AUDA-NEPAD EDTECH POLICY INITIATIVE

Policy Framework for Advancing Standards-Based Vendor-Neutral Edtech in Africa

AUDA - NEPAD
AFRICAN UNION DEVELOPMENT AGENCY

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Acronyms

AUDA	African Union Development Agency
CNEPD	National Center for Distance Vocational Training
EKB	Egyptian Knowledge Bank
ICT	Information Communication Technology
ILO	International Labour Organization
MoBSE	Ministry of Basic and Secondary Education
MoET	Ministry of Education and Training
MoETE	Ministry of Education and Technical Education
OER	Open Educational Resources
NEPAD	New Partnership for Africa's Development
SDG	Sustainable Development Goals
STEM	Science, Technology, Engineering, and Mathematics
UNESCO	United Nations Educational, Scientific, and Cultural Organization
TEL	Technology-Enabled Learning
TVET	Technical and Vocational Education and Training

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1. Overview

This comprehensive research paper presents findings from the AUDA-NEPAD EdTech Policy Initiative, a Pan-African effort to foster an inclusive, scalable, and sustainable EdTech ecosystem across the continent. This final report captures a synopsis of the stakeholder engagement, which covered the three focus areas of the African Union Educational Technology Strategy and Implementation Plan of 2022, and a summary of the literature review on the AUDA-NEPAD EdTech Policy Initiative, covering 15 African countries, all in different stages of implementing their digital education frameworks.

1.1. Research Scope and Methodology

The initiative employed a comprehensive stakeholder engagement approach across 15 African countries representing all continental regions: Algeria, Cameroon, Congo Brazzaville, Egypt, Eswatini, Ethiopia, Gambia, Ghana, Kenya, Liberia, Malawi, Mauritius, Namibia, Somalia, South Africa, South Sudan, Tanzania, and Zambia. The research utilized multiple data collection methods, including:

Comprehensive survey questionnaires

- Comprehensive survey questionnaires targeting diverse stakeholder groups.

In-depth ministerial discussions

- In-depth ministerial discussions at major conferences (Innovation Africa Conference in Addis Ababa, April 2024; eLearning Africa 2025 in Dar es Salaam, May 2025).

Literature review and market analysis

- Literature review and market analysis of existing EdTech policies and implementations.

Stakeholder consultations

- Stakeholder consultations with governments, educators, private sector partners, and local innovators.

1.2. Key Findings: A Continent in Digital Transition

Policy Maturity Spectrum: The research reveals that African countries exist along a policy maturity spectrum with distinct categories:

- **Early Adopters:** Algeria and Egypt demonstrate comprehensive Information Communication Technology (ICT) frameworks with substantial government investment and established digital infrastructure.
- **Developing Frameworks:** Kenya, Ghana, and South Africa show strong policy foundations with active implementation efforts.
- **Emerging Adopters:** Nations including Somalia, Liberia, and Eswatini are developing foundational EdTech policies and strategies

1.3. Critical Implementation Gaps

Despite policy development, significant implementation challenges persist. These include:

- **Infrastructure Deficits:** The average broadband penetration across Africa is only 37%, with countries like Zambia (0.4%) and Liberia (0.3%) showing particularly low connectivity.
- **Digital Divide:** Stark rural-urban disparities in technology access and connectivity.
- **Capacity Constraints:** Insufficient teacher digital literacy programs, with most educators lacking pedagogical integration skills.
- **Funding Limitations:** Most countries allocate less than 20% of education budgets to technology initiatives.

The stakeholder consultation process revealed four critical focus areas:

- **Inclusivity:** Ensuring EdTech solutions reach marginalized and underserved communities.
- **Local Innovation:** Empowering indigenous developers to create Africa-specific educational solutions.
- **Policy Harmonization:** Developing interoperable frameworks to support cross-border collaboration.
- **Capacity Building:** Systematic educator training and professional development programs.

