NIGERIA COMPUTER SOCIETY • RISE 2026 INTERNATIONAL CONFERENCE

Creating New Values and Opportunities in Information Technology

A Keynote Paper presented at the Induction Ceremony of Newly Admitted Professional Members

Conference theme: “Harnessing Digital Innovation and Emerging Technologies for Inclusive Growth and Economic Renaissance”

Daniel Inusa Yakmut, FNCS

Director, ICT | Chairman, Committee of Directors of ICT of Nigerian Tertiary Institutions

Jos, Plateau State • 27 – 30 July 2026

A Profession at Its Own Inflection Point

From the margins of the national conversation to the engine of economic transformation

Many of you were trained in a world where a computer did precisely what it was instructed to do — and nothing more. You are being inducted into a profession in which the machine now drafts, translates, summarises, writes code, reads medical images, and increasingly acts on its own initiative.

The question this address answers

How much of the new value is within reach of a Nigerian professional starting out today? A great deal of it — and this paper defends that with local evidence.

01 A theory of value

Four dimensions of value — economic, social, institutional, human capital — and how the AI era has re-priced each one.

02 A map of the frontiers

Where new value and opportunity actually sit: language, health, agriculture, data, compute, assurance.

03 A gallery of local proof

Nigerian companies, programmes and people who have already done what you are being asked to do.

The Momentum Is Real, and It Is Measurable

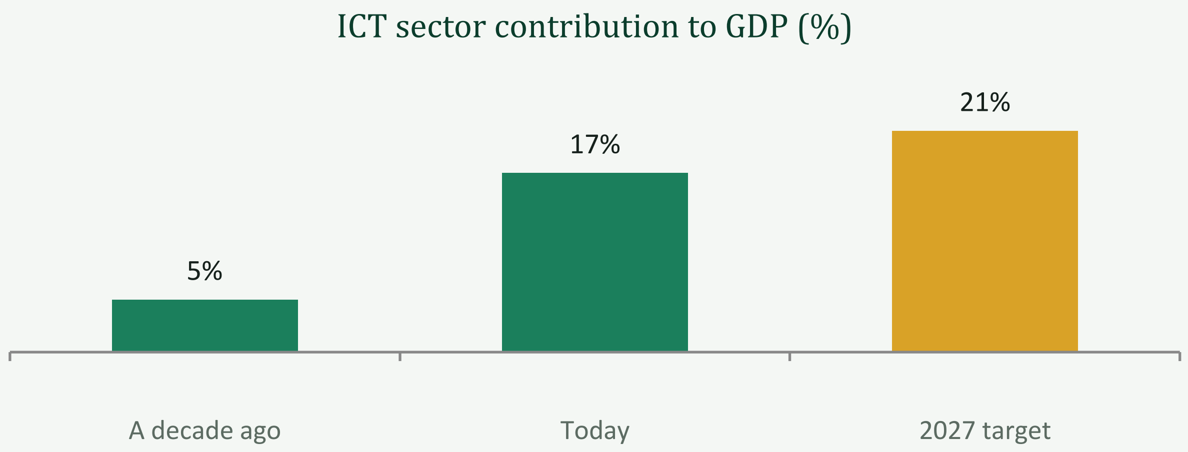
Information technology is no longer a back-office utility — it is the substrate of the economy

11.8%
of real GDP from the digital economy, Q3 2025 (NBS)

