

Harnessing Digital Innovation and Emerging Technologies for Inclusive Growth and Economic Renaissance

Presented at the 2026 Nigeria Computer Society Conference

DR VINCENT O. OLATUNJI, CPPPS, CDPO, FIIM
NATIONAL COMMISSIONER/CEO,
NIGERIA DATA PROTECTION COMMISSION (NDPC)

28th July 2026

Digital Innovation: The Engine of Inclusive Growth and Economic Renaissance

Digital innovation is the application of digital technologies to create new value, improve processes, address societal and economic challenges, and drive sustainable economic growth.

Key Drivers of Digital Innovation

Artificial Intelligence

Global market value at **\$391 billion**, with projected GDP impact of **US\$15.7 trillion** by 2030. To create **170 million new jobs** by 2030

Next-Generation Connectivity (5G)

Connects over **75%** of the global population to fast, accessible online infrastructure.

To add more than **\$1.3 trillion** to global GDP by 2030

Internet of Things

Connects **21+ billion** devices worldwide.

Global IoT market value is projected to reach **\$2 trillion** by 2030, doubling from its 2024 footprint.

Cloud Computing

Central backbone hosting over **70%** of ICT pipelines

Currently generates between **\$720B and \$770B** in annual market revenue.

Block Chain

Reduces costs, mitigating fraud by up to **30%**.

Projected to inject a **\$1.7T to \$2.1T** cumulative lift into global GDP by 2030 through enhanced asset tracking and transparency.

