When The New Moon Rises: Envisioning The Next Horizon Of University Education In Nigeria

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17th Convocation Lecture
Crawford University, Igbesa, Ogun State, Nigeria

November 4, 2025

Contents

Protocol

- The Chancellor of Crawford University, Reverend (Dr.) Isaac Adigun
- Superintendent General of the Apostolic Faith Church Worldwide, Reverend (Professor) Olusola Adesope
- Board of Trustees of WeCA
- Chairman and Members of the Board of Trustees of Crawford University
- Chairman and Members of the Crawford Governing Council
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- Members of The Apostolic Faith Mission Staff in Higher Education (AFMSHE)
- Chairman and members of CRU Parents' Forum
- Other Parents, Guardians, and Families
- Alumni of Crawford University
- Graduating Class of 2025
- Students of Crawford University
- Gentlemen of the Press
- Distinguished Ladies and Gentlemen

I am honoured to deliver this 13th Convocation Lecture, coinciding with the 20th anniversary celebration of Crawford University. This is not merely an academic address; it is a prophetic declaration about the future, a future that, by God's grace, will be brighter than anything we can presently envision.

Introduction: The Celestial Vision

The Night the Moon Spoke

Chancellor, Distinguished Ladies and Gentlemen,

One of nature's most captivating celestial spectacles is the emergence of a new moon, that sublime moment when darkness surrenders to light, when obscurity gives way to radiance, and when a fresh cycle begins, laden with promise and boundless possibilities. The title of this 20th anniversary convocation lecture, ***"When the New Moon Rises: Envisioning the Next Horizon of University Education in Nigeria,"*** was conceived approximately seven weeks ago during one of the most remarkable astronomical events of recent times - a blood moon eclipse.

On that unforgettable evening, my gaze fixed upwards as the celestial drama unfolded in majestic slow motion. I witnessed and documented the gradual shadowing of the moon's luminous face, the encroaching darkness that seemed, for a moment, to threaten the moon's

very existence. But then, more gloriously still, I observed the slow, steady removal of that dark covering, the triumphant reemergence of the celestial body in all its God-given splendour. What had appeared as an eclipse, a temporary obscuring of light, proved to be merely a prelude to renewed brilliance.

That contemplative moment beneath the heavens, that silent communion with creation's testimony to its Creator, sparked within me, a threefold prophetic vision that I believe speaks directly and urgently to our gathering today. Like the ancient prophets who received divine messages through natural phenomena, Moses at the burning bush, Elijah in the still small voice, the wise men following the star, I received these insights as I gazed heavenward:

First: The Future of Crawford University Will Be Brighter Than Anything We Can Perceive Today

Just as that moon emerged from eclipse more brilliant, for having passed through temporary shadow, just as the morning sun rises with greater glory after the night's darkness, so too shall Crawford University rise to unprecedented heights in the coming decades. The challenges of these first twenty years, the resource constraints, the infrastructural limitations, the competitive pressures, these are not permanent eclipses but temporary shadows before a new dawn. The Crawford University of 2045 will bear testimony to God's faithfulness and this community's perseverance in ways we can scarcely imagine today.

Second: The Future of University Education in Nigeria Will Shine With Unprecedented Brilliance

The difficulties we currently face in Nigerian higher education, inadequate funding, recurring industrial actions, infrastructure deficits, brain drain - these are not the final chapters in our educational story. They are but temporary eclipses before an educational renaissance. Just as the blood moon I observed was not being destroyed but transformed, so too is Nigerian university education not dying but being prepared for rebirth. The next twenty years will witness a golden age of Nigerian higher education, marked by innovation, excellence, global recognition, and transformative impact on our nation and continent.

Third: The Future of Nigeria Among the Nations Will Be Bright and Distinguished

Nigeria, like that eclipsed moon, has experienced seasons of shadow, economic challenges, security concerns, political turbulence, and international scepticism. But this temporary obscuration cannot and will not extinguish our national destiny. Nigeria will emerge from present challenges to take its rightful place as a beacon of hope, innovation, and leadership in Africa and beyond. Our educational institutions will be key instruments in this national transformation.

The Indispensable Precondition: Righteousness

Yet, beloved gathering, I must emphasise with prophetic clarity and without equivocation that this threefold divine-inspired forecast rests upon one indispensable, non-negotiable precondition: **We must be right with God in all our ways.** This is not religious platitude

or ceremonial rhetoric - it is the foundational principle upon which sustainable excellence, enduring prosperity, and genuine transformation must be built.

As our new Vice-Chancellor, Professor Solomon Makinde, has declared with conviction in his rallying cry, **"We must be on the Lord's side."** This is not a call to passive religiosity or superficial spirituality. It is a summons to active alignment with divine principles, integrity in administration, excellence in teaching, diligence in research, transparency in governance, compassion in student affairs, and righteousness in all our dealings.

The Holy Bible overflows with such cautionary entreaties, divine warnings coupled with magnificent promises:

- **The prophet Amos** penetrated the comfortable complacency of his generation with a piercing question: "Can two walk together, except they be agreed?" (Amos 3:3). How can Crawford University, how can Nigerian education, walk with God toward a bright future if we are not agreed with His standards of righteousness, justice, and excellence?
- **The prophet Joel** called for comprehensive national repentance as the indispensable precursor to divine restoration: "Therefore also now, saith the Lord, turn ye even to me with all your heart, and with fasting, and with weeping, and with mourning: And rend your heart, and not your garments, and turn unto the Lord your God: for he is gracious and merciful, slow to anger, and of great kindness" (Joel 2:12-13). True educational transformation requires spiritual transformation—hearts committed to excellence, minds dedicated to integrity, institutions consecrated to divine purpose.
- **The prophet Hosea** reminded God's wayward people of the path to restoration: "Come, and let us return unto the Lord: for he hath torn, and he will heal us; he hath smitten, and he will bind us up. After two days will he revive us: in the third day he will raise us up, and we shall live in his sight" (Hosea 6:1-2). There is healing for Nigerian education's wounds, revival for our declining standards, resurrection for our compromised integrity—but only through return to divine principles.
- **We recall the prophet Jeremiah's** counsel to a nation facing crisis and uncertainty, words that resonate powerfully with our contemporary challenges: "For I know the thoughts that I think toward you, saith the Lord, thoughts of peace, and not of evil, to give you an expected end" (Jeremiah 29:11). God has plans for Crawford University, for Nigerian education, for our nation—plans to prosper us and not to harm us, plans to give us hope and a future. But these plans must be accessed through obedience and faith.
- **And we remember Daniel**, that extraordinary young man who, even in Babylonian captivity far from home, "purposed in his heart that he would not defile himself" (Daniel 1:8). In an environment of compromise and cultural pressure, Daniel maintained his standards. As a result, God rewarded him with "knowledge and skill in all learning and wisdom" that surpassed all the wise men of the greatest empire of his age (Daniel 1:17-20). Daniel's example speaks powerfully to Crawford University and to every institution committed to excellence with integrity.

These are not mere Biblical quotations for ceremonial decoration. They are foundational principles for institutional sustainability, prophetic warnings against complacency, and divine promises for those who choose the path of righteousness.

PART I: Thanksgiving- Twenty Years of Divine Faithfulness

The Foundation: Recalling the Beginning

"Except the Lord build the house, they labour in vain that build it" (Psalm 127:1). This Biblical wisdom has proven true in the story of Crawford University. As we pause to give thanks for twenty years of existence, we acknowledge first and foremost that Crawford University is not the product of human ingenuity alone, but the fruit of divine vision planted in human hearts and nurtured by faithful stewardship.

Twenty years ago, in 2005, in a nation where private universities were still relatively novel, where scepticism about faith-based higher education was substantial, and where the challenges of establishing and sustaining a university were formidable, Crawford University was born. The founding vision was audacious: to create an institution that would not compartmentalise faith and learning but integrate them; that would not sacrifice academic excellence on the altar of spirituality nor compromise spiritual formation for academic credentials; that would produce graduates distinguished not merely by their technical competencies but by their character, integrity, and values.

Milestones Worth Celebrating

Over these twenty years, Crawford University has accumulated a record of achievements worthy of thanksgiving:

Academic Accreditation and Recognition
From initial resource accreditation to full programme accreditation across multiple disciplines, Crawford has consistently met and exceeded National Universities Commission standards. Programmes that began as fledgling initiatives now stand as fully accredited courses producing graduates competitive in the Nigerian and international job markets.

Infrastructural Development
From modest beginnings, the Crawford campus has grown to include more academic blocks, laboratories, libraries, student hostels, administrative buildings, and sports facilities. Each structure represents sacrificial investment, careful planning, and commitment to providing an enabling environment for learning.

Academic Staff Development
The university has assembled and continues to nurture staff comprising numerous professors, senior lecturers, and other academic staff, many holding terminal degrees from prestigious institutions worldwide. From an assessment a few days ago at Workshop No. 3 on Improving Ranking of Crawford University conducted by AFMSHE, Crawford staff have published impressive research papers, secured research grants, and contributed to knowledge advancement in their respective fields.

Student Success Stories
Many graduates have passed through Crawford's halls over these twenty years, now serving in various capacities across Nigeria and beyond. Crawford alumni serve as engineers, educators, business leaders, civil servants, and entrepreneurs. Their successes in further

studies, professional certification examinations, and career advancement testify to the quality of education received.

Research and Innovation
Despite resource constraints typical of young private universities, Crawford has established itself well in research and innovation. These achievements, while modest compared to older, better-resourced institutions, represent significant progress and demonstrate research capacity.

Community Impact
Crawford University has been a blessing to its immediate community in Igbesa and surrounding areas through community engagement programmes: entrepreneurial outreach, literacy programmes, agricultural extension, infrastructure development and employment provision. The university has become an integral part of the community fabric, contributing to local development.

Spiritual Formation

Perhaps most distinctively, Crawford has maintained its commitment to spiritual development. Our graduates are steep in knowledge and deep, very deep in Godliness (please see details of spiritual blessings received from 2016 to 2025 in Professor Solomon Makinde's report of the Chaplaincy on pages 230-231 in the Crawford @ 20 book).

Acknowledging the Builders

This twenty-year journey has been made possible by:

- **The Founder and Proprietors** whose vision, faith, and financial sacrifice birthed and sustained CRU
- **Board of Trustees and Governing Council Members** past and present, who provided governance wisdom and strategic direction
- **Ministers of The Apostolic Faith in WeCA and in other Districts in Africa and other regions of the world** who were unrelenting in their prayers for Crawford University
- **Vice-Chancellors and Principal Officers** who translated vision into operational reality
- **Academic Staff** who taught with dedication often beyond the call of duty and financial compensation
- **Administrative and Support Staff** whose often-unsung contributions kept the university functioning
- **Students** whose pursuit of knowledge and commitment to excellence justified the enterprise
- **Parents and Sponsors** who entrusted their children and resources to Crawford's care
- **Alumni** who have become ambassadors of the Crawford brand
- **The Local Community** (Igbesa, Anthony and Oye-Ekiti) who welcomed the university and partnered in its development
- **Government Agencies** particularly NUC and JAMB, whose regulatory and admission oversight and support enabled growth
- **Partner Institutions** locally and internationally especially Washington State University who collaborated in various capacities

Above all, we acknowledge the Almighty God, the Author and Finisher of our faith, the Source of all wisdom, the Provider of all resources, the Sustainer through challenging seasons, and the Guarantor of future success. To Him alone be glory, honour, and praise!