$18.3bn
projected digital economy revenue by 2026 — nearly double 2021

100m+
internet users on a mobile-first network

9%+
of real GDP from telecommunications alone



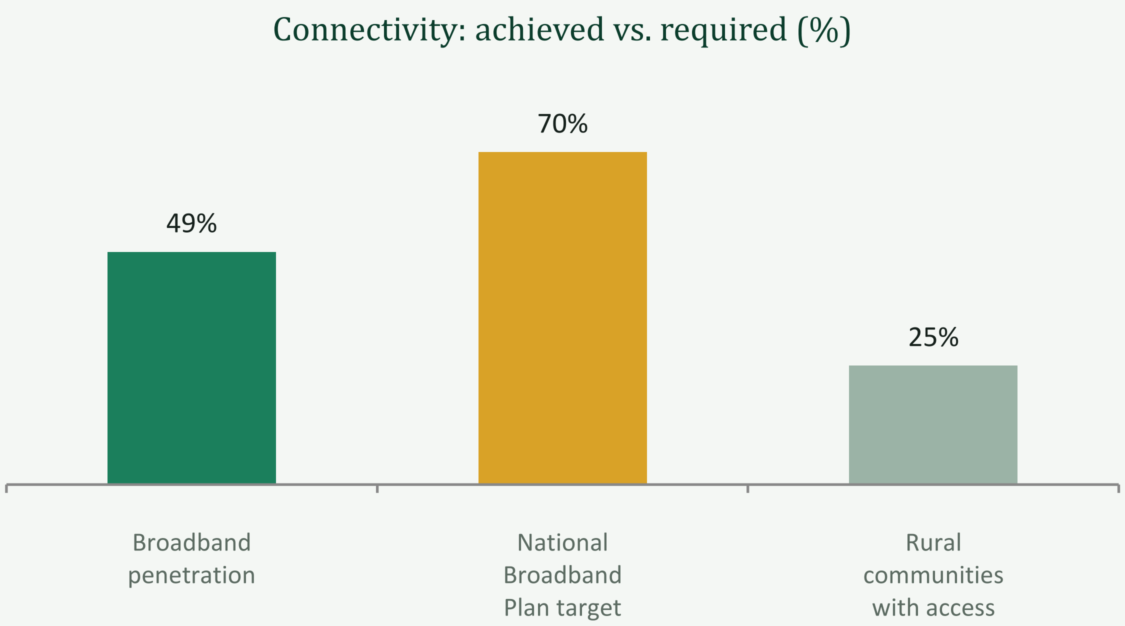
Policy has moved faster than expected

- NITDA's National Artificial Intelligence Strategy, 2024, shaped with home and diaspora researchers
- A national research scheme has funded the first cohorts of Nigerian AI research teams
- AI and machine learning now sit among the 3MTT training tracks
- NCAIR has moved from convening conversations to co-producing working systems

Policy, however, is not value. Value is what gets built on top of policy.

And the Gap Is Where Opportunity Lives

The same data that shows momentum also measures the unfinished work



1. **Infrastructure**
   Broadband below 49% nationally, far lower in rural Nigeria
2. **Talent**
   Nigeria trains capable technologists — many leave soon after
3. **Regulation**
   Right-of-way charges and slow legislative processes raise the cost of building
4. **Equity**
   Women, persons with disabilities and rural populations remain underrepresented

That gap between what has been achieved and what remains possible is precisely where new value is created.

“The best way to predict the future is to invent it.”

— Alan Kay, computer scientist

PART ONE

What Do We Mean by “Value” in IT?

Not the elegance of code, the sophistication of an architecture diagram, or the number of certifications behind one's name.

Four Dimensions of IT Value

Value is measured in outcomes: problems solved, costs reduced, time saved, trust earned, lives improved

1 Economic value

Revenue generated, costs avoided, productivity gained and jobs created — inside an organisation or across an entire economy.

2 Social value

Inclusion extended to the previously unbanked, unconnected or underserved; barriers of geography, disability and income reduced by accessible design.

3 Institutional value

Stronger governance, better data-driven decisions, and more resilient, transparent public and private institutions.

4 Human capital value

The skills, confidence and employability a well-trained IT workforce carries into every sector — including those that are not technology businesses.

A professional fluent in only the technical dimension will always undersell their own contribution. The Nigerian ventures that created the most value speak more than one of these four languages at once.

The AI Era Has Not Replaced These Dimensions — It Has Re-Priced Them

Economic	The cost of producing software, analysis, translation and design has fallen sharply. Knowing which of those things is worth producing has risen just as sharply.	***Effort is cheap. Direction is expensive.***
Social	A system can now converse in Hausa, Yoruba, Igbo or Pidgin with a citizen who cannot read English.	***Literacy in English is no longer the price of admission.***
Institutional	Ministries, hospitals, universities and courts can finally interrogate the records they spent decades accumulating.	***A thirty-year archive is a question waiting to be asked.***
Human capital	AI fluency has become a general professional literacy, as spreadsheet literacy did in the 1990s — plus a new class of AI-adjacent work.	***Performable from Jos or Jalingo, for clients anywhere.***

“Price is what you pay. Value is what you get.”

— Warren Buffett, investor

Where the New Frontiers Lie

Each is already visible on the Nigerian landscape. None requires an invitation from outside.

1 AI & Data

The live question is no longer whether Nigeria will use AI, but whether it will build with it or merely rent it.

2 Fintech & Payments

Shifting from basic rails toward embedded finance, open banking, regtech, fraud models and alternative credit scoring.