Infrastructure Deficits

~ 37%

broadband penetration across Africa

Funding Limitations

< 20%

education budget allocated to tech intiatives

1.4. Recommendations and Strategic Imperatives

The research identifies five strategic imperatives for advancing EdTech across Africa:

1. **Infrastructure First:** Accelerated broadband expansion through public-private partnerships
2. **Teacher Empowerment:** Comprehensive professional development beyond basic digital literacy
3. **Policy Harmonization:** Alignment with AU frameworks and vendor-neutral standards
4. **Equity and Inclusion:** Targeted interventions for marginalized communities with multilingual content
5. **Sustainable Financing:** Clear budget allocations targeting 20% of education budgets for EdTech

2. Stakeholder Engagement Questionnaire

This section presents responses from the questionnaires administered in various countries, as shown in the tables below:

Table 1: Country Responses (Q1-Q7)

Country	Q1 - EdTech Policy Framework Status	Q2 - Stakeholder Feedback Mechanisms	Q3 - Policy Document Accessibility	Q4 - Policy Framework Improvements	Q5 - Ministry Vision for EdTech Integration	Q6 - EdTech Can Enhance Learning Outcomes	Q7 - Innovative EdTech Solutions
Algeria	Aims to modernize the education sector through national digital platforms and compulsory ICT instruction	Mechanisms are developing, with centralized policy direction and opportunities for expanded, structured educator input.	Available through Ministry of Education websites, with opportunities for wider publication.	It would be beneficial to localize content, promote bilingual (Arabic/Tamazight) e-learning tools, and expand rural outreach.	To modernize the education sector through national digital platforms and systematic ICT instruction	EdTech can enhance learning outcomes, particularly in STEM and higher education, where e-learning platforms are widely used.	Key initiatives include digital libraries, online exams, and STEM labs in secondary schools.
Egypt	Egypt's Education 2.0 reform and the Egyptian Knowledge Bank (EKB) are central to its national digital learning strategy	Feedback mechanisms run through national platforms, teacher councils, and ministry portals.	Freely accessible via the Ministry of Education, EKB, and associated e-learning portals.	Expanding rural coverage, creating local Arabic content, and better integrating feedback mechanisms would strengthen the framework.	To digitize all K–12 and university education using AI, cloud services, and mobile devices.	Performance metrics show EdTech supports STEM outcomes and digital engagement	EKB, interactive books, digital assessments, and cloud-based school management tools
Ethiopia	Policies focus on distance learning, radio education, and digital resilience	There are mechanisms for stakeholder feedback, primarily during national strategy reviews or donor coordination events	Availability varies, with opportunities for improved consistency.	Enhanced coordination between federal and regional education offices, expanded rural ICT infrastructure, and targeted funding for EdTech training would be beneficial.	The Ministry envisions a digitally inclusive education system that uses mobile, radio, and TV platforms to enhance learning in both formal and informal settings.	EdTech has been valuable in bridging educational gaps during COVID-19 through televised and radio content.	The 'SchoolNet' program provides satellite-based education and invests in TVET content distributed through national broadcasting.