PART II: The Current Landscape: Nigeria's University Education In 2025

Before we can responsibly envision the future, we must honestly and comprehensively assess our present reality. Nigerian university education today stands at a potentially transformative juncture, marked simultaneously by remarkable resilience and formidable challenges, by pockets of excellence and areas of concerning decline, by enormous potential and substantial constraints.

This section of the lecture is not rooted on conjectures or "them say, them say" but on empirical data sourced from the National Universities Commission (NUC)- the most credible and internationally accepted source. Data were drawn, among others from the *State of University Education in Nigeria*, 2017, 2018, 2019, 2020, 2021, 2022, and 2023 and the NUC Digest of Statistics, 2017, 2018, 2019, 2020, 2021, 2022 and data from 2025 NUC Bulletins.

The Quantitative Reality: Numbers That Tell Our Story

Number of Universities and Student Enrolment

Nigeria currently has 301 universities as of October 31, 2025, comprising 159 private institutions, 68 state universities, and 74 federal universities. This represents exponential growth from the singular University College Ibadan established in 1948, demonstrating our nation's commitment to expanding access to higher education. Yet, this large number masks deeper structural challenges.

As of 2024, approximately 2.5 million students were enrolled in Nigerian tertiary institutions, with over 1.8 million in universities alone as full-time undergraduates. While these numbers appear substantial in absolute terms, they pale when considered against demand and demographic realities.

The Assessment: Critical but Not Catastrophic

The current state of Nigerian university education is critical but not catastrophic. We face enormous challenges: inadequate funding, recurring strikes, infrastructure deficits, brain drain, quality concerns, and capacity constraints. Yet, we retain significant assets: a committed academic community, resilient students, a growing private sector, governmental awareness of problems, international partnership opportunities, and a demographic dividend of young people eager for education.

The question is not whether Nigerian university education can be transformed - it can and must be. The question is whether we will summon the collective will, mobilise the necessary resources, implement the required reforms, and sustain the commitment required for transformation. The answer to that question will determine whether the next twenty years bring renaissance or further decline, breakthrough or continued mediocrity, hope fulfilled or promise squandered.

In Brief- Assessment of Performance in Teaching, Research and Community Service

Universities worldwide are entrusted with three major functions- teaching, research and community service/engagement. I summarise in this section of the lecture, the performance of Nigerian universities over the last four years on the three measures.

Teaching and Innovations

Federal Universities: Federal universities such as Ahmadu Bello University, Zaria, Federal University Kashere, and Bayero University, Kano, employ a broad array of teaching modalities. They integrate lectures, tutorials, practical laboratory sessions, and digital learning solutions. For instance, Ahmadu Bello University revised its curriculum in 2022 to embed new skills for global competitiveness, launched a Teaching and Learning Policy, and conducted extensive digital skills workshops including collaborations with UNESCO-ICHEI. During disruptions like the COVID-19 lockdown and national industrial actions, these universities shifted parts of learning activities online, though large-scale e-learning adoption remains constrained by funding and ICT infrastructure deficits.

A notable innovation is the use of blended learning, such as at the Federal University Dutse, where e-learning platforms like Edmodo and smart boards are adopted, facilitating both face-to-face and remote student engagement. System-wide, quality assurance is reinforced through regular evaluations, curriculum reviews, and application of Open Educational Resources (OER) alongside both in-class and online assessment methods.

State Universities: State universities also mirror many federal approaches but often face heightened challenges due to inconsistent funding and governance. They report acute infrastructure and personnel shortages, periodic academic calendar disruptions, and rely significantly on state appropriations and internally generated revenue.

Private Universities (Including Crawford University): Private universities distinguish themselves by rapid adoption of e-learning, extensive use of Learning Management Systems (LMS), and innovative pedagogies such as flipped classrooms and technology-aided learning. For instance, at Covenant University and Chrisland University, teaching is heavily digitalised, with compulsory smart board use, upload of lecture content for asynchronous access, and adoption of blended modalities, which have become standard even post-pandemic.

As reported to NUC in 2022 and 2023, Crawford University emphasised quality teaching through up-to-date instructional materials, intelligent use of technology such as Open Educational Resources and computer-based testing, and regular feedback mechanisms including student evaluation of lectures. Courses are supported by robust laboratory and ICT resources, and frequent reviews are undertaken to reflect evolving academic standards. The university also focused on practical skills and continuous assessment, combined with a strong mentorship model.

Research Activities

Federal Universities

Federal institutions consistently attract the lion's share of competitive research grants, both nationally (TETFund, national agencies) and internationally (DAAD, World Bank, UNESCO). Ahmadu Bello University boasts over a hundred research departments and numerous research institutes, winning grants toward malaria management, renewable energy, and agricultural mechanisation. Applied research at these universities includes the development of COVID-19 diagnostic tools, agricultural technologies, and mass production of essential medical devices during the pandemic.

State Universities: State universities like Ekiti State University report steady, albeit more modest, research activity, focusing on regionally relevant topics, such as local agriculture, entrepreneurship, and public health, often constrained by lower funding and intermittent support from state governments.

Private Universities (Including Crawford University): Research in private universities is rapidly expanding, though still faces challenges due to limited access to public funding sources like TETFund. Flagship private universities such as Covenant and Redeemer's have established world-class research centres, published hundreds of indexed journal articles annually, and maintain active patent portfolios in biotechnology and informatics.

At Crawford University, research is coordinated through a dedicated Office of Research, Linkages and International Collaboration. Recent staff projects have included:

- Application of machine learning algorithms for breast cancer prediction
- Plant-based preservation studies to reduce post-harvest loss in tomatoes
- Policy analysis of mortgage and housing finance in Lagos State

Crawford supports attendance at conferences and enables collaborative research across departments. However, challenges include the need for more advanced equipment in science disciplines and access to external research grants.

Community Service and Societal Engagement

Federal Universities: Federal universities are deeply engaged in local capacity-building, public health outreach, and community education. For instance, Federal University Kashere delivers agricultural extension services and entrepreneurship programs, partners with host communities for sanitation and health campaigns, and provides specialized training in response to regional needs. Activities include free medical outreach, disaster response logistics, and participation in national public enlightenment programs. During the COVID-19 crisis, several universities established COVID-19 testing centres and produced face masks and hand sanitizers for local distribution.

State Universities: State universities provide similar services but often on a smaller scale due to resource limitations. Their impact is significant in educational outreach, grassroots health programs, and regional economic interventions through business incubation.

Private Universities (including Crawford University): Private institutions distinguish themselves through sustained, structured involvement in their host communities. Both Covenant University and Chrisland University run annual health drives, literacy campaigns,

and support local schools and vulnerable populations. Crawford University has a vibrant community engagement ethos:

- Organising inter-secondary school quiz and debate competitions in Igbesa and environs
- Running reading campaigns, debate competitions, and awareness events on World Book Day and World Malaria Day, including distribution of books and mosquito nets
- Providing free vocational and entrepreneurship training to locals
- Outreach during COVID-19: donation of sanitizer and manufactured facemasks, public health workshops and awareness drives

Crawford also opens its sports facilities to local schools for their events and maintains regular academic partnerships with surrounding educational institutions.

Institutional Development and Challenges

- Federal universities face chronic underfunding, staff shortages (exacerbated by hiring embargo), and episodic disruptions caused by labour disputes and national crises. Despite these constraints, innovation and expansion continue, though infrastructural needs often outstrip available financial resources.
- State universities struggle most with revenue generation, state interference, and resource management, managing to sustain progress mainly through strong leadership and collaboration with non-governmental actors.
- Private universities, such as Crawford, Covenant, and Chrisland, are agile in infrastructure expansion, curricular reviews, and adaptation to technological change. However, they contend with high operational costs, lack of access to public research funding, and, increasingly, high student attrition driven by national migration trends and economic hardship.

All together

Nigeria's universities- federal, state, and private, demonstrate a rich spectrum of approaches to teaching, research, and community engagement. Federal universities lead in scale and research impact but are hampered by funding and labour issues; state universities sustain vital local engagements amid resource volatility; private universities like Crawford University are frontrunners in digital pedagogy, community service, and nimble institutional development. Despite sector-specific challenges, all continue to evolve in response to national needs and global trends, reflecting resilience and innovation across the higher education landscape.

The Funding Challenge

The 2024 budget allocated approximately 7.9% to education, while the 2025 appropriation provides N3.52 trillion to education, representing 7.3% of the total budget. These figures, though representing the highest education allocations in Nigeria's history in absolute terms, remain far below UNESCO's recommendation that developing countries allocate 15-20% of their national budgets to education, and 4-6% of GDP. To put this in comparative perspective: South Africa allocates about 6% of its GDP to education and 20% of total government expenditures. Finland allocates approximately 7% of its GDP to education. Nigeria's education spending as a percentage of GDP declined from 5.14% in 2021 to 4.30% in 2022, demonstrating a concerning downward trajectory even as absolute allocations increase.

The Student Experience: Excellence Despite Adversity

Despite systemic challenges, Nigerian university students demonstrate remarkable resilience and determination. They navigate overcrowded classrooms, cope with inadequate facilities, endure academic calendar uncertainties, and still manage to achieve. Nigerian graduates excel in postgraduate programmes internationally, succeed in professional certification examinations, and contribute meaningfully in various careers. This testifies not to system adequacy but to student resilience, excellence achieved despite, not because of, systemic support.

Private Universities: Innovation Within Constraints

Private universities, including Crawford, have provided important system capacity, absorbing many of the students not admitted by public universities and offering alternatives characterised by:

- Calendar Stability: Freedom from staff union strikes ensuring predictable academic calendars
- Smaller Class Sizes: Enhanced student-faculty interaction
- Modern Infrastructure: Often superior physical facilities
- Faith Integration: Explicit in providing values education
- Entrepreneurial Culture: Greater responsiveness to market demands

However, private universities in Nigeria enrol less than 7% of all tertiary students combined, despite constituting over half of all universities. This limited impact stems from:

- High Tuition Costs: Fees ranging from N500,000 to over N2,000,000 annually, excluding accommodation
- Limited Scholarships: Insufficient financial aid restricting access
- Resource Constraints: Dependence primarily on tuition revenue limiting investment
- Regulatory Burdens: Similar NUC requirements as public universities but without government support funding

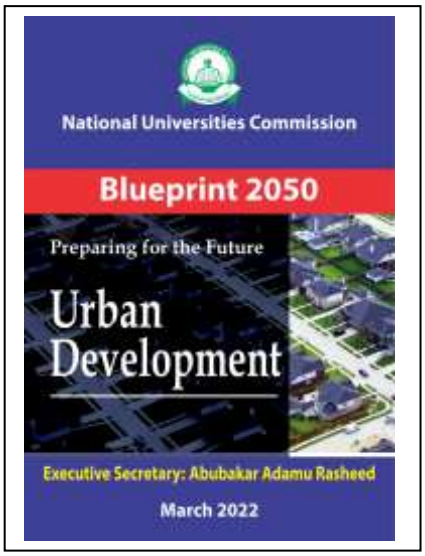
Let us now turn to examine the forces shaping the next decade and envision the future, we do so with eyes wide open to current realities, hearts committed to transformation, minds engaged in strategic thinking, and spirits trusting in divine possibility. It is instructive to begin with a peep into Nigeria in 2050.