Impacted Sectors

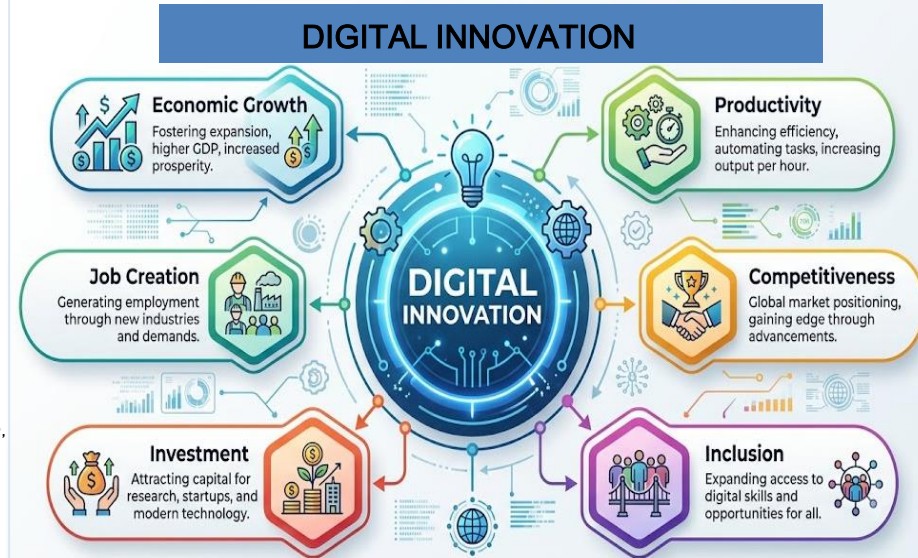
Finance, Healthcare, Tech, Retail

Health, Telecom, Automotive, Smart Cities

Manufacturing, Logistics, Energy, Agriculture

Enterprise Tech, E-commerce, Government

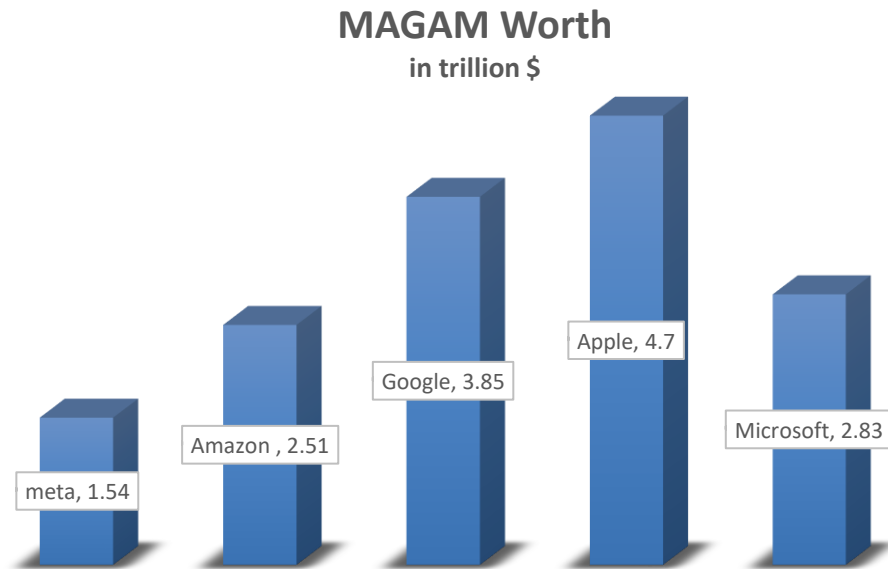
Finance, Logistics, Real Estate, Legal



Emerging Technologies as Drivers of Global Economic Growth

Emerging technologies have become key drivers of innovation, productivity, and economic value creation.

Leading global companies are leveraging these technologies to transform industries, scale globally, and create trillions of dollars in value.



Combined Market Value = \$ 15.4 trillion

55% of the global digital economy (\$28 trillion)

12.5% of global GDP (\$123.6 trillion)

Digital Innovation as a Catalyst for Sustainable Development

Digital innovation is accelerating progress toward the Sustainable Development Goals (SDGs).

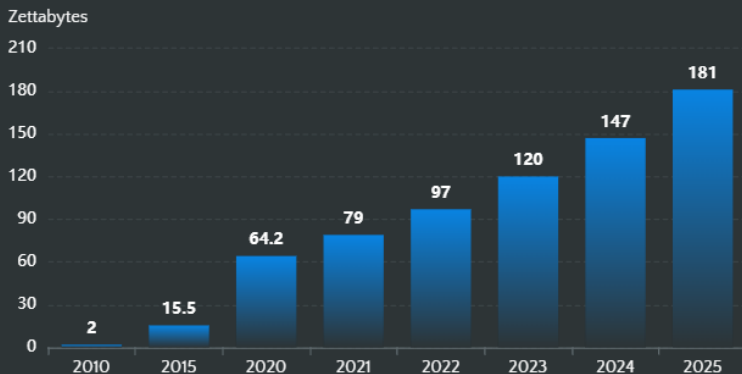
At least 70% of the SDG targets can be advanced through digital technologies, demonstrating the transformative role of AI, IoT, and mobile innovation in addressing some of the world's most pressing development challenges..



Data as Critical Infrastructure

The world now prints value in zettabytes

Global Data Generation (Zettabytes)



90 times growth in 15 years

221 Zettabytes

Projected data generation globally

5Vs of data

Volume, Velocity, Variety,
Value, Veracity

The data value chain

GENERATE

COLLECT

GOVERN

MONETISE

Governance is the hinge of the chain: it converts raw volume into economic value that people will actually share.

What data as infrastructure demands

- **Standards** — quality, interoperability, metadata
- **Rights** — consent, purpose limitation, redress
- **Security** — protection across the lifecycle
- **Exchange** — lawful flows across borders and sectors



Key takeaway: Data is the fundamental core infrastructure that powers modern digital innovation. Whoever governs data well compounds this asset; whoever does not, squanders it

Challenges to Overcome

Despite the immense potential of digital innovation and emerging technologies, several critical challenges must be addressed to unlock their full economic and societal benefits.



Cybersecurity Threats

A cyberattack occurs **every 39 seconds** globally.

1 in 3 data breaches now involves IoT devices.

Global cybercrime damages are projected to reach **\$10.5 trillion annually** by 2030.

Privacy & Ethical Concerns

Massive data collection, sharing and processing increases privacy risks.

Over **50% of reported data breaches** involve personal information.

Algorithmic bias, discrimination and loss of autonomy from use of emerging technologies.