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Ghana	The educational policy incorporates digital technology from basic school by teaching computing from class 4 (Grade 4).	Consultative processes with teacher unions, ICT units, and local NGOs are routine.	Policies and digital platforms (e.g., iCampusGH) are accessible online and easily accessible to the public.	Increasing bandwidth to rural schools, incentivizing local EdTech development, and expanding monitoring would enhance the system.	To create a blended and resilient education system that adapts to emerging technology.	Yes, especially addressing urban-rural education quality differences, improving teaching, and learning processes for learners and teachers.	Ghana Learning TV, iCampusGH, and interactive WhatsApp-based learning tools.
Kenya	It supports e-learning, coding, and the distribution of digital devices. A national policy framework addresses access to education.	The Ministry uses structured feedback systems, including workshops and pilot reviews with stakeholders and partners.	Key documents are publicly available via the Ministry of Education, the Ministry of Information Communication Technology (ICT), the Digital Economy, and the ICT Authority websites.	Expanding rural infrastructure, improving content localization, and providing sustainable device support would strengthen the framework.	To digitize all learning spaces and improve learner access to e-content and tools nationally	Yes, teacher support can be improved through digital tools and CBC training, and student engagement can be increased via interactive content.	Successfully implemented several educational technology solutions (Tablets to over 22,000 schools, VTabu Virtual, Eneza Education Digital School Platform (DSP), radio instruction during COVID-19, and ICT labs in some school libraries)
Liberia	EdTech is integrated into primary and secondary education, focusing on infrastructure, teacher training, and digital content.	Feedback mechanisms are developing through enhanced school-level monitoring and development partner feedback loops.	Some policy documents are available online via the Ministry of Education, and work is ongoing to improve consistency in disseminati-on.	Strengthening broadband rollout, developing national EdTech standards, and ensuring coordinated data systems would improve the framework.	To create a resilient, technology-enhanced education system with fair access through ICT-enabled classrooms	Enhance learning outcomes, especially during emergencies, and expand access to remote learners.	Digital School Platform (DSP), radio instruction during COVID-19, and ICT labs in some schools.

Country	Q1 - EdTech Policy Framework Status	Q2 - Stakeholder Feedback Mechanisms	Q3 - Policy Document Accessibility	Q4 - Policy Framework Improvements	Q5 - Ministry Vision for EdTech Integration	Q6 - EdTech Can Enhance Learning Outcomes	Q7 - Innovative EdTech Solutions
Mauritius	Existing initiatives like the Early Digital Learning Program and the Saint-court project prove the governmen-t's commitmen t to integrating technology.	A recent public consultatio n generated over 500 suggestion s, showing strong active participati-on	Policy documents are available through the ministry's website, and circulars through schools and Education Directorates https://educa tion.govmu.o rg	Creating a formal national EdTech policy, improving teacher training, and ensuring better internet connectivi -ty in schools	To modernize classrooms and support special education through assistive technologi es, focusing on the digitalizati-on of teaching and learning.	Supports inclusive education and better prepares students for digital futures	The Early Digital Learning Program (EDLP), interactive projectors, tablets for primary students, and electronic braille devices for visually impaired learners
Republic of Congo	The Republic of Congo has initiated steps toward integrating ICT into education, including the 'Congo Digital 2025' strategy and digital labs via UNICEF and Airtel.	Mechanism s are emerging via internation al partnership s; national feedback systems continue to develop.	Some documents are available online (e.g., Congo Digital 2025), and work is ongoing to improve rural access, taking into account connectivity and access costs.	Developin g a comprehe nsive EdTech policy, improving infrastruct ure, and providing educator training would strength-en the framewo-rk.	To modernize education through digital tools and align with global standards.	Enhance learning outcomes through improved interactivi-ty, accessibili-ty, and support for underserve d areas	Digital labs through UNICEF-Airtel, TV and radio lessons during the COVID-19 response under Global Partners in Education (GPE)
Somalia	Somalia's policy landscape includes efforts to integrate ICT in education under its Education Sector Strategic Plan	Feedback loops exist through NGO program evaluations and donor engageme nt, with potential for systematic governme-nt channels.	Infrastructu-re challenges affect the consistent online availability of government documents.	Improving public access to policy tools would strength-en the framewo-rk	To provide inclusive, conflict-resilient education using mobile platforms, radio, and offline digital tools	During crisis, Somalia can leverage mobile apps and radio to ensure continuity of learning.	Radio-based schooling, mobile learning via partnershi-ps with EdTech startups, and NGO-supported offline learning kits