3 Cybersecurity & Sovereignty

Identity assurance has become a frontline discipline, not a compliance checkbox.

4 Health, Agric & Logistics

Blood and oxygen supply chains, electronic records, and mobile tools linking smallholders to capital.

5 Data Protection & Governance

With the NDPC established, governance and audit skills sit at the intersection of law, policy and technology.

6 Broadband, Talent & Universities

Our universities remain badly underused as innovation and incubation platforms.

“Innovation distinguishes between a leader and a follower.”

— Steve Jobs, co-founder, Apple

PART TWO

The AI Era: What New Value Has Actually Been Created

Every technology wave generates more commentary than value. It is the duty of a professional body to tell the difference.

Seven New Forms of Value | 1 – 4

What genuinely came into existence, as distinct from what was promised in press releases

1 The cost of expertise has collapsed

A competent first-pass expert can now sit in a clinic in Wase or a classroom in Bokkos at a marginal cost near zero. With fewer than four physicians per ten thousand citizens, this is not convenience — it is a structural change in what is possible. The value is greatest where the scarcity is greatest: here.

2 Language and culture are economic assets

Hausa, Yoruba, Igbo, Pidgin, Fulfulde, Tiv and Kanuri are low-resource in machine-learning terms — a deficiency today, an opportunity tomorrow. No laboratory in California can build a high-quality Tiv corpus. A Nigerian can.

3 Data has become patrimony

Hospital records, NIBSS transactions, agritech yield histories, archived call-centre audio: each is a national asset, and each will train a model for someone. The only question is whose — and the Data Protection Act attaches duties to that answer.

4 Judgement has appreciated as execution has depreciated

Code that took a week can be produced in an afternoon. The scarce input is no longer the ability to implement, but knowing which problem is worth solving — and telling a correct answer from a merely confident one.

Seven New Forms of Value | 5 – 7

5 Verification is valuable because generation is cheap

A voice can be cloned from seconds of speech; documents and identities fabricated at negligible cost. Trust, provenance and explainability are now product features, not compliance overhead. Whoever can prove what is authentic will be able to charge for that proof.

6 The minimum viable team has shrunk

A product that in 2015 needed fifteen people and a seed round can be brought to market by three. Against high naira rates and tightened venture funding, a fall in the capital needed to reach a first paying customer is worth more here than in California.

7 The absence of legacy is an advantage again

We skipped cheque-clearing and went straight to instant transfer. Institutions elsewhere are now spending fortunes retrofitting AI onto 1990s systems. A Nigerian hospital or agency digitising for the first time can design AI-native from the outset.

What now separates the venture that exists from the venture that does not

is less often capital, and more often the decision to begin. This is a narrow window — it closes as soon as the retrofitting elsewhere is complete.

“AI is the new electricity.”

— Andrew Ng, computer scientist

PART THREE

The AI Era: What New Opportunities Have Opened

Values are abstractions until someone converts them into work. Where a frontier is still empty, that is an invitation.

Nine Openings — All Buildable in Nigeria, by Nigerians, Today

1 Language- and voice-first products

Banking, health advice, agricultural extension and schooling delivered by speech, in-language, to a basic handset. The single largest unexploited market in Nigerian technology.

2 Health, where scarcity is most acute

Documentation, triage, radiology and pathology support — not to replace the physician, but to multiply what each can safely handle.

3 Education and the tutoring problem

A patient tutor that speaks the pupil's home language, runs offline on a low-cost device and follows the Nigerian curriculum.

4 Agriculture, climate, smallholders

Pest identification from a photograph, in-language voice advisory, yield forecasting, credit scoring from farm history rather than salary slips.

5 The data layer as an industry

Collecting, cleaning, labelling and validating African data — and evaluating whether models actually work for Nigerian users. Own the value chain; do not supply labour to someone else's.

6 Compute, power, small models

The frontier has moved toward small, quantised, efficient models. Offline-first engineering is not a compromise — it is a specialisation Nigeria has every incentive to lead.

7 Public administration

Revenue collection, procurement analysis, customs clearance, court backlogs. A budget that took analysts a month can now be interrogated in an afternoon.

8 Assurance, governance and audit

Almost nobody in Nigeria can yet state with recognised standing whether a deployed model is fair, safe and lawful. A profession waiting to be founded.

9 The university as a platform

A shared GPU facility, a working technology transfer office, and a pipeline from final-year project to incorporated company.

Where a frontier is still empty, an empty frontier is an invitation.