Trust Deficit

Adoption of digital services & innovation reduces if citizens fear data misuse.

Only 40% of consumers trust organizations to use their data ethically.

Two-thirds of consumers believe companies lack transparency in data use.

Regulatory Complexity

Emerging technologies are evolving faster than regulatory frameworks.

Organizations operating across jurisdictions must navigate differing requirements.

Organisations need practical support to meet data protection obligations affordably.

Skills Gap

39% of today's skills will be outdated by 2030. In Nigeria, a projected **41%** of core skills are expected to change over the next few years

Cybersecurity talent shortages added **\$1.76M** to average breach costs in 2024

Approximately **490,000** data privacy skills gap in Nigeria.

How Nigeria is Enabling Innovation

Nigeria has progressively established policy, legal, and institutional frameworks to accelerate digital transformation, foster innovation, attract investment, and build trust in the digital economy.

01

Policies & Strategies

- National ICT Policy (2001)
 - Nigeria e-Government Masterplan (2019)
- Nigerian Broadband Plan (2020 – 2025)
- National Digital Economy Policy and Strategy (2020–2030)
 - National AI Strategy
- Strategic Blueprint for the Federal Ministry of Communications, Innovation & Digital Economy

Pillars

Knowledge, Policy, Infrastructure, Innovation, Entrepreneurship & Capital, Trade

02

Regulatory Frameworks

- NITDA ACT, 2007
- Nigeria Startup Act 2022
- Nigeria Data Protection Act, 2023
 - National Identity Management Commission Act 2026
- National Digital Economy and e-Governance Bill

03

Infrastructure

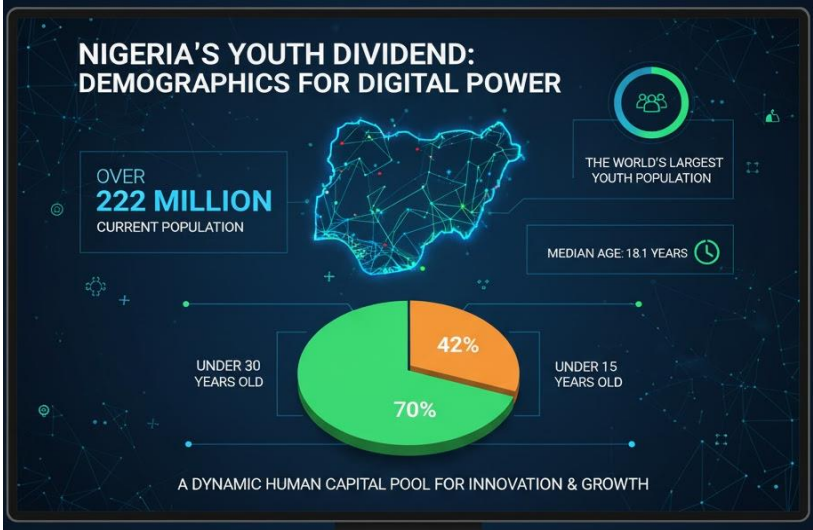
- Project Bridge
- National Information and Communication Technology Infrastructure Backbone (NICTIB)
 - NigComSat-IR
 - 28 Data Centers
- 230+ Innovation Hubs,
- Various private sector-led initiatives due to the enabling environment created by government.

04

Human Capital Development

- 3MTT
- National Data Protection Certification Programme
- Digital Literacy Programs by various MDAs

Outcomes



~220m population

Africa's largest population, with a median age of about 18

140m+

citizens already online, generating data trails daily

70%

of Nigerians are under 30, digital natives by default

1.15m TB

monthly national data consumption and increasing

Nigeria's investments in digital policies, infrastructure, and human capital development have delivered tangible outcomes across the economy.