Country	Q1 - EdTech Policy Framework Status	Q2 - Stakeholder Feedback Mechanisms	Q3 - Policy Document Accessibility	Q4 - Policy Framework Improvements	Q5 - Ministry Vision for EdTech Integration	Q6 - EdTech Can Enhance Learning Outcomes	Q7 - Innovative EdTech Solutions
South Africa	A new education framework, launched in 2024, addresses digital technologies such as Tablets, AI, mobile learning, virtual learning, coding, and robotics.	Policies exist in principle, with implementation of oversight being strengthened.	In South Africa, most policies are readily available online	Policies should be dynamic, responsive, and supported by adequate budgets	Respond to and prepare for future events like COVID-19, to implement synchronous, asynchronous, and blended learning environments.	Bridging the digital divide, addressing content gaps created during lockdown periods	The Ligbron eLearning project serves as an example
South Sudan	It integrates ICT in education via the General Education Strategic Plan, with plans to create a dedicated EdTech policy as resources become available.	Feedback mechanisms are currently informal, primarily through donor-led education programs.	Access to official documents is limited outside Juba due to connectivity and dissemination challenges.	Developing a national EdTech policy, localizing digital curriculum, and building digital infrastructure would be beneficial	To use radio and mobile tools to support learning continuity in challenging settings.	Can enhance learning outcomes, particularly for displaced learners and nomadic communities.	Education Radio, solar-powered learning kits, and community-based mobile learning hubs. Offline e-learning was implemented in some schools as a pilot phase with positive results; learners performed well in national exams
Zambia	Zambia's education system incorporates EdTech through national digital learning initiatives such as the Smart Zambia project.	Stakeholder engagement occurs via formal and informal platforms with opportunities for increased inclusivity.	Some policies are available online via government websites, with regional access varying.	Improvements include stronger infrastructure, teacher training, and policy coordination	The vision involves comprehensive integration of digital tools from primary to tertiary education	Pilot studies demonstrate improved learner engagement through EdTech.	Examples include digital classrooms supported by UNICEF and mobile learning apps. Some schools also use data projectors, interactive whiteboards, and interactive touchscreens.

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Eswatini	The policy advocates for the inclusion of ICT subjects in all schools, facilitating blended teaching/learning, and managing and administering schools that use ICT tools in the education and training system.	Work is underway to establish mechanisms for stakeholder feedback	Policy documents are readily accessible through the Government's website. www.gov.sz/index.php/education-policies.	Developing a standalone EdTech policy would help provide direction on educational technology in the education system.	To develop policies and ensure that children's rights are respected, to reduce socio-economic inequalities, and to improve the overall quality of the education system.	Helps in simplifying some concepts for students during lesson delivery by teachers	The use of data projectors, interactive white boards, and interactive touchscreens in some schools.
Cameroon	Made progress through COVID-19 distance learning centers by the Ministry of Secondary Education, and enacted a 2022 ICT Policy and Strategy Document promoting equitable educational access via digital technologies	There is an opportunity to develop specific meetings or workshops focused on EdTech policy and strategy, especially in technical and vocational training.	Policy documents are available online https://apprendre.auf.org/wp-content/uploads/2023/02/Politique-des-TIC-et-Cadre-Strategique-pour-leducation-de-base-au-Cameroun.pdf.	Creating a unified policy framework that ensures equitable access for all learners would be valuable.	Integrating technology into training curricula with support from partners like UNESCO	Can improve access to learning resources like the distance learning center in the Ministry of Secondary Education, which enables asynchronous lessons	A project has been introduced in the basic education sub-sector with UNICEF entitled "Connect to My School" and is working well. The primary example is the distance learning center established by the Ministry of Secondary Education during COVID-19

