POLICY BRIEF

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Artificial Intelligence, Public Policy and Economic Transformation in Nigeria

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Executive Summary

Artificial Intelligence (AI) is rapidly transforming global economies by enhancing productivity, improving decision-making, and enabling new forms of digital innovation. Nigeria, Africa's most populous country is increasingly embracing AI as part of its broader digital transformation agenda. A report by the Ministry of Communication, Innovation and Digital Economy, shows that Nigeria's digital economy contributes about 19% of national GDP, while the sector's value is projected to reach $18.3 billion by 2026 as artificial intelligence and other emerging technologies drive economic growth. AI adoption is gaining momentum across Nigeria's fintech, education, healthcare, and public service sectors. A survey by Google indicate that about 93% of Nigerian companies have adopted some form of AI technology, while approximately 80% of users leverage AI tools for entrepreneurship, skills development, and career opportunities.

Despite these promising developments, Nigeria faces critical challenges in harnessing AI for national development. These include limited digital infrastructure, regulatory gaps, data governance concerns, and insufficient technical capacity within public institutions. Without effective governance frameworks, AI adoption could exacerbate inequalities, create labour disruptions, and raise ethical concerns related to privacy and data protection.

To maximise the benefits of AI while mitigating risks, coordinated policy action is required. The National Assembly through its relevant Committees and through its oversight function may wish to consider the following recommendations:

- ✓ The need to ensure proper implementation of the National Artificial Intelligence Strategy 2024. Legislation should properly define standards for AI ethics, transparency, and accountability.
- ✓ Strengthening data protection regulations and cybersecurity frameworks is necessary to safeguard citizens' information.

1. Introduction

The global economy is entering a new phase of technological transformation driven by artificial intelligence, automation, and digital platforms. AI technologies enable machines to analyse large datasets, recognise patterns, automate tasks, and support complex decision-making processes. These capabilities are reshaping industries such as finance, healthcare, agriculture, manufacturing, and public administration. For developing countries like Nigeria, AI presents both opportunities and challenges. On the one hand, AI can help overcome structural barriers to development by improving service delivery, boosting productivity, and fostering innovation. On the other hand, inadequate policy frameworks and institutional capacity may limit the ability of governments to regulate and effectively deploy these technologies.

Nigeria has taken steps to position itself within the global digital economy through initiatives such as the National Digital Economy Policy and Strategy[1], the Nigeria Startup Act[2], and emerging National AI strategies[3]. However, the integration of AI into governance and economic planning remains at an early stage. Understanding the role of AI in Nigeria's development trajectory is essential for policymakers seeking to harness technological innovation while safeguarding public interests.

Consequently, this brief examines the intersection of AI, public policy, and economic transformation in Nigeria. It analyses current trends, identifies governance gaps, and outlines policy actions required for Nigeria to leverage AI as a catalyst for sustainable economic growth.

2. Content Analysis

Nigeria's economy has historically been dominated by oil exports, but in recent years the digital and technology sectors have become increasingly important drivers of growth. Digitalisation has expanded rapidly due to increasing internet penetration, a youthful population, and the growth of mobile technologies.

Internet access has expanded dramatically, with over 150 million internet users representing roughly 70% of the population[4], reflecting the country's expanding digital ecosystem. The rise of fintech and digital entrepreneurship has positioned Nigeria as one of Africa's leading innovation hubs[5]. Nigerian technology startups have attracted significant global investment and produced several billion-dollar companies[6].

AI is emerging as a critical component of this digital transformation. Nigerian businesses and individuals increasingly use AI for tasks ranging from financial fraud detection and data analysis to educational tools and mental health support systems. Globally, AI is projected to contribute trillions of dollars to economic growth over the coming decade. For Nigeria, the integration of AI into economic planning and governance could significantly improve productivity and create new economic opportunities.

3. AI Adoption and Innovation in Nigeria

AI adoption is accelerating across Nigeria's technology ecosystem. Studies indicate that Nigeria has one of the fastest-growing developer communities globally, with the number of software developers growing by 45.6% between 2022 and 2023[7]. Approximately 9.3% of Nigeria's working-age population actively uses AI tools,

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[1] Nigerian Communications Commission (NCC). (2020). The National Digital Economy Policy and Strategy. NCC. https://www.ncc.gov.ng/media-center/public-notices/national-digital-economy-policy-and-strategy

[2] Startup Nigeria. (2022).Unlocking Nigeria's Innovation Potential with the. *Nigeria Startup Act*. https://startup.gov.ng/

[3]National Artificial Intelligence strategies. (2024). *NAIS*. https://ncair.nitda.gov.ng/wp-content/uploads/2024/08/National-AI-Strategy_01082024-copy.pdf

[4] Rome Business School. (2025). Nigeria's Digital Transformation: Rome Business School Nigeria Highlights Digitalization and AI Progress. RBS. https://romebusinessschool.ng/nigerias-digital-transformation-rome-business-school-nigeria-highlights-digitalization-and-ai-progress/

[5] Aliyu, A. (2026). How Nigeria raised largest fintech capital in Africa. Daily Trust NG. https://dailytrust.com/how-nigeria-raised-largest-fintech-capital-in-africa/

[6] Balogun, F. (2025). Nigerian tech firms' multi-million dollar haul in 2025 fuels innovation across sectors. The Guardian NG. https://businessday.ng/technology/article/nigerian-tech-firms-multi-million-dollar-haul-in-2025-fuels-innovation-across-sectors/

[7] Guardian NG. (5th October 2025). 10 software engineers redefining innovation globally. Guardian NG. https://guardian.ng/news/10-software-engineers-redefining-innovation-globally/

reflecting growing engagement with the technology.