Growing Digital Economy

Worth **N18.3 trillion**
Contributes **~18%** to GDP

Thriving Innovation Ecosystem

5 Unicorns
Estimated value of over **\$20b**

Trust & Digital Governance

Trusted digital ecosystem supported by the NDP Act, 2023

#1 in Africa

38th globally on Global Index on Responsible AI; Recognised as Bright Spot for AI Literacy

Top 5 AI Economy

One of Africa's top countries to gain the most from AI (IMF)

Digital Government

Expanding e-government and digital public service delivery. 75% Digitalization of Public Services by 2027

The question is no longer *whether* digital will carry growth, it is whether we will govern it well enough to sustain it.

Data Protection & Privacy: The Bedrock of Digital Innovation

Data protection and privacy are the foundational trust mechanism required to unlock digital innovation. Rather than a roadblock, they act as a catalyst for economic renaissance by establishing guardrails necessary for deployment and use of emerging technologies.

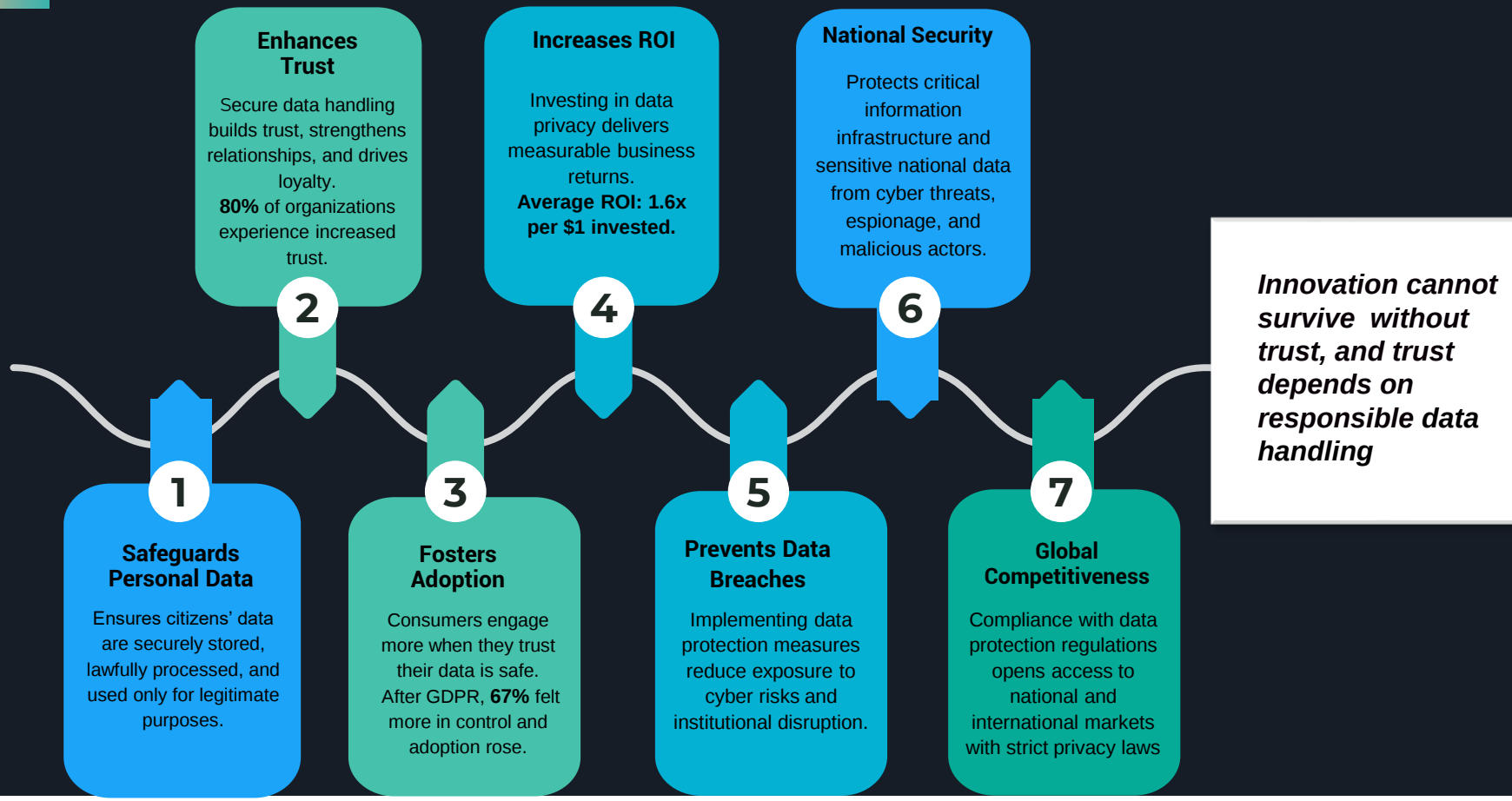
Data Privacy means empowering data subjects to make their own decisions about who can collect and process their data, and for what purpose. It is a basic human right and there are numerous legislations that guard this right: for us in Nigeria, it is the Nigeria Data Protection Act (NDP Act), 2023.