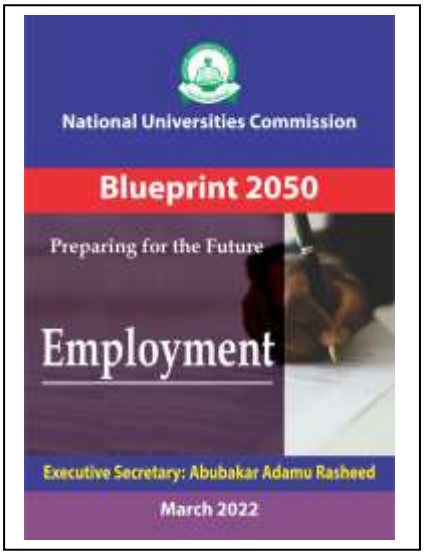
Nigeria in 2050

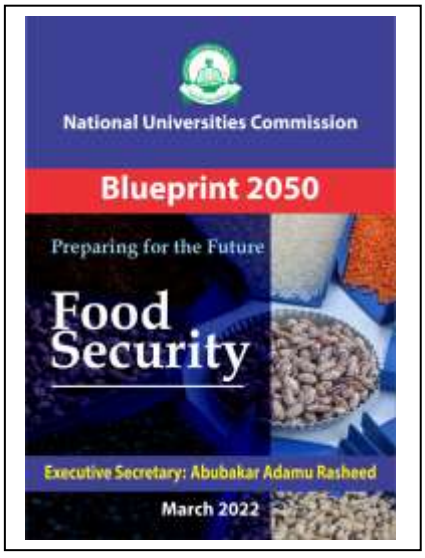
Let me paint some scenarios that will confront us when we open our eyes in 2050. The 2050 scenarios will be on agriculture and food security, health, education, national security, housing, public transportation and seven others. Major questions addressed are:

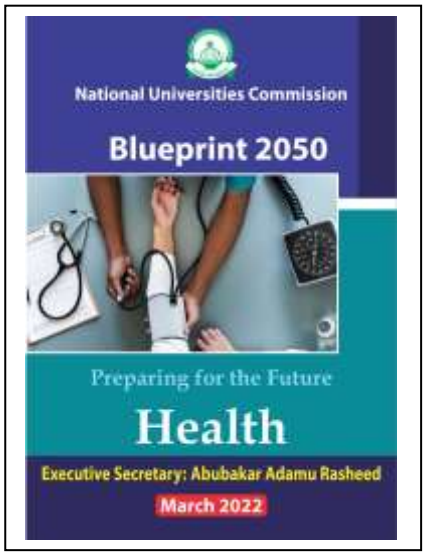
1. How do we feed the people?
2. How do we ensure their health security?
3. How do we educate them?
4. How do we provide housing for them?
5. How do we provide transportation?
6. How do we provide employment for them?

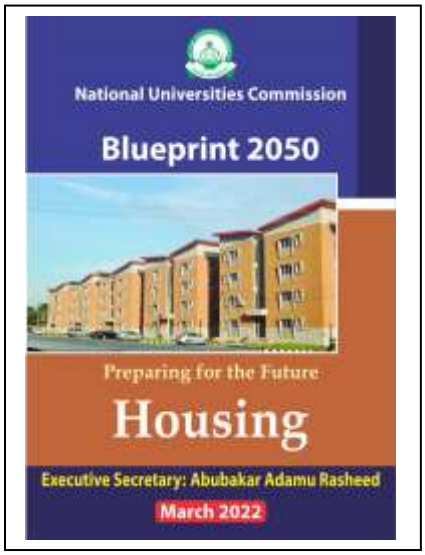
7. What mode of governance is best?
8. How do we secure the country (internal and external)?
9. How do we provide (uninterrupted) power for the citizenry?
10. How do we maintain our megacities?










National Universities Commission
Blueprint 2050
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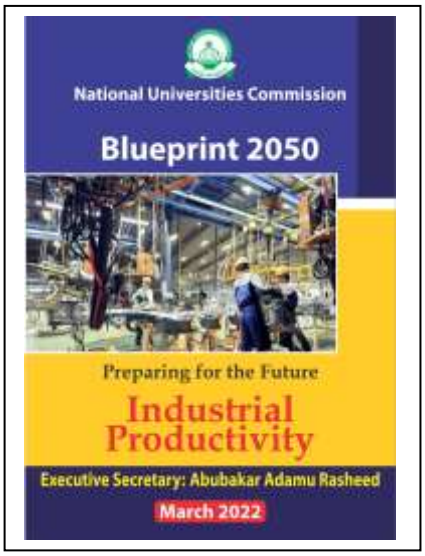
March 2022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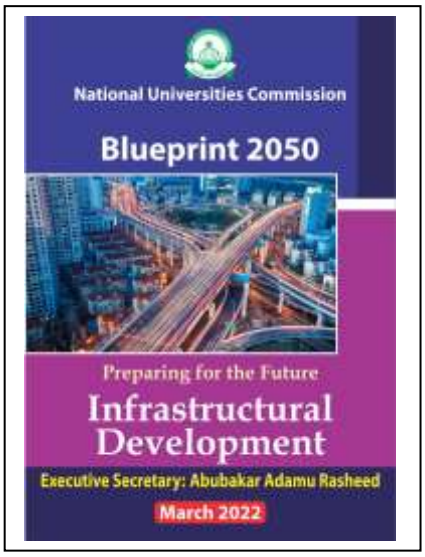
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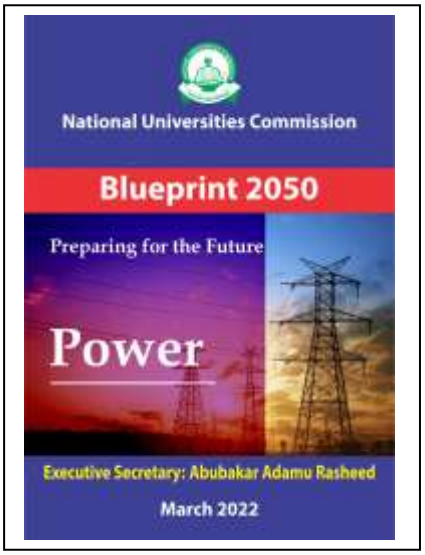
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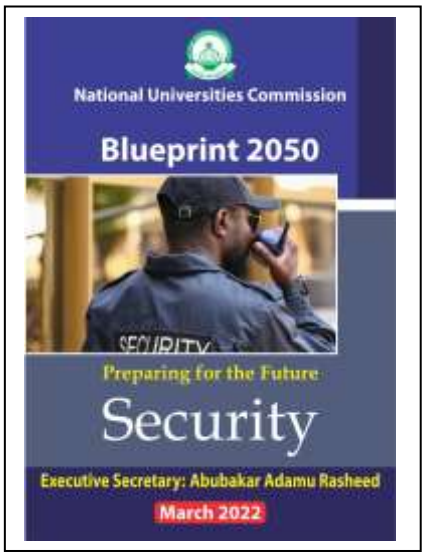
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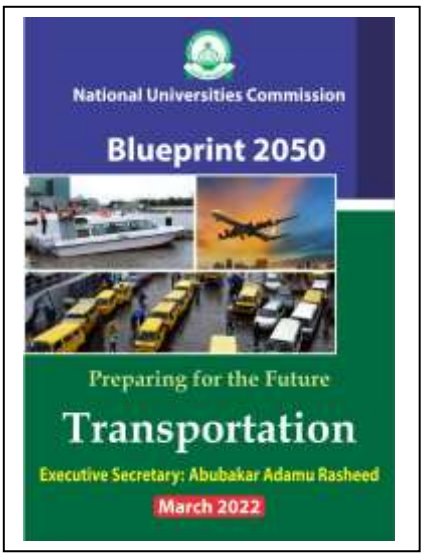
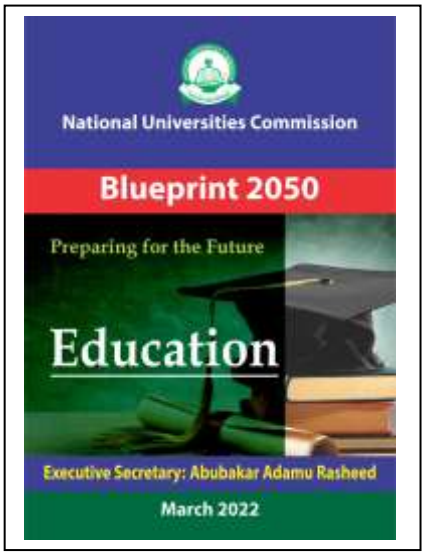




The Role of Education in the actualisation of Blueprint 2050

The National Policy on Education currently in use will be inadequate for the delivery system of 2050. We need the new wine of 2050 in a new wine skin. We need a future-fit policy that will be the lodestone to guide all facets of delivery at the formal and non-formal levels, and which will place due accent on the use of technology and promote innovation. The teacher education component of the policy should be significantly upgraded to ensure that Nigerian teachers are prepared for 21st century classrooms with its unique characteristics.

On access, all school-age children should be in school and offered quality education that is relevant to the socio-cultural context. The ugly garb of high number of out-of-school children should be shed.

On quality, two areas are of priority- quality of input and quality of process. Overlaying the two is quality assurance. The input into the education system in 2050 would include learners, teachers and other school personnel, facilities, the curriculum and funding. Using the Nigerian phraseology, we must "shine our eyes" to ensure that all input elements do not fall below quality standards. This is where uncompromising quality assurance kicks in. The process dimension involving interactions in classrooms, laboratories and teaching and learning in other settings would need to be intensely quality assured. What does this mean operationally? The quality assurance units of Federal and State Ministries of Education, the regulatory agencies of NUC, NBTE, NCCE and Professional bodies would need to be strengthened to deliver on their mandate without the allure of "filthy lucre".

21st century skills needed in the workplace and for survival by 2050

There are key 21st century skills, attitudes and values that will be needed in the workplace and for successful living in Nigeria by 2050. Our educational system should be configured to ensure the development of these skills, attitudes and values. I am sure you noticed that I added attitudes and values to the traditional focus on skills. Without positive attitudes and societally approved values, the skills will be of little consequence and impact. My list for this lecture is as follows:

- Critical thinking and Problem Solving
- Creativity and Innovation
- Collaboration and Teamwork
- Digital Literacy
- Flexibility and Adaptability
- Social and Cross-Cultural Skills
- Leadership and Accountability
- Local, National and Global Awareness
- Entrepreneurship
- Systems thinking
- Environmental Literacy
- Ethical and Responsible Use of Technology
- Resilience and Stress Management
- Management of diversities and learning to live together
- Love of country
- Fear of God

I will annotate a few of the skills, attitudes and values.

- *Critical Thinking and Problem Solving*: Ability to analyse complex problems, evaluate solutions, and make decisions. Logical reasoning and the ability to view issues from multiple perspectives. Jobs will increasingly require the ability to analyse complex information, solve problems creatively, and think critically about challenges.

- *Collaboration and Communication*: The ability to work effectively in teams, respecting diverse viewpoints, and leveraging collective intelligence. Communicating clearly across cultures and building strong relationships will be crucial for success.

- *Digital Literacy and Tech Savvy*: Technology will continue to permeate every aspect of life. A strong foundation in digital literacy and the ability to learn new technologies will be essential.

- *Creativity and Innovation*: Generating new ideas, thinking outside the box, and fostering creative solutions. Applying creative processes to solve real-world problems. As automation takes over routine tasks, human creativity will be even more valuable. The ability to think outside the box, generate new ideas, and innovate will be key to success.

- *Self-Directedness and Initiative*: The workplace will likely become more flexible and require individuals to take ownership of their work and manage their time effectively.

- *Intercultural Competence:* In an increasingly globalised world, the ability to understand and appreciate different cultures will be essential. Understanding and respecting cultural differences. Working effectively in diverse teams and communicating with people from various backgrounds.