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Malawi	Malawi emphasizes foundational learning through mobile and offline digital education. Policies are evolving to include EdTech more prominently.	Feedback is collected via program-based evaluations. The national consultati-on system is under developme-nt.	Documents are hosted on the Ministry of Education website, and work is ongoing to address access challenges for rural stakeholders.	Introduci-ng structured digital education goals in national strategies and expanding rural infrastruct ure would be valuable	Seeks to use mobile learning for foundation al literacy and numeracy in resource-constrained schools.	EdTech can enhance learning outcomes. Mobile tools and interactive radio have demonstra ted significant engagem-ent improveme nts	Interactive radio instruction, offline learning tablets, and NGO-led reading apps have been effective.
Tanzania	A national policy framework addresses access to education, and work is ongoing to address infrastructu-re gaps in some regions.	Stakeholder consultatio-ns are embedded in strategy reviews and digital training forums.	Policy documents are publicly available via the Ministry of Education and the ICT Authority websites.	Setting national standards for EdTech infrastruc-ture, and increasing investme-nt in teacher training and localized digital content developm ent	By expanding connectivi-ty, producing relevant digital content, and promoting e-learning as part of the broader "Digital Tanzania" strategy	Pilot initiatives show improvem-ents in science learning through multimedia tutorials, reports of better student engageme nt with interactive content such as videos and animations	Uses tools like Kahoot, Quizizz, and Mtabe at the pre-tertiary level, the Tanzania Institute of Education is producing tutorial videos for science topics

Table 2: Country Responses (Q8-Q11)

Country	Q8 - Ministry Collaboration with Partners	Q9 - Main Implementation Barriers	Q10 - Language Barriers Significance	Q11 - Educator Training Program Sufficiency
Algeria	Collaborates with Francophone networks, ALECSO, and international university consortia.	Limited electricity access, device availability challenges, insufficient localized content, and regional variations in teacher readiness.	Arabic and French are predominant; local Tamazight content opportunities exist.	Training is available at secondary and tertiary levels, with development opportunities for primary teacher training.
Egypt	Partners with Microsoft, USAID, World Bank, and Huawei for capacity building and e-platform development.	Urban-rural connectivity expansion needs, teacher engagement enhancement in ICT use, and policy coordination opportunities.	Arabic is used extensively in EdTech resources, reducing barriers.	National digital training is part of both pre-service and in-service programs.
Ethiopia	UNICEF, UNESCO, and the World Bank are key partners supporting teacher training, content development, and infrastructure deployment.	Limited electricity access, device availability challenges, insufficient localized content, and regional variations in teacher readiness.	Ethiopia's linguistic diversity requires EdTech solutions in multiple local languages, while many tools are currently available primarily in English.	Training exists, though it could be more systematic and sustainable. Most teachers would benefit from enhanced hands-on ICT pedagogical skills.
Ghana	Strong collaboration with GES, UNICEF, World Bank, and telecoms supports platforms and teacher development.	Teacher skills, technology tool affordability, connectivity expansion, and Funding adequacy.	Instruction often involves both English and local languages.	Training programs are expanding with opportunities for broader reach and consistency.
Kenya	Partnerships with UNESCO, the World Bank, and private tech firms help scale training and device delivery.	Teacher readiness development, device maintenance, infrastructure needs in arid and semi-arid regions, and funding.	Most EdTech tools are offered in English and Kiswahili, the main languages of instruction.	Pre-service and in-service digital literacy training exists under the Teacher Service Commission (TSC). Training is arranged by various institutions under the Ministry through Universities and other State training bodies.
Liberia	Works with World Bank, UNICEF, and GPE on policy implementation, infrastructure, and content.	Infrastructure development, teacher capacity building, and funding considerations.	Localized content in Liberian English and local dialects would be beneficial.	Training availability could be enhanced, with opportunities to expand beyond basic digital literacy to pedagogical integration.