Data Protection, on the other hand, focuses primarily on the technical and organizational measures put in place to safeguard personal data from unauthorized access, misuse, or loss.

Various countries across the world have introduced data protection frameworks to protect privacy rights and ensure compliance among organizations deploying emerging technologies.



The Need for Data Protection & Privacy in Driving Innovation in the Era of Emerging Technologies



Data Protection and Privacy in Nigeria

To ensure responsible and ethical use of data, address governments worldwide are enacting data protection laws.

- ❑ **144 countries** covering **82% of the world's population** and
- ❑ **44 African countries** now have data protection laws.

In Nigeria, President Bola Ahmed Tinubu signed the Nigeria Data Protection Act into law in 2023. It establishes clear rules for how personal data is collected, shared, and stored, protecting citizens' privacy while fostering responsible innovation.

What the NDP Act Means for Key Stakeholders

- ❑ **Citizens:** Strengthened digital rights and privacy protections.
- ❑ **Businesses:** Clear compliance standards and accountability requirements.
- ❑ **Innovators:** Framework for responsible design and ethical data use.



PRESIDENT BOLA AHMED TINUBU SIGNS THE NIGERIA DATA PROTECTION ACT INTO LAW ON THE 12TH JUNE 2023

What the NDP Act Demands of Emerging-Tech Deployers



The NDP Act provides statutory obligations that binds every innovator processing personal data,

s.32,44

NDPC registration & DPO designation

Controllers and processors of major importance must register with the NDPC and designate an expert Data Protection Officer.

s.24

Privacy by design & default

Purpose limitation, data minimisation, storage limitation and accountability — built into the architecture, not appended after launch.

s.25 - 26

Lawful basis & consent

Processing of personal data must rely on a lawful basis. Consent must be informed, specific and freely given.

s.30

Heightened protection for sensitive data

Biometric, health and similar data powering AI and IoT attract stricter conditions and additional safeguards.

s.28

Impact assessment before deployment

DPIA is mandatory where processing is likely high-risk, expressly including new technologies. Residual high risk? Consult the Commission first.

s. 41-43

Lawful cross-border flows

Data leaving Nigeria moves only under adequacy or other permitted bases — sovereignty travels with the data.

s.34, 37

Human check on automated decisions

Data subjects may object to solely automated decisions with legal or significant effect — explainability is a statutory duty, not a courtesy.

s.40

72-hour breach notification

Breaches likely to risk rights and freedoms must reach the NDPC within 72 hours; high-risk breaches go to affected citizens immediately.

The cost of non-compliance: remediation fees/fines up to 2% of annual gross revenue or ₦10 million (whichever is higher) plus compensation orders and profit forfeiture

GAID 2025: The Operating Manual for Emerging Technology

Issued 20 March 2025 and effective 19th September 2025, the General Application & Implementation Directive is the operational blueprint of the Act.



OFFICIAL IMPLEMENTATION!