- *Adaptability and Lifelong Learning*: The pace of change will only accelerate. Workers who can adapt to new technologies, learn new skills, and embrace change will be highly sought after.

- *Sustainability Thinking*: As the world grapples with climate change and resource depletion, the ability to think sustainably and develop solutions for a healthy planet will be critical.

- *Flexibility and Adaptability*: Adapting to changing circumstances and environments. Being open to new ideas and approaches.

- *Emotional Intelligence*: Recognizing and managing one's own emotions and the emotions of others. Building strong interpersonal relationships and navigating social complexities.

- *Entrepreneurial Skills:* Thinking entrepreneurially, taking calculated risks, and innovating. - Understanding the basics of business and financial literacy.

- *Global Awareness:* Understanding global issues and their impact on local and global communities. Acting with an awareness of global interdependencies and sustainable practices.

- *Love of country:* also known as patriotism, is a deep-seated sense of pride, loyalty, and devotion to one's nation. It does not mean blind love (although it is often said that love is blind!). It means to stand by the country. It does not mean to stand by the Governor, President, or any other public official. It highlights the importance of a balanced, rational love of country over blind nationalism. It is exemplified by pride in national identity (proud to be a Nigerian), appreciation and respect for the nation's history, traditions, and cultural practice, and reverence for national symbols such as the flag, anthem, and other emblems that represent the country. It is demonstrated by loyalty and allegiance and commitment to the country's wellbeing. Other indicators are respect for national values, adherence to rule of law, commitment to the principles of fairness, justice, and equality and constructive patriotism- ability to critically evaluate the nation's actions and policies, advocating for positive changes and reforms.

- *Fear of God:* is a deep respect, reverence, and awe for God, often coupled with a commitment to live according to divine principles and moral standards. In going about our daily business, we should be guided by the divine rules of "love your neighbour as yourself" and do onto others as you would want done onto you". If we adhere to these tenets, what a peaceful world would we have!

Part III: Global Forces And Nigerian Dynamics Shaping The Next Decade (2025-2035)

The next decade of university education in Nigeria will be shaped by the convergence of powerful global forces and specific Nigerian dynamics. Understanding these forces is essential for strategic planning, resource allocation, and policy development. Let us examine them systematically.

Global Forces Reshaping Higher Education

1. The Artificial Intelligence Revolution: Artificial intelligence represents not merely the latest educational technology but a fundamental paradigm shift comparable to the invention of writing, the printing press, or the internet. The global market for AI in education is expected to reach $20 billion by 2027. More specifically, the global AI in education market was estimated as USD 32.27 billion by 2030, growing at a compound annual growth rate of 31.2%.

Research indicates that AI technologies enhance retention rates by as much as 30% through personalised learning, and 54% of students show increased engagement when AI tools are incorporated. Universities using AI tools experience a 12% increase in graduation rates. Research from McKinsey (2024) indicates that personalised learning can improve student outcomes by up to 30%.

What This Means for Nigerian Universities

Earlier in the year, the Virtual Institute for Capacity Building in Higher Education (VICBHE) where I serve as Director/Facilitator-General, organised an 11- week intensive training for over 4,000 staff in the Nigerian higher education system. From a 3-volume Handbook which emerged as spin-off, the following advantages of AI were identified. (1) Personalised Learning at Scale: A single lecturer, say in Crawford University, can, through AI, provide customised feedback, identify struggling students early, and adjust instructional approaches based on learning analytics. (2) Research Acceleration: AI tools will revolutionise research by processing vast datasets, identifying patterns, conducting literature reviews, suggesting research directions, and even generating hypotheses. A Nigerian researcher with limited resources can, through AI, compete with well-resourced international counterparts. (3) Administrative Efficiency: AI will automate routine administrative tasks such as admissions processing, timetable generation, exam scheduling, and transcript production freeing staff for more strategic, human-centered work. (4) Assessment Transformation: AI will enable students to receive real-time feedback on assignments, allowing iterative improvement rather than single-point evaluation. (5) Accessibility Enhancement: AI-powered language translation, text-to-speech, speech-to-text, and content summarisation will enhance accessibility for students with disabilities or language barriers.

Challenges and Ethical Considerations

However, concerns about AI are substantial and must be addressed. These include (1) Academic Integrity: How do we assess genuine learning when AI can generate essays, solve problems, and even write code? (2) Digital Divide: Will AI exacerbate educational inequality, with well-resourced institutions and students accessing superior AI tools while others are left

behind? (3) Critical Thinking Erosion: Will over-reliance on AI atrophy students' critical thinking, problem-solving, and creative capacities? (4) Bias and Fairness: AI systems trained on biased data perpetuate and amplify those biases, raising concerns about fairness in assessment and opportunity. (5) Employment Displacement: As AI automates various professional tasks, what should universities teach to prepare students for an AI-augmented workforce?

The Nigerian Imperative

We must not be spectators in the AI revolution. Nigerian universities must integrate AI literacy across all disciplines as a core competency; develop indigenous AI solutions responsive to African contexts and challenges; invest in AI infrastructure and staff training immediately; establish ethical frameworks for AI usage in teaching, learning, and research; partner with technology companies to access tools and expertise; and position ourselves as contributors to global AI development, not merely consumers.

2. The Skills-Employment Nexus: Bridging the Persistent Gap

The disconnect between university curricula and employer needs is a global phenomenon, but particularly acute in developing economies. Employers worldwide report difficulty finding candidates with needed skills despite high unemployment among university graduates. A global talent shortage survey (McKinsey, 2024) found that 77% of employers struggle to find skilled workers, the highest in 17 years. Thanks to the NUC Core Curriculum and Minimum Academic Standards (CCMAS) which has come just in time as remediation.

What Employers Want

Employers consistently identify critical skills gaps. These include: Digital Literacy: Competence with digital tools, data analysis, and emerging technologies; Critical Thinking: Ability to analyse complex problems, evaluate information, and develop solutions; Communication: Written and oral communication, including cross-cultural communication; Collaboration: Teamwork, relationship-building, and collaborative problem-solving; Adaptability: Learning agility, resilience, and capacity to navigate change; Emotional Intelligence: Self-awareness, empathy, interpersonal sensitivity; Creativity: Innovation, design thinking, creative problem-solving; and Entrepreneurial Mindset: Initiative, opportunity recognition, resourcefulness. Again, thanks to the NUC Core Curriculum and Minimum Academic Standards (CCMAS) which has come just in time as remediation.

The African Context

In Africa, youth unemployment coexists paradoxically with skills shortages. The African Development Bank (AfDB 2023) reports youth unemployment rates of 30-40% in many African countries, while simultaneously, employers report inability to find qualified candidates. This reflects not deficiency of education quantity but inadequacy of education quality and relevance.

A McKinsey report (2024) found that only 15% of African employers consider graduates adequately prepared for work. The gap is particularly acute in technical skills (STEM, digital literacy, trade skills) but also in soft skills (communication, teamwork, problem-solving).

Nigerian-Specific Forces Shaping The Next Decade

While global forces affect Nigerian higher education, several Nigeria-specific dynamics will particularly shape the next decade:

The Brain Drain Syndrome: The *Japa* Acceleration

Inadequacy in funding and resultant challenge with research infrastructure directly fuel the exodus of experienced academic staff, a phenomenon known as the *Japa* (exit) syndrome. This drain is depleting the intellectual capacity of the nation's universities at an alarming, almost existential rate.

There are several examples of data that confirm the depth of this crisis. Reports indicate that as of 2023, some frontline federal universities have seen academic staff resignations reach crisis levels: up to 75% of lecturers at the University of Ibadan, 50% at Obafemi Awolowo University (OAU), and 40% at the University of Ilorin have reportedly resigned or sought greener pastures abroad or in the highly competitive Nigerian private sector. African nations like Ethiopia have actively recruited Nigerian professors, with some reports suggesting over 200 professors have been attracted there. The consequences are stark: a drastically increased student-to-faculty ratio, forcing institutions to rely on adjunct staff or, worse, inexperienced junior faculty, compromising the quality of research and graduate mentorship. Until competitive remuneration and state-of-the-art research environments are provided, the global talent war will continue to claim our brightest minds.

The Access and Capacity Pressure

Nigeria is a nation defined by its youthful demography, creating immense pressure for higher education access. The annual competition for university placement highlights a fundamental systemic failure to absorb qualified young people. Consider the Unified Tertiary Matriculation Examination (UTME) statistics: approximately 1.63 million candidates sat for the 2024 UTME. However, only about 639,263 (39%) secured admission offers. For 2025, the application figures are higher, and admission concluded on October 31. We await the final statistics from JAMB.

This means a large chunk of students are left stranded because the system lacks the physical and human capacity to absorb them especially also that candidates shun admission to polytechnics and colleges of education. Furthermore, there is a severe course-to-demand mismatch. While high-demand courses like Medicine, Law, and Engineering are heavily oversubscribed, fields critical for national development often have vast unused capacity. For example, 2024 data show that despite national developmental needs, education-related courses had over 111,000 available slots but attracted only around 52,000 applicants, while agriculture-related courses had approximately 30,000 vacancies but only saw 20,000 applicants. This mismatch is perpetuated by poor career guidance and the societal bias towards generic degrees over high-demand, specialised skills. This pressure underscores the essential role of private universities in national stability and capacity absorption.

Current Policy and Developmental Drivers

Despite the deep challenges, there are ongoing, proactive reforms that signify a collective movement toward the New Moon.

The Dual Mandate Initiative: The move by the National Universities Commission (NUC) and the National Commission for Colleges of Education (NCCE) to actualise a dual-mandate allowing Federal Colleges of Education to concurrently run degree programmes, is a significant policy shift aimed at increasing access and bridging the critical gap in teacher education. This decentralisation of degree-granting authority is a pragmatic attempt to harness existing infrastructure and rapidly consolidate teacher quality, especially in specialized skills and technical trades.

Focus on Employability and Skills: The NUC's continuous review of the Minimum Academic Standards (MAS) into the Core Curriculum and Minimum Academic Standards (CCMAS) and the promotion of initiatives like the STEP-S (Skills Training and Entrepreneurship Programme) demonstrate a national pivot towards producing future-and-labour-market fit graduates Universities are now explicitly mandated to integrate entrepreneurship and practical, industry-relevant skills into their core curriculum, signalling an official acknowledgment that the traditional model is no longer sufficient.

The TETFund Renaissance and Triple Helix: The Tertiary Education Trust Fund (TETFund) is shifting its focus. While historically dedicated to basic infrastructure (*bricks and mortar*), recent allocations demonstrate a clear strategic pivot towards modern, critical needs. There is increased support for the National Research Fund (NRF) and a strong emphasis on the Triple Helix initiative- a model advocating for the collaboration of University (Research), Industry (Commercialisation), and Government (Policy), to translate academic output into tangible economic value, rather than allowing papers to gather dust in obscure journals. Digital and Green Transition: Significant funding is now being allocated for energy projects (solar, gas power) and the launch of electric campus shuttle services, underscoring a commitment to institutional sustainability and modernisation, crucial steps for campuses to function in the digital age.