Country	Q8 - Ministry Collaboration with Partners	Q9 - Main Implementation Barriers	Q10 - Language Barriers Significance	Q11 - Educator Training Program Sufficiency
Republic of Congo	Collaborates with UNICEF, Airtel, and GPE for resources and teacher training.	Internet expansion needs, teacher training development, and infrastructure enhancement requirements.	French is widely used, though local language content could enhance inclusivity.	Some training occurs via international partners with opportunities for expansion and consistency.
Somalia	Partnerships with UNICEF and Save the Children for implementation, funding, and monitoring.	Security challenges, governance coordination needs, infrastructure development requirements, and teacher capacity building needs.	Content localization in Somali and Arabic is needed, while international tools are often English-based.	Limited formal programs exist. NGOs provide periodic digital training.
South Africa	National Education Collaboration Trust works to enhance coordination and boost the impact of programs focused on educational quality improvement.	funding adequacy, teacher development, connectivity enhancement, security, and digital content.	Minimal language considerations in EdTech tool adoption.	Training program expansion opportunities exist, considering teachers' time commitments and connectivity needs for virtual workshops. Teacher knowledge development and school device availability are priorities.
South Sudan	Collaboration with UNICEF, Save the Children, and GPE ensures resource delivery and teacher training.	Power infrastructure, internet connectivity, displacement situations, trained ICT teacher availability, and funding.	English is the language of instruction, while local languages are often preferred.	Training opportunities are currently limited. Most training occurs through NGO programs.
Zambia	UNICEF, VVOB, and NGOs support training, infrastructure.	connectivity challenges, device costs, and teacher preparedness development needs.	English is predominant, with local language tools emerging.	Training exists with opportunities for more consistent national-scale implementation.
Eswatini	UNICEF, UNESCO, and the World Bank are key partners supporting teacher training, content development, and infrastructure deployment.	Funding.	Language considerations in EdTech tool adoption are minimal.	Training opportunities exist primarily through pre-service programs, with opportunities for practicing educator programs.

Table 3: Country Responses (Q12-Q17)

Country	Q12 - Internet Access Impact	Q13 - Socioeconomic Disparity Role	Q14 - Stakeholder Consultation Frequency	Q15 - Effective Engagement Platforms	Q16 - Grassroots Governance Support	Q17 - AUDA-NEPAD Collaboration Strategies
Algeria	Rural area connectivity affects the reach of online platforms and digital testing.	Urban areas have strong infrastructure while rural learners face access challenges.	Consultations occur periodically, primarily within Ministry circles or in pilot projects. Stakeholders are consulted during policy formulation and implementation processes	University forums and education research events serve as key platforms.	School administrators and regional inspectors help implement digital policies locally.	Fund local language platforms, promote North African EdTech exchanges, and support community ICT hubs.
Egypt	Internet and device access gaps persist in Upper Egypt and remote desert regions.	Urban learners have good access, while marginalized regions require additional support	Consultations are embedded in strategy reviews and digital training forums. Stakeholders are consulted during policy formulation and implementation processes.	Stakeholder surveys and digital polling through student-parent apps.	School heads and community education councils ensure local alignment with Education 2.0 goals.	Share the EKB model across Africa, organize regional bootcamps, and support Arabic EdTech innovation.
Ethiopia	Connectivity challenges limit digital learning tools.	Most EdTech delivery currently depends on offline methods such as radio and television.	Stakeholder consultation during policy formulation occurs primarily during national strategy reviews or donor coordination events. Broader teacher and parent involvement opportunities exist.	Workshops, donor roundtables, and sector review meetings.	Local education bureaus and community ICT centers can support teacher training and distribute offline content.	Develop regional EdTech working groups, fund pilot projects, and integrate local actors into AU-level planning.

