Al Development and Deployment Strategies for Nigeria

Need for AI-enabled Data Centres Building Data Centres to run AI workloads Advice to Africa tech public sector

Isn't the present wave of digital wonders worldwide so amazing especially with the AI phenomenon? Most of us didn't see this massive tech disruption coming, did we? Imagine the variety of AI start-ups and AI apps springing up daily. ChatGPT once dominated the AI market but now Deepseek are contending fiercely with an offering which would create room for expanded access to AI. The tech giants and hyper-scalers too are not playing – they are going all out to embrace and offer AI platforms in what some are now terming the 5th Industrial Revolution (5IR).

A view of countries leading in AI research and technology in 2025 makes one marvel at the buoyancy in capacity and resources awarded to AI and the numerous announcements of Data Centre (DC) developments due to the projected increase in digital workloads.

USA - The USA is undoubtedly the undisputed land of digital technologies followed by China and India. In Europe, the UK is leading with an Action Plan under the new Labour government, and we can see deals for massive AI DCs being approved. The same applies to Germany, France, and Italy and so on.

Africa is catching up as much as it could in the race to AI stardom as investments permit and I dare say that Africa cannot afford to be lackadaisical at this period but kudos to the present movers and shakers of the various African digital transformation projects ongoing. AI development and deployment in Africa are evolving rapidly, with several countries and regional bodies implementing strategies to harness the technology for socio-economic growth, here is a sneak peek:

National AI Strategies: Countries like Egypt, Rwanda, Mauritius, Ghana, Nigeria, and Kenya have formulated comprehensive AI strategies. These strategies focus on integrating AI into various sectors, including government, healthcare, education, and finance.

Local Capacity Building: There is a strong emphasis on building local AI capabilities. This includes developing digital, data, and computing infrastructure, as well as enhancing skills through education and research.

Ethical AI Governance: Ethical guidelines are being established to ensure AI technologies are developed and deployed responsibly. This includes addressing issues like data privacy, bias, and the digital gender divide.

Sector-Specific Applications: All is being used in various sectors such as corporate services, health, education, farming, and finance. For example, All tools are being leveraged for e-learning, data analytics, chatbots, decision support, and diagnostics.

Regional Collaboration: The African Union and other regional bodies are working to create a coordinated approach to Al governance, aiming to protect fundamental rights and promote inclusive development.

FOCUS ON NIGERIA

Nigeria is actively developing and deploying AI strategies to foster innovation and socio-economic growth. Here are some key aspects of Nigeria's AI strategy:

National AI Strategy: Nigeria's National AI Strategy (NAIS) aims to position the country as a global leader in AI through responsible, ethical, and inclusive innovation. The strategy focuses on sustainable development and collaborative efforts.

Capacity Building: The National Information Technology Development Agency (NITDA) emphasizes building Al literacy across various sectors. This includes up-skilling the workforce, training young people in Al-related skills,

and incorporating AI into formal education curricula. This is a welcome development as attention must be paid to the brains that would administer and propel AI adoption.

Partnerships with organizations like Google, Microsoft, and JICA are facilitating AI training for students, entrepreneurs, and professionals. Students are best placed for data generation and contributing to Gen AI as the building blocks for topical national challenges.

As of Feb 2025, on record, there are over 70 Al start-ups in Nigeria now, but I'll only list the top 10 here supported by Google.

- 1. **BetaLife Health**: Utilizes AI to predict demand and match blood types, improving Africa's blood supply network
- 2. **Bunce**: An Al-powered platform that personalizes customer engagement for businesses, centralizing client interactions.
- 3. **CDIAL AI**: Offers seamless text-to-speech and speech-to-text solutions in 13 languages across underserved regions.
- 4. Farmspeak: Supports livestock farmers through Al-based disease detection and climate control solutions.
- 5. **Lendsqr**: Uses AI to streamline lending operations, benefiting lenders and borrowers on a global scale.
- 6. **ProDevs**: Connects international companies with pre-qualified African tech talent, leveraging AI for job matching.
- 7. **Rana Energy**: Provides sustainable power solutions through Al-powered energy management, targeting underserved communities.
- 8. **SaaSPro Health**: Focuses on healthcare documentation, using AI to offer tailored tools for Nigerian doctors.
- Towntalk: Delivers Al-driven security insights tailored to African communities, enabling better-informed decisions.
- 10. Trade Lenda: Simplifies credit analysis for MSMEs with AI, facilitating access to financing.