Demographic Dividend or Demographic Disaster? The Youth Bulge

Nigeria's youth bulge is unprecedented in human history. Nigeria's population under age 30 currently exceeds 120 million people, making it one of the world's youngest populations. By 2030, Nigeria will have over 70 million young people aged 15-35, and by 2050, Nigeria is projected to have the world's third-largest population at over 400 million, with the median age remaining under 25. This demographic reality presents two divergent futures:

Scenario One: Demographic Dividend
If properly educated, skilled, and employed, this youth bulge could drive unprecedented economic growth. Research shows that countries that invested in youth education and created employment opportunities during demographic transitions experienced rapid economic growth- the "Asian Tigers" (South Korea, Taiwan, Singapore) being prime examples. These countries saw GDP growth rates of 7-10% annually for decades, driven largely by educated, productive young populations. For Nigeria, a demographic dividend scenario would mean:

- Rapid economic growth driven by productive young workers
- Innovation and entrepreneurship explosion
- Increased tax revenues enabling public investment
- Rising incomes and living standards
- Enhanced global competitiveness
- Demographic strength becoming geopolitical advantage

Scenario Two: Demographic Disaster (God forbid)

However, if these young people remain uneducated, unemployed, and disillusioned, this youth bulge becomes a demographic disaster. Large populations of unemployed youth correlate strongly with social instability, violence, extremism, and political upheaval. Nigeria already faces security challenges in the Northeast (Boko Haram insurgency), Northwest (banditry), Southeast (separatist agitations), and Middle Belt (farmer-herder conflicts). A vast army of unemployed, hopeless youth would exponentially worsen these challenges.

A demographic disaster scenario would mean:

- Massive unemployment and poverty
- Increased crime and violence
- Political instability and potential state failure
- Brain drain acceleration as educated youth flee
- Social fragmentation and conflict
- Economic stagnation or decline

The Education Determinant

Which scenario materialises depends very much on education. The demographic dividend occurs only when youth are educated and skilled. The International Labour Organisation estimates that each year of additional education increases individual earnings by approximately 10% and contributes 0.37% to annual GDP growth.

What This Means for Universities

Nigerian universities face enormous pressure to: Expand Capacity: Accommodate millions more students over the next decade; Ensure Quality: Expansion must not sacrifice quality for quantity; Enhance Relevance: Produce employable, entrepreneurial graduates; Accelerate Graduation: Reduce time-to-degree ensuring young people enter the workforce faster; Provide Access: Make education affordable and accessible across socioeconomic strata. This is not merely an educational challenge but a national survival imperative. Universities are not peripheral to Nigeria's future; they are central determinants of whether we achieve demographic dividend or suffer demographic disaster.

Part IV- The Next Horizon: Forecasting University Education In Nigeria (2025-2035)

Having examined current realities and the forces shaping change, let us now telescope into the future, envisioning what university education in Nigeria could and should become over the next decade. This is not idle speculation but strategic foresight, examining trends, projecting trajectories, and envisioning possibilities to guide present action.

Let me paint a picture of what we are likely to encounter when we walk into a typical Nigerian university campus in 2035 (see UNESCO, 2022). By 2035, the university student population will be dominated by the tail-end of Generation Z and the first wave of Generation Alpha (born from ~2010 onwards). Their formative years would have been shaped by pervasive technology, economic pressures, and a uniquely Nigerian digital-cultural fusion. I will examine

selected demographics and forecast that in about ten years the typical Nigerian university student will demonstrate the following strengths, weaknesses and nuances. Let us begin with intellectual capacities (see fuller details in Okebukola, 2025).

Intellectual Capacities

1. *Strengths:* AI-supported learning from secondary school will make them quick information synthesisers but not necessarily critical thinkers unless intentionally trained. Enhanced visual-spatial intelligence and pattern recognition from a lifetime of interacting with complex digital interfaces (apps, games, social media). They will be excellent at parallel processing, juggling multiple streams of information simultaneously.
2. *Weaknesses:* Potentially shorter attention spans for deep, linear, and sustained critical thinking. A tendency to value speed of information retrieval over depth of understanding. The skill of memorisation will be further devalued, replaced by "search engine literacy."
3. *More specialised and career-oriented:* Students will likely pursue fields aligned with global trends such as AI, data science, climate tech, and entrepreneurship.
4. *Nuance:* A sharp divide may emerge between students from elite private schools who have been trained in critical thinking and those from under-resourced systems, potentially widening the gap in analytical rigour.

IT Savvy

1. *Assumed Digital Nativity- Digital Native 3.0*: The 2035 student would have grown up in an era where *mixed reality* and *AI companions* are mainstream. Expect high proficiency in coding, data analytics, and use of virtual reality for learning. IT savvy will not be a distinguishing trait but a baseline expectation, like breathing. They will not "use" technology; they will *inhabit* it.
2. *AI as a Co-pilot:* Generative AI (like advanced versions of ChatGPT) will be fully integrated into their workflow for brainstorming, drafting, coding, and research. The line between their own work and AI-assisted work will be blurry and ethically challenging.
3. *Platform Fluency:* Mastery of emerging platforms (beyond current social media) for learning, collaboration, and personal branding. Expect high proficiency in virtual and augmented reality for practical courses like Medicine, Engineering, and Architecture.
4. *Cybersecurity Awareness:* With increasing data threats, students will be more privacy-conscious, though prone to cyber-risk behaviour on social media and the dark web.

Motivation

1. *Pragmatic and Outcome-Driven:* Students will prioritise learning that connects directly to employability, entrepreneurship, and global relevance. Motivations will shift from "degree for job" to "skill for income."
2. *Global Identity:* Many will aspire to work remotely for international firms, seeing the world as their workplace.
3. *Hyper-Pragmatism:* Motivation will be intensely utilitarian. The primary driver will be employability and skill acquisition for a gig economy, not knowledge for its own sake. Questions like "How will this topic help me get a job or start a business?" will be paramount.

4. *Entrepreneurial Spirit:* A significant portion will see university as a networking hub and incubator for their startup ideas, influenced by the success of Nigerian tech entrepreneurs.
5. *Declining Institutional Trust:* Less reverence for the university as an unquestionable authority. They will demand to see the return on investment (ROI) of their time and fees.

Reading Culture and Study Habits

1. *The Decline of Long-Form:* The deep, immersive reading of physical textbooks will be a niche activity. Consumption will be dominated by audio (podcasts, audiobooks), video (explainer videos, lectures snippets), and interactive micro-content.
2. *Just-in-Time Learning:* Instead of "just-in-case" learning (studying everything for exams), habits will shift to "just-in-time" learning - grabbing specific information needed to complete a task or project immediately.
3. *Collaborative and Digital-First:* Study groups will be digital and asynchronous, using collaborative documents, messaging apps, and shared AI tools. Individual, silent study will be less common.
4. *AI-Mediated Study:* Students will rely on AI study companions for summaries, flashcards, and quizzes. The traditional library will morph into an *interactive digital knowledge lab*.

Dressing

1. *A Blend of Global and Local*: A continued fusion of global streetwear trends with Nigerian cultural elements (e.g., Ankara accessories with sneakers and jeans). Comfort and personal brand expression will be key.
2. *Influence of Digital Identity:* Their style will be heavily influenced by digital micro-trends and online personalities (Nigerian and global influencers). What they wear on campus will be considered content for their social media profiles.
3. *Context-Aware Dressing:* They will easily switch between casual wear for lectures and more formal or specific attire for presentations, internships, or networking events.
4. *Informality and Individualism:* There will be greater tolerance for personal expression, tattoos, piercings, and gender-neutral dress, demanding cultural adaptability from university authorities.

Part VI- Preparing for the world of 2035

The 2035 student will demand a radical shift from the traditional, lecture-centric model. Preparation must start now (Okebukola, 2023; 2025).

For University Teachers

1. *Pedagogical Shift*: Move from "sage on the stage" to "guide on the side", facilitating *inquiry-based, AI-assisted, experiential learning*. The primary role will be to curate knowledge, facilitate critical thinking, and mentor students in applying information.
2. *Design for Digital Attention Spans:* Break lectures into shorter, engaging segments; use more visuals and interactive elements. Assign tasks that require critical thinking over simple information recall.

3. *Promote Ethical Use of AI:* Develop assessments that require original thought, personal reflection, and synthesis of interdisciplinary knowledge to combat the over-reliance on AI for plagiarism.
4. *AI Literacy*: Teachers must master generative AI, VR tools, and adaptive learning platforms to match students' tech proficiency.
5. *Assessment Reform*: Replace traditional exams with project-based, and AI-verified assessments to test originality and ethical use of technology.
6. *Emotional Intelligence and Mentorship*: As students face digital fatigue and identity issues, lecturers will need counselling and mentoring skills. The primary role will be to curate knowledge, facilitate critical thinking, and mentor students in applying information.
7. *Embrace and Integrate AI:* Do not ban AI. Instead, teach students how to use it ethically and critically. Design assessments that AI cannot easily solve, e.g., project-based learning, real-world problem-solving, and assignments that require personal reflection and synthesis.
8. *Redesign Pedagogy:* Incorporate micro-learning, gamification, and video content. Flipped classrooms will become the norm, where students consume lecture content digitally and use class time for interactive problem-solving.
9. *Focus on Meta-Skills*: Prioritise the teaching of critical thinking, creativity, collaboration, and communication (the 4 Cs) over rote memorisation of facts. Teach them how to learn, unlearn, and relearn.

For University Managers (Administrators & Policymakers)

1. *Infrastructure Overhaul*: Invest relentlessly in robust, high-speed internet and reliable power (solar energy will be very important). Build AI-enabled classrooms, virtual learning spaces, and cyber-secure digital environment. This is no longer a luxury but the very oxygen of the modern university.
2. *Policy and Ethics Frameworks*: Develop guidelines for responsible AI use, data privacy, dress codes that respect individuality while preserving decorum.
3. *Sustainability Orientation:* Embed green technologies and sustainability culture into campus life.
4. *Continuous Staff Development:* Establish mandatory and ongoing training programmes for lecturers on digital pedagogy, AI tools, and new teaching methodologies.
5. *Update Policy and Ethics Frameworks:* Develop clear, modern policies on AI use, digital plagiarism, and data privacy. The old definitions of academic misconduct will be obsolete.
6. *Improve Student Support:* Invest in career services that focus on entrepreneurship and strengthen mental health and guidance counselling to address issues of stress, identity, and apathy.

For Parents

1. *Shift Success Metrics*: Move beyond defining success solely by academic grades. Encourage and value skills, internships, project work, and entrepreneurial ventures.
2. *Foster Digital Intelligence:* From a young age, teach children not just how to *use* digital tools, but how to use them *wisely*. Discuss online safety, critical evaluation of information, and digital footprint management.

3. *Support Financial & Digital Literacy:* Prepare your children for a gig economy by teaching them about personal finance, contracts, and personal branding. Equip them with devices and data access, recognizing them as essential learning tools, not luxuries.
4. *Partner with the University:* See the university as a partner in your child's development. Engage with career services and mentorship programs, and encourage your child to take advantage of these non-academic offerings.
5. *Early Digital Guidance:* Expose children to technology responsibly — balancing creativity with ethical awareness.
6. *Support for Lifelong Learning:* Encourage skills upgrading even in adulthood; 2035 students will model their learning habits on their parents' curiosity.
7. *Values Reinforcement:* With rising global influences, parents must strengthen moral grounding, empathy, and cultural pride at home.
8. *Support Non-Traditional Career Paths:* Be open and supportive of their entrepreneurial ambitions and their desire to pursue non-conventional but globally relevant careers.

Practising What I Preach

Before closing this lecture, it is helpful to show that the foregoing "commandments" are not just pontification from the pulpit. With God's help, I have been able to demonstrate the practicability of some, through my recent inventions and activities. For this lecture, I will exemplify with three pedagogies emerging from over 50 years of my research. The uniqueness of these pedagogies is that they are deeply immersed in our cultural context and emerging technologies especially Artificial Intelligence. The trilogy of (1) Culturo-Techno-Contextual Approach (CTCA); (2) Model-and-Surpass Pedagogy (MSP) and (3) Culturo-Techno-Contextual Artificial Intelligence (CTCAI) Pedagogy is fast gaining global acceptance and application. As of today, November 4, 2025, a total of 243 research articles from all over the world have confirmed the efficacy of CTCA. In addition, 18 PhD theses and 24 Master's project reports have successfully researched CTCA. A series of experiments all over Africa is currently underway on CTCAI and MSP. Let me provide a little more detail on the history of these efforts (see Okebukola, 2020).