NDP ACT GENERAL APPLICATION AND IMPLEMENTATION DIRECTIVE (GAID)

TAKES EFFECT FROM TODAY, 19TH SEPTEMBER 2025

Covers the following, among others:

● Data Subjects' Rights ● Principles and Lawful Bases Governing Data Processing ● Remediation of Data Privacy Breach Complaints ● Emerging Technologies ● Data Ethics ● Template for Data Protection Impact Assessment	● New Template for Compliance Audit Returns ● Guidance on Cross Border Data Transfer ● Fees ● Data Protection Officer (DPO) ● Amended Guidance Notice on Registration of Data Controllers and Data Processors of Major Importance
--	---

📍 @ndpcnigeria 🌐 @ndpcngr 📧 @ndpcngr

📄 Nigeria Data Protection Commission 🌐 ndpc

🌐 www.ndpc.gov.ng

GAID further requires organisations to:

- ❑ ensure anonymisation of data collected either from the data subject or a legitimate third-party;
- ❑ Test emerging technologies solutions in controlled or low-risk environments.
- ❑ Assess and address disparate outcomes.
- ❑ Retool and retest systems where risks are identified.
- ❑ Discard systems where risks are unmitigable.
- ❑ Where systems are cleared for use, continuous monitoring and evaluation becomes mandatory.

Building Sustainable Economic Renaissance through Developmental Regulation: The Outcomes

Less than three years after the Act, compliance is becoming culture, and a new professional economy is forming around it.

40,612

data controllers & processors of major importance registered under the NDPA

346

licensed Data Protection Compliance Organisations, a new professional services industry

10662+ verified DPOs

compliance audit returns filed — accountability in writing, not in slogans

1500 IIM CDPOs

investigations into privacy breaches concluded across public and private sectors

27000+ jobs

Created across the data protection ecosystem

~~N~~16.2bn

estimated value of Nigeria's data-privacy ecosystem built under 4 years

Beyond enforcement — building the ecosystem

- **GAID 2025 issued and in force** — the NDPR retired; one harmonised national compliance regime
- **16 Data Privacy Clubs** – established in tertiary institutions
- **Virtual Privacy Academy**— onboarding of 60,000 beneficiaries
- **226 training programmes**— trained 98,231 beneficiaries
- **8500+** compliance audit returns
- **1348 compliance notices** – issued to entities
- **SNAG (citizen redress)** gives every data subject a direct, structured remedy channel
- **Continental thought leadership** — Nigeria's framework referenced across Africa

The proof point for innovators: Nigeria now offers a full statute, an operational directive, and a dedicated regulator — the rails on which trusted innovation runs.

Shaping Our Digital Future Together

Government

Create enabling policies that promote responsible innovation.

Support regulatory sandboxes to allow safe testing of digital innovations.

Awareness and capacity building on data protection & privacy.

Academia

Develop future-ready talent.

Integrate digital literacy, data protection, and AI ethics into curricula.

Promote applied research in privacy-enhancing and emerging technologies.

Private Sector

Invest in ethical innovation.

Ensure transparency and accountability in automated systems.

Embed privacy-by-design and security-by-design into products.

Professional Bodies/NCS

Set and enforce ethical standards for data privacy and AI adoption.

Drive professional capacity building and continuous skills certification.

Advocate for best practices to guide regulatory policies.

Citizens

Exercise digital rights responsibly and protect personal data privacy.

Practice good cyber hygiene to stay safe against online threats.

Demand transparency and active ethical compliance from service providers

Conclusion

Emerging technologies are reshaping economies, industries, and societies at an unprecedented pace. Across the world, countries that successfully harness these technologies are positioning themselves as leaders in the new global economy.

This presents tremendous opportunities for Nigeria. By investing in innovation, digital infrastructure, skills development, and trusted governance frameworks, we can unlock new sources of competitiveness and inclusive growth.

Our collective task is to ensure that Nigeria is not merely a consumer of emerging technologies, but a leading player in the digital economy, driving Africa's economic renaissance through innovation, trust, and responsible technological advancement.



Trust First

Build confidence through robust protection



Govern Responsibly

Enforce frameworks that enable innovation



Collaborate Always

Unite across borders for collective progress

Thank you for Listening

Website: www.ndpc.gov.ng

Email: info@ndpc.gov.ng

 : [ndpcngr](#)

 : [ndpcngr](#)

 : [ndpcnigeria](#)



Kindly scan code to view the
Nigeria Data Protection Act 2023