Country	Q12 - Internet Access Impact	Q13 - Socioeconomic Disparity Role	Q14 - Stakeholder Consultation Frequency	Q15 - Effective Engagement Platforms	Q16 - Grassroots Governance Support	Q17 - AUDA-NEPAD Collaboration Strategies
Liberia	Limited connectivity affects access to online learning content and platforms.	A strong correlation exists between economic conditions and access to technology and connectivity.	Consultation and sensitization approaches are used. Public participation forums occur before policy enactment.	Workshops and community meetings are effective platforms.	County education offices and school-level committees support implementation and maintenance.	Create a national EdTech task force, support local pilot projects, and leverage AUDA-NEPAD networks for capacity building.
Mauritius	Connectivity presents significant challenges.	Many disadvantaged students lack reliable internet access and essential digital literacy skills for effective online learning participation.	Stakeholders are actively consulted during key policy formulation stages through public consultations. Regular stakeholder engagement occurs throughout policy formulation and implementation processes.	Surveys, focus groups, and workshops are employed.	Regional Directorates and Education Stakeholders facilitate grassroots engagements.	Establish a national EdTech working group, including educators, parents, regional officers, and tech experts, coordinated with AUDA-NEPAD for policy co-creation and local adaptation.
Republic of Congo	Internet access gaps, especially in rural areas, affect digital learning access.	Socioeconomic inequality affects access to devices and internet in rural areas.	Consultations primarily occur through donor programs; formal mechanisms continue to develop.	Workshops and NGO partnerships are currently effective engagement platforms.	Local governments facilitate implementation, monitor progress, and provide guidance on adjustments.	Build formal feedback channels, provide local training, and share regional EdTech best practices.
Somalia	Most rural schools face connectivity challenges. Education delivery depends on offline or radio solutions.	Substantial socioeconomic considerations affect EdTech access. Wealthier urban areas have some EdTech access, while rural regions face access challenges.	Stakeholder consultation during policy formulation varies in consistency. Decisions are often centralized or partner-led.	Donor coordination meetings and emergency education task forces.	Community radio, mosque-based learning centers, and school management committees can help distribute content. Local education offices and community leaders facilitate implementation and monitoring.	Involve local educators in policy trials, build local tech capacity, and support secure infrastructure deployment.

Country	Q12 - Internet Access Impact	Q13 - Socioeconomic Disparity Role	Q14 - Stakeholder Consultation Frequency	Q15 - Effective Engagement Platforms	Q16 - Grassroots Governance Support	Q17 - AUDA-NEPAD Collaboration Strategies
South Africa	Connectivity presents significant challenges.	Socioeconomic disparity presents significant challenges.	Stakeholder engagement occurs with varying frequency, sometimes beginning at the implementation stage. Feedback mechanisms are available for raising concerns.	Workshops are common platforms.	Municipalities, Regional Directorates, and Education Stakeholders ease grassroots engagement.	Involvement during the start phase would support policy or project ownership.
South Sudan	Limited internet in most rural areas; solar-powered kits and radio remain primary tools.	Socioeconomic disparity presents significant challenges.	Consultations typically occur through emergency education clusters. Policy development is ongoing.	Radio call-in programs and UNICEF-led community feedback sessions, focus groups, and workshops are employed.	Local chiefs and humanitarian partners play essential roles in education logistics. Municipalities, Regional Directorates, and Education Stakeholders facilitate grassroots engagement.	The fund should be accessible to EdTech pilots, support community teacher trainers, and integrate EdTech into peacebuilding. It would also benefit from EdTech policy development and professional development to empower teachers.
Zambia	Limited connectivity affects rural access to online learning platforms.	Socioeconomic disparity presents access challenges in rural areas.	Stakeholder consultation during policy formulation shows improvement, though formal mechanisms continue developing.	Workshops and surveys are common platforms.	Local education offices help with infrastructure and training. Regional directorates and municipalities facilitate education of stakeholder-driven grassroots engagement.	Coordinate national EdTech strategies and support local pilots. Capacity building and funding support would be beneficial.Engaging in the office of the Principal Secretary of the Ministry of Education and other partners interested in education.

Country	Q12 - Internet Access Impact	Q13 - Socioeconomic Disparity Role	Q14 - Stakeholder Consultation Frequency	Q15 - Effective Engagement Platforms	Q16 - Grassroots Governance Support	Q17 - AUDA-NEPAD Collaboration Strategies
Eswatini	Connectivity presents significant challenges	Socioeconomic disparities significantly affect EdTech access.	Relevant stakeholders are consulted during policy formulation, though not always specifically on EdTech issues	Focus groups and workshops are employed.	Regional Directorates and Education Stakeholders facilitate grassroots engagements.	Engaging the Office of the Principal Secretary of the Ministry of Education and other partners interested in education.
Cameroon	Limited connectivity presents challenges, especially for online platforms.	Socioeconomic disparity, particularly between urban and rural areas, presents significant challenges.	Consultation occurs periodically. Opportunities exist to develop formal mechanisms for EdTech issues	Workshops and focus groups have proven effective.	Regional education directorates and local communities can support infrastructure maintenance and teacher support.	Organize regular national and regional workshops on EdTech integration. Facilitate stakeholder-specific meetings focusing on technical and vocational training. Implement pilot projects with active stakeholder involvement. Strengthen capacity building for local actors in the education sector. Collaborate with international organizations like UNESCO and the Commonwealth of Learning.