The Culturo-Techno-Contextual Approach (CTCA) represents the culmination of over four decades of inquiry into effective methods for teaching Science, Technology, Engineering, and Mathematics (STEM) subjects to African students. Invented by Peter Okebukola and officially launched in 2015, CTCA has emerged as a culturally responsive teaching strategy designed to empower African students to learn science meaningfully in the digital age through the integration of culture, technology, and locational context. Its efficacy for improving students' performance has been demonstrated in other subject areas.

CTCA integrates three frameworks- culture, technology, and context. This amalgam converts difficult concepts into learnable experiences, with an explicit, stepwise classroom routine for teachers. Over the last decade, CTCA has been field-tested across multiple subjects and countries, with positive effects on achievement, attitudes, and practical skills. In chemistry, quasi-experimental studies and replications reported higher post-test performance and stronger retention when topics such as nuclear chemistry and other "hard" concepts were taught the CTCA way, compared with lecture-dominant methods. In physics, classroom studies framed around culture, technology and local context documented reductions in learning anxiety and gains in conceptual understanding, adding convergent evidence that the model travels beyond a single discipline. In biology, multi-site and cross-country work, ranging from cell division to evolution, has similarly shown significant achievement advantages for

CTCA groups and improved student dispositions toward science learning. In ICT and computer science education, randomised and quasi-experimental implementations have demonstrated sizable performance benefits on spreadsheet skills and complex computing topics, suggesting the CTCA routine is well-suited to technology-mediated classrooms.

Beyond STEM, CTCA principles have been applied to public administration curricula in Ghana and Nigeria, where identifying "difficult key concepts" and then teaching them through culturally anchored, technology-supported lenses improved learners' grasp of policy, bureaucracy, and governance. While Nigeria, Ghana, Burundi, The Gambia and Sierra Leone host much of the empirical base, there is a growing cluster of studies and pilots elsewhere (for example, in Burundi, Malaysia, the UK and the US), pointing to transferability across settings when the steps are faithfully followed.

As implementations multiplied, teacher feedback spurred iterative refinements. "CTCA Plus" added structured enhancements (for example, richer multilingual support, sharper community-context tasks, and tighter assessment routines) that several classroom studies credit with improved engagement and outcomes in topics such as food, nutrition and metabolism and in computer studies. CTCA 2.0 further codified the routine for both mono- and multilingual delivery, clarifying the flow of activities and the points at which digital tools should enter the learning sequence. Recent scholarly reviews synthesise these trajectories, locating CTCA within African-centred, culturally responsive pedagogies that foreground learners lived knowledge while leveraging appropriate technologies.

Emergence of AI in Classrooms

Generative AI has arrived in schools at speed, and its promise is double-edged. Evidence from systematic reviews suggests AI can scaffold explanation, personalisation, and collaboration, with measurable gains on certain learning outcomes. At the same time, researchers and professional bodies warn that uncritical or heavy reliance can blunt higher-order thinking, reduce engagement, and short-circuit the effortful analysis that deep learning requires. Studies tracking classroom use of tools like ChatGPT echo these tensions: benefits in drafting and ideation are offset by risks of "outsourcing" reasoning and a measurable dip in critical-thinking engagement when students treat AI as an answer machine rather than a thinking partner. Policy guidance from UNESCO and national agencies converges on a human-in-the-loop stance: keep educators at the centre; insist on transparency, age-appropriate guardrails, and assessment designs that require students to evidence their own analysis, synthesis, and problem-solving. These developments pose a direct challenge for CTCA because many of its gains were built on self-fostered achievement, learner agency, and culturally anchored reasoning that can be diluted if AI replaces rather than supports student thinking.

The Need to Embed AI (Ethically and Moderately) into CTCA

Given the irreversible trend of increasing AI adoption in education, a proactive and strategic response is required. Rather than resisting this technological shift, a more pragmatic path involves reconceptualising pedagogical frameworks to harness AI's potential ethically and effectively. This necessitates the embedding of AI into the proven structure of CTCA, giving rise to Culturo-Techno-Contextual Artificial Intelligence Pedagogy (CTCAI).

The core objective of CTCAI is to leverage AI as a scaffold for learning, not as a substitute for it. Within this model, AI tools are positioned as supportive assistants that can help students access information, generate initial ideas, or visualise complex concepts. However, the pedagogy is explicitly designed to require students to complete the key intellectual steps of

analysis, synthesis, evaluation, and problem-solving. The AI serves to augment the learning process within a culturally relevant and contextually situated framework, ensuring that technology enhances rather than diminishes human intellect.

In CTCAI, students must still perform the cognitive "heavy lifting": framing a problem, selecting relevant cultural anchors, articulating causal explanations, testing claims against local evidence, and defending solutions orally or in writing. This keeps CTCA's core promise intact, which is culture- and context-rich sense-making, while equipping learners with practical AI literacy and ethics.

Steps in the Use of CTCAI

CTCAI preserves the familiar CTCA flow while specifying when and how AI may be used.

Foundational Steps

1. Select an AI tool (chatbot) for the class e.g. ChatGPT, Gemini, Copilot, Perplexity, Claude or any other.
2. Decide on AI access (phone, laptop, or projector). Where internet-enabled phones are not allowed in the school, teacher to seek approval for a handful of phones to be available for the lesson or to project from a laptop.
3. Train students to see AI as a partner, not a final authority. Foster awareness of ethical, responsible, and limited dependence on AI. Demonstrate how to ask (prompt) AI.
4. Present two or three principles for AI use (e.g., no copy-paste, always fact-check, cite AI support).
5. Dedicate short sessions to issues like plagiarism, bias in AI systems, responsible use, and digital footprints. For instance, show students how an AI tool might generate biased outputs and discuss why.
6. Co-create with students a "CTCAI Charter" (dos and don'ts), emphasising AI as an aid, not a replacement for their thinking.

Pre-lesson activities

1. At least four days before the lesson, the teacher informs students of the topic for the next lesson.
2. Students are instructed to use AI tool to obtain resources related to the lesson (with cultural referents) including YouTube videos. Students are to watch at least two YouTube videos on the topic.

Excerpts from World Press Reports on MSP

At the 2025 international conference of the International Research Group (IRG) co-hosted by the Commonwealth Association of Science, Technology and Mathematics Educators (CASTME) which ended on September 18, Professor Emeritus Peter Okebukola, former Executive Secretary of the National Universities Commission (NUC) and former Chairman of the Governing Council of the National Open University of Nigeria launched another method for delivering quality Science, Technology. Engineering and Mathematics (STEM) education. Professor Okebukola who, in 1992, emerged the first African to win the UNESCO Kalinga Prize for the Communication and Popularisation of Science, invented the Model-And-Surpass Pedagogy (MSP) which was formally presented to the global education community by Professor Jomo Mutegi, a past President of the National Association of Research in Science

Teaching (NARST), an international organisation headquartered in the US for promoting quality science education. At the ceremony were participants from the US, UK, Burundi, Ghana, Finland, Nigeria, The Gambia, Mauritius and Sierra Leone.

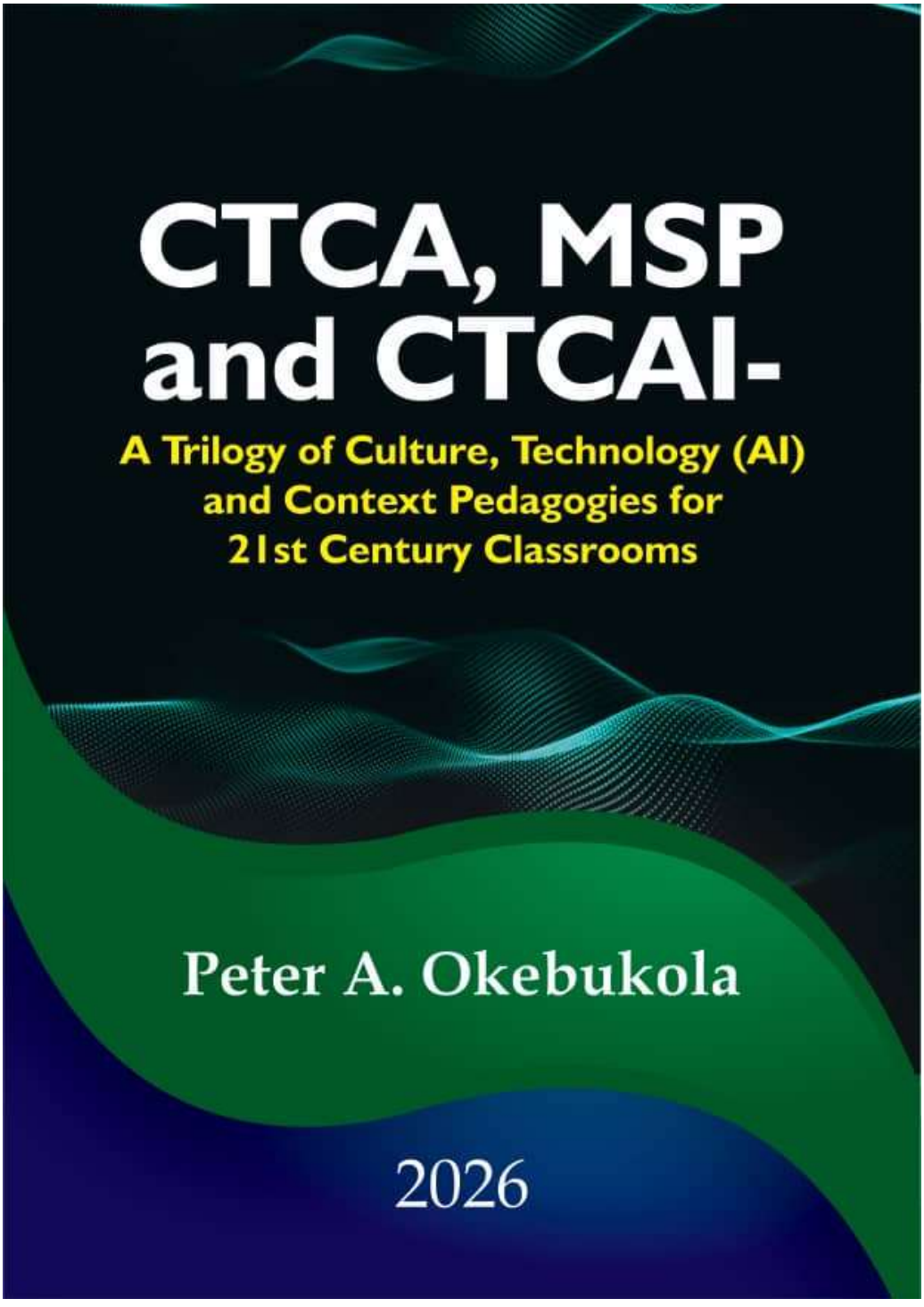
According to Okebukola, "my motivation for inventing methodologies for teaching science which won me the 1992 UNESCO Prize, is based on the overload of methods of teaching developed by non-Africans which are not fit for purpose for the African cultural context. The impression is always given that the method must be developed by the West to be right. Our researchers gleefully deploy these "oyibo" methods and fail to look inwards to innovate in developing and researching socio-culturally relevant approaches to teaching. Additionally, the lacklustre performance of our students in STEM can be attributed, at least in part, to this methods mismatch. The overriding goal of my efforts is to elevate achievement in and improve the attitude of our students towards STEM".