Regulatory Frameworks: Nigeria is developing regulatory frameworks that prioritize transparency, data privacy, and cyber-security in AI development. These frameworks aim to ensure the responsible and ethical use of AI technologies.

Sector-Specific Applications: Al is being integrated into sectors such as healthcare, agriculture, finance, and education. For example, Al tools are used for diagnostics in healthcare, precision farming in agriculture, and financial analytics.

International Collaboration: Nigeria collaborates with international organizations to enhance its AI capabilities. These collaborations help create training platforms and boot camps, promoting AI literacy and practical applications.

The Al adoption strategy may utilise ready data to create value rather than building new LLMs, at least being tactful in maximising off-the-shelf Al tools on hyperscaler platforms available to develop low-key solutions. By the time Al knowledge gets pervasive in emerging economies, strategic innovators in Africa may launch groundbreaking LLMs; going by the previous dominance of GPT (ChatGPT) and the sudden rise of Deepseek – let's watch this space.

POWER DEMAND IN NIGERIA

Nigeria has been grappling with power insufficiency and weakened infrastructure over decades and now is the time to be intentional for mass infrastructural overhauls and digital technology programmes. How are we not going to be intentional without bold steps to fix our power supply shortages and the burgeoning infrastructural deficit? If we are to make any headway in the global digital economy and with AI glaring at us, then we cannot afford to be digitally colonised.

I expect that extended AI implementations will attract rapid DC developments, and so will the souring power demand that must run and maintain the high computing and low-latency connectivity.

Al devices such as Al accelerators are power-hungry. With the recent Electricity Bill 2023, one can only hope for sufficient investments in alternate power generation —such as renewables and other off-grid methods.

We face an immense but surmountable challenge where power demand, basic infrastructure and suitable human capital are deal breakers for a thriving economy and human welfare. Layers of integrated infrastructural development will pave the way for seamless digital infrastructure developments.

As there exists a remarkable deficit in infrastructure though, the stark reality is that we need more smart minds to join the digital army that will emancipate the continent's digital economy. The population is enormous with a large percentage of young tech-savvy youths, and this cannot be overlooked.

Al proliferation in Africa requires concerted efforts. The excellence of any African Al proliferation is as good as the raw data obtainable and learnt by Gen Al platforms. For Nigeria, Africa's largest economy, it stands to reason that there is a long way to go and steep hurdles to climb for investments and human capital. The Federal Ministry of Culture, Innovation and Digital Economy (FMCIDE) under the leadership of Honourable Bosun Tijani, signed a partnership deal with Google to support local Al start-ups and it is hoped that fruitful products will emerge for the greater good of the country. A wealth of Al tools also exists in Microsoft, IBM and AWS that users and start-ups can tap into.

Charity begins at home, and the public sector must strive for mass digitalisation to pave the way for Al adoption. Public services especially collect enormous personal data, followed by data derivable in the private sector for health services, banking, business, and marketing.

HUMAN CAPITAL

The public sector should take advantage of the AI opportunities and the need for renewed educational policies to activate skills development in various advanced technologies, getting our youngsters and university students involved in AI to participate in the AI boom for sources of data, building and testing simple AI platforms. Aside from the 3MTT program under the FMCIDE, collaborations with the Federal Ministry of Education to adjust STEM curriculum in primary, secondary and tertiary learning institutions is also key to an effective approach to the learning and skills development required for the digital infrastructure domain.

HARNESSING AI

Link to Patrick Green's note on harnessing Al.

Harnessing AI - Strategies for Effective Change Management