Nigeria leads global AI chatbot adoption with about 88% user engagement, significantly above the global average[8]. These trends demonstrate the country's strong potential to become a major player in Africa's AI ecosystem.

Digital technologies, including AI, are becoming important drivers of economic growth. Google research shows that digital investments generate high economic returns; every $1 invested in digital technologies can generate more than $8 in economic value[9].

Technology companies are already contributing significantly to Nigeria's economy. For example, Google's digital services alone generated approximately $1.8 billion in economic activity in Nigeria in 2023[10]. These developments highlight the potential for AI-driven innovation to expand Nigeria's digital economy and create new employment opportunities.

4. AI in Key Sectors

i. Finance and Banking: AI systems are increasingly used in Nigerian banks to detect fraud, analyse financial transactions, and improve customer service. However, adoption remains uneven due to infrastructure costs and limited technical expertise.

ii. Education: Artificial intelligence is transforming education through adaptive learning platforms, digital tutoring systems, and research tools. Nigeria's EdTech sector is projected to reach approximately $400 million, reflecting growing demand for digital learning solutions[11].

iii. Healthcare: AI-powered chatbots and digital platforms are emerging as tools to address healthcare gaps. For example, AI-based mental health support systems provide accessible counselling services in a country with limited mental health professionals.

iv. Agriculture: AI-driven agricultural technologies, including precision farming and data analytics, can improve crop yields and reduce post-harvest losses. These technologies could enhance food security in a country where agriculture remains a major economic sector.

5. Governance and Policy Gaps

Despite growing adoption, Nigeria faces several governance challenges in regulating and deploying AI effectively.

i. Weak Regulatory Framework: Nigeria lacks a comprehensive AI governance framework addressing issues such as algorithmic accountability, ethical standards, and regulatory oversight.

ii. Data Protection and Privacy: AI systems rely heavily on large datasets, raising concerns about data security, privacy, and misuse of personal information.

iii. Digital Infrastructure Deficits: Reliable broadband connectivity,

[8] Ajanaku, L. (2026). Nigeria's 88% AI adoption ahead of global average of 62 per cent. The Nation NG. https://thenationonlineng.net/nigerias-88-ai-adoption-ahead-of-global-average-of-62-per-cent/

[9] Adedapo, A. (2024). Nigeria's Digital Economy Has 800% Return on Investment—Google. Google. https://businesspost.ng/economy/nigerias-digital-economy-has-800-return-on-investment-google/

[10] Ikhagu A. (2025). Google services boost Nigeria's economy by $1.8 billion in 2023. The Guardian NG. https://guardian.ng/business-services/business/google-services-boost-nigerias-economy-by-1-8-billion-in-2023/

[11] EduTech. (June 20 2025). Nigeria EdTech Market Forecast 2025–2030: Why the $400M Milestone Matters. EduTech. https://edutech.global/nigeria-edtech-market-forecast/

cloud infrastructure, and data centres remain limited in many parts of the country.

iv. Skills and Talent Gap: Although Nigeria has a rapidly growing developer community, there remains a shortage of specialised AI researchers and engineers.

v. Institutional Capacity: Many government agencies lack the technical expertise required to adopt AI-driven systems effectively.

6. Socioeconomic Implications

AI could significantly reshape Nigeria's labour market and socioeconomic landscape.

i. Employment Transformation: Automation may replace certain routine jobs while creating new opportunities in digital industries.

ii. Youth Empowerment: Nigeria's youthful population provides a strong foundation for AI innovation if supported with appropriate education and training.

iii. Economic Diversification: AI can support Nigeria's efforts to diversify its economy away from oil dependence.

iv. Inequality Risks: Without inclusive policies, AI adoption could widen economic disparities between digitally connected urban centres and underserved rural communities.

7. Key Areas for Legislative and Executive Intervention

To maximise the benefits of AI while mitigating risks, coordinated policy action is required. The National Assembly through its relevant Committees and through its oversight function may wish to consider the following recommendations:

i. The need to ensure proper implementation of the National Artificial Intelligence Strategy 2024. Legislation should properly define standards for AI ethics, transparency, and accountability.

ii. Strengthening data protection regulations and cybersecurity frameworks is necessary to safeguard citizens' information.

iii. Expand digital infrastructure investments, particularly broadband and cloud computing.

iv. Promote public-private partnerships to accelerate AI research and innovation.

v. Develop workforce reskilling programs to prepare citizens for AI-driven labour market changes.

7. Conclusion

Artificial Intelligence represents a transformative opportunity for Nigeria's economic development and governance reform. The country's growing digital ecosystem, entrepreneurial culture, and youthful population provide a strong foundation for AI-driven innovation.

However, realising the full benefits of AI requires deliberate policy actions, robust regulatory frameworks, and strategic investments in infrastructure and human capital. By adopting forward-looking public policies and strengthening institutional capacity, Nigeria can harness artificial intelligence to accelerate economic transformation, enhance public service delivery, and improve the wellbeing of its citizens.

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