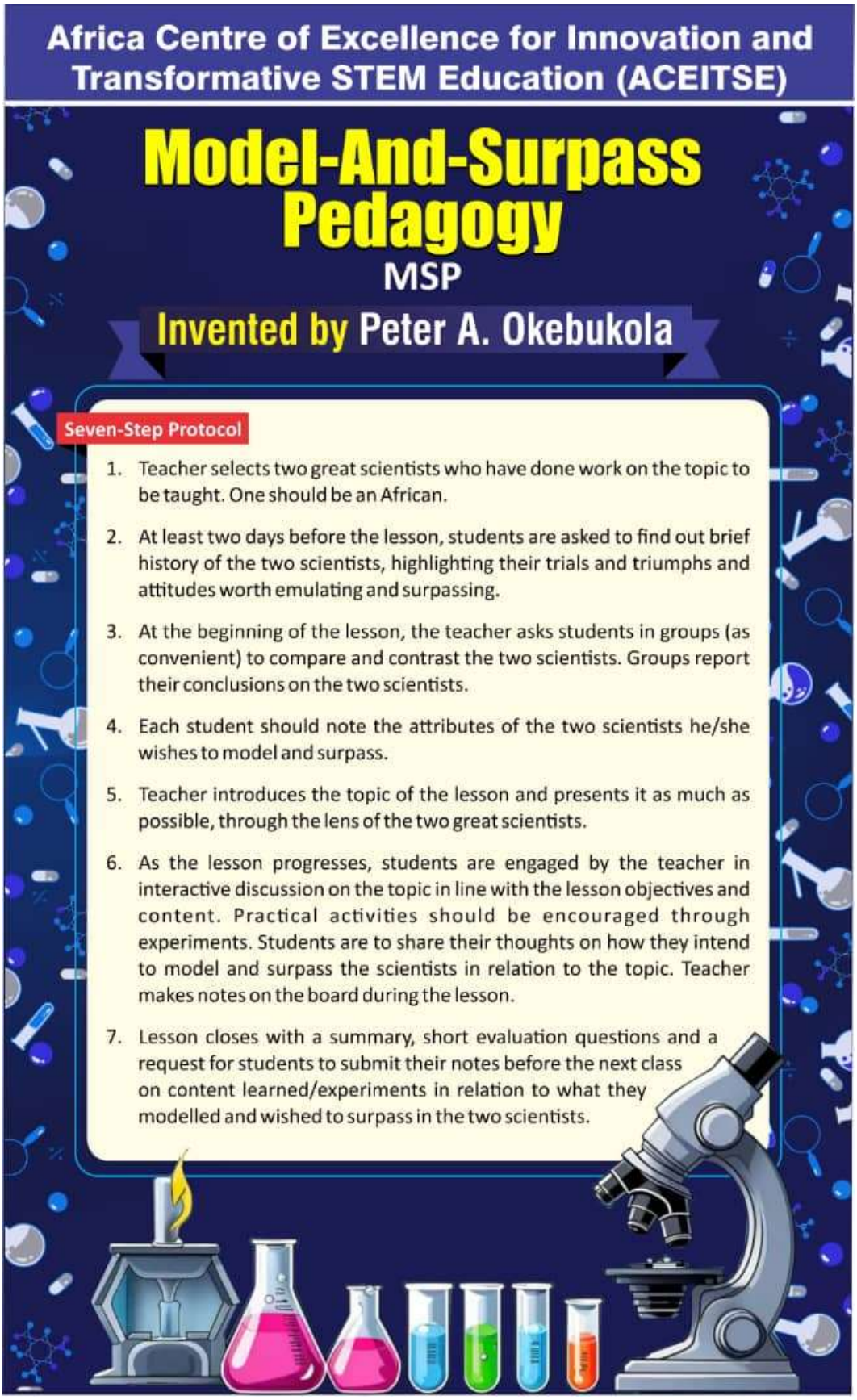
Okebukola went further "It should be recalled that in 2015 after over 40 years of research, I invented the Culturo-Techno-Contextual Approach (CTCA) and developed the Okebukola Eco-Techno Cultural Theory. In the last ten years, CTCA has gained global prominence and is now in use in many African countries and several countries in Asia, Europe and North America. Its efficacy in improving students' performance in science and non-science subjects has been confirmed by numerous studies. The second method I just developed is the Model-And-Surpass Pedagogy (MSP). This is based on the framework of students modelling great scientists and striving to surpass them. The logic is that by striving to model the great scientist and implement a work plan to surpass such scientist, the student will learn the way of the scientist and work towards achieving greater heights. When there is a will, there is a way. The outcome is predicted to be improved achievement and better attitude to STEM."

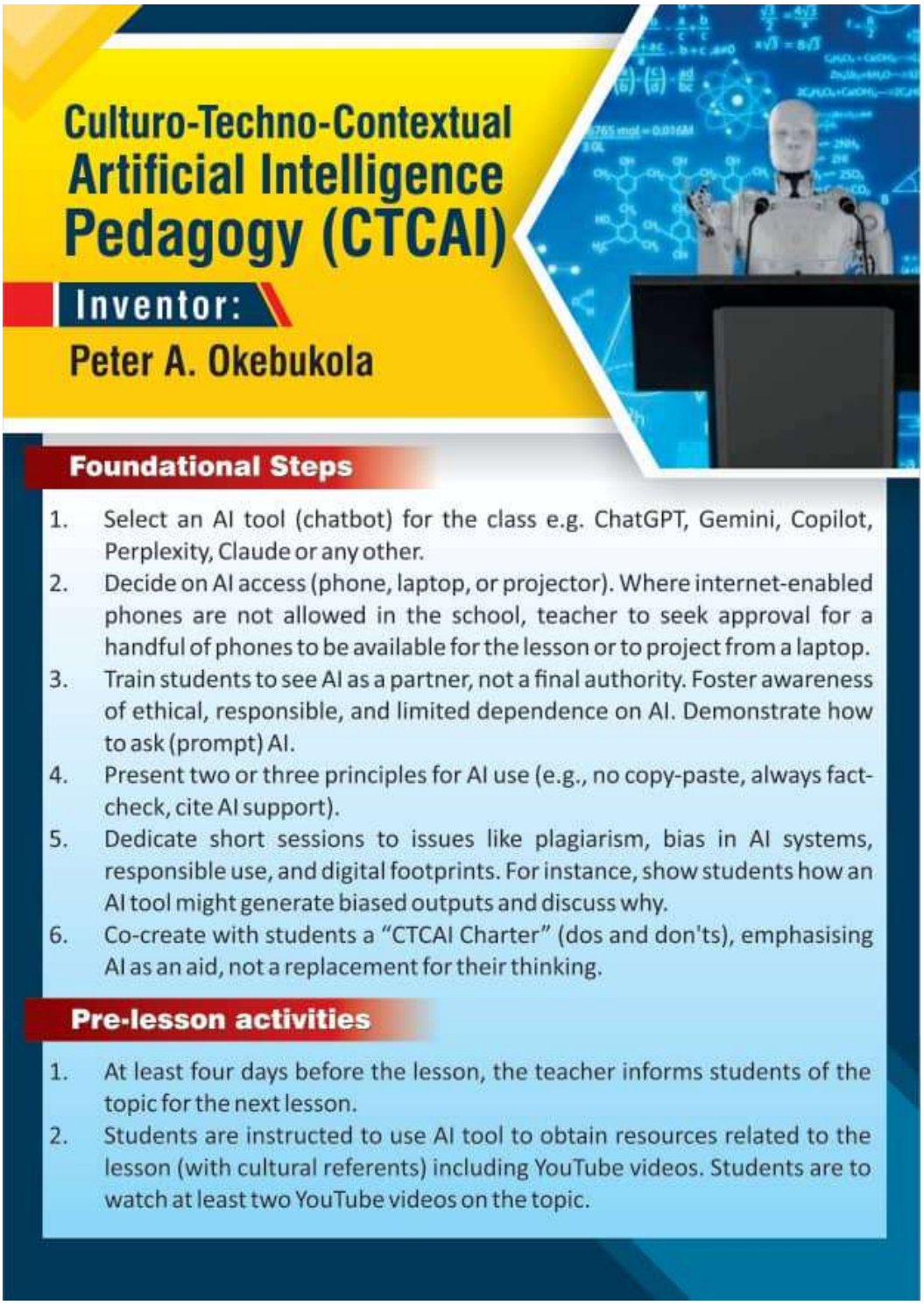
The Okebukola's MSP has seven steps: (1) Teacher selects two great scientists who have done work on the topic to be taught. One should be an African; (2) At least two days before the lesson, students are asked to find out brief history of the two scientists, highlighting their trials and triumphs and attitudes worth emulating and surpassing; (3) At the beginning of the lesson, the teacher asks students in groups (as convenient) to compare and contrast the two scientists. Groups report their conclusions on the two scientists; (4) Each student should note the attributes of the two scientists he/she wishes to model and surpass; (5) Teacher introduces the topic of the lesson and presents it as much as possible, through the lens of the two great scientists; (6) As the lesson progresses, students are engaged by the teacher in interactive discussion on the topic in line with the lesson objectives and content. Practical activities should be encouraged through experiments. Students are to share their thoughts on how they intend to model and surpass the scientists in relation to the topic. Teacher makes notes on the board during the lesson; and (7) Lesson closes with a summary, short evaluation questions and a request for students to submit their notes before the next class on content learned/experiments in relation to what they modelled and wished to surpass in the two scientists.

When asked by reporters about next steps, Okebukola noted "Work has started in earnest to test MSP. A team of researchers from four African countries (Nigeria, Ghana, The Gambia and Sierra Leone) from the Africa Centre of Excellence for Innovative and Transformative STEM Education (ACEITSE) of Lagos State University are initiating a series of studies to test the efficacy of the pedagogy. The goal is to ensure that MSP contributes to the attainment of the African Union's Agenda 2063- *The Africa We Want*. The days of Africa playing second fiddle in STEM enterprise will soon be over".

Speaking further, Okebukola said "this is not the last bus stop in our quest for homegrown methods of teaching. As the founder of the National Association of Artificial Intelligence Practitioners (NAAIP), I am leading a team of researchers including Dr. Adekunle Ibrahim Oladejo, Dr. Franklin Onowugbeda, Dr. Olasunkanmi Gbeleyi, Dr. Deborah Agbanimu and Dr. Esther Peter to work with Professor Eyitope Ogunbodede (President of NAAIP) to develop a teaching approach that rests on AI framework. This will immerse the use of AI within the African socio-cultural context. I assure you, the coming years will be exciting for Nigerian, indeed African students and teachers at all levels".




Africa Centre of Excellence for Innovation and Transformative STEM Education (ACEITSE)
Model-And-Surpass Pedagogy
MSP
Invented by Peter A. Okebukola
Seven-Step Protocol
1. Teacher selects two great scientists who have done work on the topic to be taught. One should be an African.
2. At least two days before the lesson, students are asked to find out brief history of the two scientists, highlighting their trials and triumphs and attitudes worth emulating and surpassing.
3. At the beginning of the lesson, the teacher asks students in groups (as convenient) to compare and contrast the two scientists. Groups report their conclusions on the two scientists.
4. Each student should note the attributes of the two scientists he/she wishes to model and surpass.
5. Teacher introduces the topic of the lesson and presents it as much as possible, through the lens of the two great scientists.
6. As the lesson progresses, students are engaged by the teacher in interactive discussion on the topic in line with the lesson objectives and content. Practical activities should be encouraged through experiments. Students are to share their thoughts on how they intend to model and surpass the scientists in relation to the topic. Teacher makes notes on the board during the lesson.
7. Lesson closes with a summary, short evaluation questions and a request for students to submit their notes before the next class on content learned/experiments in relation to what they modelled and wished to surpass in the two scientists.