PART FOUR

Real Nigerian Examples: Value Already Created

Study these closely — they are your true syllabus. None of these founders started with more resources than you have today.

Builders of the Foundation

The generation that built the rails of Nigeria's digital economy

Flutterwave & Paystack

Payments infrastructure at continental scale: over a billion transactions processed, a full CBN banking licence in 2026, and Stripe's $200m acquisition of Paystack.

LESSON *A "boring" back-office problem, solved reliably, became billion-dollar value. Investors doubted both; conviction outlasted scepticism.*

Interswitch

Since 2002, the electronic-payments backbone Nigerian banks depend on — years with little outside funding before Visa's stake pushed it past $1bn in 2019.

LESSON *Patient, unglamorous infrastructure-building can outlast and outvalue louder, faster-funded competitors.*

Andela

Trains African software engineers and places them with global technology companies; reached unicorn status in 2021.

LESSON *Human capital value is itself an exportable, monetisable product. Your training and mentoring carries real economic weight.*

LifeBank

Founded 2016 by Temie Giwa-Tubosun — connects hospitals in real time with blood, oxygen and life-saving supplies across several African countries.

LESSON *Social and economic value are not opposites. A logistics problem solved rigorously is measured in lives as directly as in revenue.*

Helium Health

Electronic medical records and hospital management software across African facilities — and the substrate any credible Nigerian clinical AI will be built on.

LESSON *Digitising unglamorous institutional processes has outsized downstream value.*

ThriveAgric & Farmcrowdy

Mobile tools linking smallholder farmers to financing, inputs and buyers — the sector employing the most Nigerians and attracting the least investment.

LESSON *The sectors furthest from the Lagos spotlight are where inclusion-driven value is least contested.*

Builders of the AI Era

Proof that the frontiers of this address are already occupied by people with Nigerian passports

Awarri, NITDA & NCAIR — N-ATLAS

A multilingual model launched in September 2025, fine-tuned on Yoruba, Hausa, Igbo and Nigerian-accented English, with 3MTT fellows as data collectors.

LESSON *AI sovereignty is not reserved for Silicon Valley. A Nigerian team can build foundational infrastructure rooted in Nigerian languages.*

Intron Health

Dr Tobi Olatunji, a physician turned ML scientist, built clinical speech recognition after imported systems failed on African accents — assembling one of the continent's largest clinical speech datasets.

LESSON *The gap in somebody else's training data is your market.*

Ubenwa

Charles Onu's system applies machine learning to a newborn's cry to detect birth asphyxia — needing only a recording, deployable where no specialist exists.

LESSON *The most valuable AI problems here are defined by scarcity. A diagnostic needing only a microphone beats one needing a million-naira scanner.*

Data Science Nigeria

Founded 2016 by Bayo Adekanmbi to raise a million AI talents through free bootcamps, hackathons and school outreach — years before AI became national policy.

LESSON *Talent ecosystems are built ahead of demand. Those teaching ML in 2017 are why there is a workforce in 2026.*

3MTT — and its honest lesson

Roughly 300,000 Nigerians trained toward a 3-million target; about two-thirds report new jobs or promotions — but roughly a third moved abroad soon after.

LESSON *Talent development without a retention strategy keeps exporting Nigeria's best minds.*

CcHub & “Yabacon Valley”

Nigeria's first incubator, in Yaba, Lagos — helped launch LifeBank and BudgIT and supported well over a hundred startups.

LESSON *Concentrated innovation districts matter. One hub near universities can seed a generation of ventures.*

Note what the AI-era examples have in common: none began with the model. Each began with a Nigerian problem, a Nigerian dataset, or a Nigerian voice the rest of the world had not bothered to hear.

From Technical Skill to Professional Value

Technical competence gets you into the room. Five habits convert skill into value.

1	**Solve a named problem for a named person**	Flutterwave solved payment friction for named merchants. LifeBank solved supply failure for named hospitals. Before writing a line of code, state precisely whose problem you are solving.
2	**Measure and communicate outcomes, not effort**	Report in terms decision-makers understand — hours saved, revenue protected, lives reached, citizens served — not only in technical jargon.
3	**Build for scale and inclusion simultaneously**	ThriveAgric and Farmcrowdy did not chase the already-banked consumer. They built for the smallholder and found a larger, less contested market.
4	**Use the machine as a multiplier — and stay accountable**	Let the tools take the routine load so your hours go to judgement and verification. But the model does not carry your professional liability. Verify everything you sign your name to.
5	**Keep learning structurally, not incidentally**	Certifications, the NCS and CPN, postgraduate study and 3MTT are how personal value compounds. Where the technical half-life is measured in months, this stopped being optional.

