further increase export volumes while improving quality standards demanded by international buyers.

Beyond agriculture, Uganda's industrialisation agenda is also becoming increasingly tied to technology adoption.

Robert Mukiza, the director general at the Uganda Investment Authority, said several factories operating within Uganda's industrial parks are already embracing automation and predictive technologies to reduce wastage, lower operational costs and improve production quality.

Manufacturers are increasingly using AI systems to monitor machinery, predict equipment failure and streamline supply chains. Economists argue that such efficiencies could help Uganda compete more effectively with imports while expanding exports into regional and international markets.

However, speakers at the Nairobi summit said Africa risks becoming merely a consumer of foreign AI products unless governments invest heavily in digital infrastructure, innovation hubs, local data centres and technology education.

Artificial intelligence therefore presents both promise and pressure.

If managed strategically, it could help Uganda modernise agriculture, strengthen manufacturing, improve healthcare, expand exports and accelerate economic growth. However, if ignored or poorly managed, it could widen inequality, eliminate routine jobs and deepen dependence on foreign technology giants.