Culturo-Techno-Contextual
Artificial Intelligence
Pedagogy (CTCAI)
Inventor:
Peter A. Okebukola
Foundational Steps
1. Select an AI tool (chatbot) for the class e.g. ChatGPT, Gemini, Copilot, Perplexity, Claude or any other.
2. Decide on AI access (phone, laptop, or projector). Where internet-enabled phones are not allowed in the school, teacher to seek approval for a handful of phones to be available for the lesson or to project from a laptop.
3. Train students to see AI as a partner, not a final authority. Foster awareness of ethical, responsible, and limited dependence on AI. Demonstrate how to ask (prompt) AI.
4. Present two or three principles for AI use (e.g., no copy-paste, always fact-check, cite AI support).
5. Dedicate short sessions to issues like plagiarism, bias in AI systems, responsible use, and digital footprints. For instance, show students how an AI tool might generate biased outputs and discuss why.
6. Co-create with students a "CTCAI Charter" (dos and don'ts), emphasising AI as an aid, not a replacement for their thinking.
Pre-lesson activities
1. At least four days before the lesson, the teacher informs students of the topic for the next lesson.
2. Students are instructed to use AI tool to obtain resources related to the lesson (with cultural referents) including YouTube videos. Students are to watch at least two YouTube videos on the topic.

S

The lesson

Cultural and Content Foundation (35 minutes)

To connect the lesson to students' cultural roots/experiences and content knowledge on the topic.

1. Teacher begins the lesson with a local proverb, story, song or cultural practices about the topic.
2. Students break into manageable mixed-sex, mixed ability groups, to share content knowledge on the topic obtained from YouTube videos and other online resources and how the topic connects with their cultural contexts. Each group notes where AI helped. Groups to identify one weakness in the AI's suggestion and explain what AI contributed and what was their unique input.
3. Students take AI-generated content and "remix" it through their cultural lens, adding traditional knowledge and local context.
4. Group leaders report the summary from groups.

Content and Contextual Deepening (30 minutes)

5. Teacher progresses the class by deepening the presentations from the groups with his/her expert input on the topic.
6. Notes are made on the board which integrate summaries from the student groups and those of the teacher. The summaries should emphasise preventing blind acceptance of AI outputs and integration of the content into cultural/contextual realities of the students. The summaries should cover all the objectives of the lesson. The overall goal is to sharpen critical and creative thinking by interrogating AI outputs for credibility, accuracy, and bias.

Evaluation

7. Lesson closes with short evaluation questions and assignment for the next lesson.

Strategic Recommendations for Crawford University

It is now time to offer some recommendations for Crawford University. These will complement the recommendations of the following in the Crawford at 20 book which will be unveiled after this lecture:

- Reverend (Professor) Olusola Adesope, the Superintendent General of The Apostolic Faith Church Worldwide
- Reverend (Dr.) Isaac Adigun, Proprietor of Crawford University and District Superintendent, West and Central Africa (WeCA) District of The Apostolic Faith
- Ambassador James Olaleye, Chairman, Board of Trustees
- Professor Modupe Asokhia, immediate past Chairperson of Council
- Peter A. Okebukola, former Chairman Board of Trustees and former Chairman of Council
- Professor Solomon Makinde, new Vice-Chancellor
- Several Others

Academic and Pedagogical Reforms

1. Make training in digital pedagogy, AI-integrated teaching, and student engagement mandatory for all new and existing staff.
2. Create awards and grants for lecturers who develop innovative, tech-enhanced course modules.
3. Create a clear, forward-thinking policy on the responsible use of AI in academic work. Frame it as a tool to be mastered, like a calculator for the mind.
4. In selected departments (e.g., Computer Science, Mass Communication, Business Administration), design assessments that require students to use AI for initial drafts or research, but are graded on their critical evaluation, refinement, and personal synthesis of the AI's output.
5. Embed compulsory, non-credit modules across all levels on Critical Thinking, Digital Literacy and Ethics, Entrepreneurship, and Emotional Intelligence. These can be delivered intensively onsite or online.
6. Explore the use of the trilogy of pedagogies- CTCA, CTCAI and MSP in breaking barriers of students to learning difficult concepts.

Infrastructure and Digital Transformation

7. Make the campus a benchmark for reliability. Invest more on a hybrid power solution (Grid + Solar + Inverters) with a dedicated, high-bandwidth fibre internet connection. Reliable Wi-Fi must be ubiquitous and free, treated as a utility like water and light.
8. Fully leverage the Learning Management System. Mandate that all course materials, assignments, grading, and core communication happen through the LMS. This builds a digital-first habit in both staff and students.

Administrative and Policy Modernisation

9. Use student data from the LMS and administrative systems to identify at-risk students early, understand learning patterns, and make informed decisions about resource allocation.
10. Streamline all administrative processes such as course registration, fee payment, hostel allocation, and transcript requests into a single, user-friendly student portal mobile app.

Strategic Partnerships

11. Forge strong, formal partnerships with leading Nigerian and international tech companies, firms, and NGOs. This facilitates curriculum input, guest lectures, internships, and direct pipelines for graduate employment.
12. Create a dedicated, secure portal for parents to view their ward's academic progress (with student consent), fee statements, and important university announcements, fostering a partnership in the student's development.

Preserving and Leveraging Institutional Identity

13. Develop a flagship course, required for all students, that tackles the moral, ethical, and societal implications of AI, big data, and biotechnology from a Christian worldview. This makes the faith relevant to the challenges they will actually face.
14. Frame the entrepreneurial spirit not just as a path to wealth, but as a means to solve societal problems and create value—aligning with Christian principles of service.

By taking these proactive steps, Crawford University's management will not just be preparing for the future; they will be actively shaping it, creating a distinctive and highly valuable educational experience that stands out in the competitive Nigerian landscape.

A Word for the 2025 Graduating Class

My Dear Graduating Students, tomorrow is your day! Congratulations on reaching this important milestone in your life's journey. You stand tall as proud products of Crawford University - an institution that has nurtured your intellect, character, and faith. You have braved the challenges of rigorous academic pursuit, embraced discipline, and upheld the values that define our noble university.

As you step beyond the Crawford University gates into a world filled with both opportunities and uncertainties, remember that the true measure of your education lies not only in what you know, but in how you use that knowledge to serve humanity. Let integrity, diligence, and compassion be your lifelong companions. The world needs your light, your innovation, your courage, and your commitment to excellence.

Carry the Crawford spirit wherever you go. Shine as ambassadors of Christ, nation builders, and solutions to the challenges of your generation. May God's grace continue to order your steps, reward your labour, and make your story a lasting testimony of success and service. May the light of Christ continue to shine through you.

Congratulations once again, Class of 2025. The best is yet to come!

Concluding Remarks

Chancellor, Distinguished Ladies and Gentlemen,

In this lecture, the prophecy was rendered that brighter days lie ahead of the Nigerian university system. We took a look at the current state of university education and made a projection for the future.

The typical Nigerian university in 2035 will be a crucible of contrast: hyper-digital students navigating often under-resourced physical infrastructures. Their strengths will lie in agility, visual learning, and entrepreneurial pragmatism. The greatest challenge and opportunity for educators and parents will be to channel these nascent capacities into deep, critical, and ethical wisdom, ensuring that technological advancement is matched by a corresponding growth in human character and societal responsibility. Preparation must be intentional, collaborative, and begin immediately.

As we celebrate twenty years of Crawford University and look with hope and determination toward the next horizon, let us do so with this spiritual foundation firmly and unshakably established. Let righteousness be our compass, excellence our standard, faith our fuel, and divine glory our ultimate goal.

The new moon has risen. The next horizon is visible. The future beckons with unprecedented promise. But the journey from vision to reality, from promise to fulfilment, from potentiality to actuality, requires more than human wisdom and effort. It requires divine partnership, sustained by righteousness, empowered by faith, and directed by unwavering commitment to God's purposes.

Now, let us together explore that future, examining where we have been, assessing where we are, and envisioning where, by God's grace and our committed efforts, we shall arrive.

Thank you for your attention.

Peter A. Okebukola, OFR
November 4, 2025

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Brief Profile

Peter A. Okebukola is an emeritus professor of science and computer education at Lagos State University. He had his higher education at the University of Ibadan where he obtained his Bachelor's degree in 1973 followed by Master's and Ph.D degrees in Science Education in the same university. He had specialised training at the Massachusetts Institute of Technology (M.I.T.), and Harvard University. He specialises in science, computer and environmental education, cybersecurity and Artificial Intelligence. Between 1990 and 1991, he was Visiting Professor in one of Australia's leading universities- Curtin University of Technology, Perth.

He is a Fellow of the International Academy of Education and between 1998 and 2007 was the African Representative on the Executive Committee of the International Council of Associations for Science Education. He is a Fellow of the Science Association of Nigeria (SAN), Fellow and President of the Nigerian Association for Environmental Education and Fellow and past President of the Science Teachers Association of Nigeria (STAN). He is the Vice-Chairman of the Board of Trustees of the Commonwealth Association of Science, Technology and Mathematics Educators. He is the first African to win the UNESCO Kalinga Prize for the Communication and Popularisation of Science in 1992. He has won several international gold medals in science and computer education. He was concurrently the Chairman of Council/Chairman Board of Trustees of six Nigerian universities. His last post was the Chairman of Council of the National Open University of Nigeria (NOUN)- the largest university in Africa in terms of enrolment. He is currently the President of the Global University Network for Innovation (GUNI-Africa) and the Ambassador of the Association of African Universities with mandate for West Africa. He has been awarded a number of honorary D.Sc degrees. He is the recipient of the National Honour of the Officer of the Order of the Federal Republic- OFR. He was Executive Secretary of the National Universities Commission from 2001 to 2006. His tenure witnessed landmark reforms at bolstering quality in the Nigerian university system.

He has been involved in popularising science in Africa since 1986 and served as consultant to many African countries in popularising science especially among the youth and underserved communities, notably girls, nomads and rural dwellers.

From 2001 to 2004, he served as Director of the Virtual Institute for Higher Education Pedagogy (VIHEP). From 2004 to 2006, he was the Director of UNESCO's Virtual Institute for Higher Education in Africa (VIHEAF). He has served as lead facilitator to deliver online training to over 40,000 academics in 62 universities in Africa. He is currently the Director/Facilitator-General of the Virtual Institute for Capacity Building in Higher Education (VICBHE) which since 2018, has trained over 28,000 senior academics in core areas of

His research efforts have gravitated around five central themes - computers in education and e-learning, co-operative learning, metacognitive strategies in science education, environmental education, and eco-cultural influences on the learning of science and ICT concepts including Artificial Intelligence. These efforts have resulted in over 250 internationally published works and over 400 national and international conference presentations. He was Chairman of the US-based Advisory Council of the CHEA International Quality Group (CIQG) whose mandate is observatory of quality assurance of higher education across the world.

He is the inventor of the culturo-techno-contextual approach (CTCA) to science teaching and learning that is gaining global acclaim as a tool for breaking barriers to meaningful learning of difficult concepts in STEM. He also invented CTCAI and MSP as components of his trilogy of methodologies.