Opportunity Is Not Given; It Is Engineered

Four postures — and one standard that makes your certificate mean something

1 Visibility

Publish, present, contribute to open standards, speak at forums such as this one. Value that is invisible might as well not exist to those who could reward it.

2 Networks of reciprocity

Bodies such as the NCS and hubs such as CcHub exist precisely so that value can be exchanged, referred and multiplied across members.

3 Deliberate discomfort

The harder assignment, the unfamiliar stack, the rural deployment instead of the comfortable urban one — that is consistently where new capability is created.

4 Early adoption with discipline

Be first to understand a new capability properly, including its failure modes, and you will be consulted rather than instructed.

Professional ethics in the age of the model

When a model denies a citizen a loan, misreads a scan, marks a script, or flags a transaction as fraudulent, someone must be answerable — and it cannot be the software.

Four questions our codes were not written for:

- Did the training data represent the people the system will judge?
- Can the decision be explained to the person it affects?
- Was consent meaningful?
- Does a human retain authority to overrule the machine?

Challenges That Must Be Confronted Honestly

No credible address to new professionals should understate the obstacles ahead

THE STANDING CHALLENGES

Infrastructure deficits
Broadband below 49% nationally excludes entire communities from the digital economy.

Talent and brain drain
Nigeria trains capable technologists; many take that capability abroad soon after.

Policy and regulatory friction
Right-of-way charges, evolving data obligations and slow legislation raise the cost of scaling.

The equity gap
Inclusive growth — this conference's theme — demands this be treated as a first-order problem.

THE NEW CHALLENGES OF THE AI ERA

Compute and power dependence
A national capability that can be switched off from outside is not a capability.

Representation gaps in data
Models trained elsewhere misread our accents, names, skin tones and risk — and exclude invisibly.

The broken first rung
The entry-level work our graduates learned on is exactly what these systems now do most cheaply.

A widened fraud surface
Security must be rebuilt on the assumption that convincing forgery is now cheap.

Cheap generation, costly verification
The scarce resource in every organisation is becoming the capacity to check.

Governance capacity
Regulation without technical capacity to enforce it produces paperwork, not protection.

A Charge to the Newly Inducted

1. **Anchor your career to problems**
   not to platforms, languages or model providers. Tools change faster than ever; the discipline of problem-solving does not.

2. **Be fluent in the tools and their limits**
   Fluency without scepticism makes you fast and wrong. Scepticism without fluency makes you slow and irrelevant.

3. **Build for the Nigeria that exists**
   Intermittent power, expensive data, low-cost handsets, many languages, users who may not read English.

4. **Contribute to inclusion deliberately**
   Ask who is left out — and ask whose data trained this, and whether it contains people like the ones it will judge.

5. **Guard the Nigerian data patrimony**
   Collect it lawfully, govern it properly, build on it locally rather than surrendering it to be sold back to us.

6. **Mentor before you feel ready**
   Value multiplies fastest when shared, and the first rung of this profession now needs deliberate rebuilding.

7. **Stay certified and ethically anchored**
   Let your NCS and CPN membership be evidence of competence, not merely a formality.

8. **Think globally, build here**
   Much of the world's AI work can now be done from anywhere. Consider building your career's biggest chapter in Nigeria.

Nigeria Stands at an Inflection Point

Momentum is not hypothetical — it was built inside this country, in your lifetime

Flutterwave · **Interswitch** · **Andela** · **LifeBank**

Helium Health · **ThriveAgric** · **Awarri** · **Intron** · **Ubenwa**

Data Science Nigeria · **CcHub** · **BudgIT**

Not distant success stories from another country — proof, built by people who once sat exactly where you sit today.

Why a disproportionate share of the new value is available here

- The value of abundant expertise is greatest where expertise has been scarcest.
- Our languages and our data can only be assembled by us.
- We still have the option, for a short while longer, of building without the burden of legacy.

That window closes not when the technology matures, but when the rest of the world finishes catching up.

The generation before you built the rails. Yours will decide what runs on them, in whose language, and for whose benefit.

Congratulations on your induction

You did not merely join an association today. You accepted a mandate to harness digital innovation and emerging technologies for inclusive growth and economic renaissance.

Thank you

Daniel Inusa Yakmut, FNCS

Director, ICT • Chairman, Committee of Directors of ICT of Nigerian Tertiary Institutions