Country	Q12 - Internet Access Impact	Q13 - Socioeconomic Disparity Role	Q14 - Stakeholder Consultation Frequency	Q15 - Effective Engagement Platforms	Q16 - Grassroots Governance Support	Q17 - AUDA-NEPAD Collaboration Strategies
Tanzania	Connectivity challenges affect access to online learning platforms and digital content.	Socioeconomic disparities present significant challenges, especially in rural and lower-income areas. Urban-rural income differences correlate with school ICT access and student device ownership.	Consultations are embedded in strategy reviews and digital training forums	Stakeholder surveys and digital polling through student-parent apps. Surveys and ICT workshops are commonly used for feedback.	Local ICT committees and regional education offices guide rollout and monitor usage. Regional education directorates assist in monitoring implementation and providing localized support.	Scale rural EdTech trials, support innovation hubs, and build cross-border teacher networks. Develop regional EdTech working groups, fund pilot projects, and integrate local actors into AU-level planning.
Malawi	Connectivity presents challenges, limiting access to online resources and platforms.	Socioeconomic disparities affect EdTech access significantly, influencing device ownership and internet access for marginalized students.	Relevant stakeholders are consulted during policy formulation, though not always specifically on EdTech issues.	Workshops and program-specific consultations.	Local education offices and community committees can support infrastructure deployment and teacher training.	Establish regional learning networks, support local innovation hubs, and facilitate peer-to-peer learning among educators.

3. Literature Review Summary

This document presents "The Kimotho Project (Phase 1)" - a comprehensive policy framework for advancing standards-based, vendor-neutral EdTech in Africa, conducted by AUDA-NEPAD's EdTech Policy Initiative.

3.1. Key Findings

Current State: The document analyzes EdTech policies across 13 African countries (representing all regions), finding varying levels of implementation. Countries like Algeria and Egypt are early adopters with better internet connectivity, while Liberia, Malawi, Eswatini, and Somalia are late adopters.

3.2. Major Challenges

- Limited broadband penetration (37% across Africa)
- Insufficient budget allocation (most countries spend <20% on education
- Teacher digital literacy gaps, especially in public schools
- Poor infrastructure in rural areas
- Political instability affecting policy continuity

3.3. Key Policy Focus Areas

- Infrastructure development
- Digital literacy improvement
- Teacher training in ICT
- Access and equity for marginalized communities
- Mobile learning solutions
- Language localization
- Skills development alignment

3.4. Critical Observations

- Most countries have ICT policies but lack actionable implementation plans
- None of the studied countries have implemented the African Union Digital Education Strategy (2023-2028)
- Private sector engagement is poorly coordinated
- Vendor neutrality and open-source adoption is minimal

3.5. Recommendations

01 — Infrastructure
Expand broadband access through public-private partnerships

02 — Funding
Mandate a 20% budget allocation for education across AU member states

03 — Teacher Training
Comprehensive digital literacy programs for educators

04 — Standards
Adopt open-source technologies and vendor-neutral approaches

05 — Coordination
Implement the AU Digital Education Strategy at the national level

06 — Content
Develop localized, multilingual educational content

The document concludes that while progress exists, significant gaps remain in implementing cohesive EdTech policies that benefit public primary and secondary schools across Africa.

3.6. Success Factors

3.6.1. Non-Discrimination in EdTech Procurement

To accelerate the pace of innovation in African EdTech, each Member State shall adopt and enforce the following non-discrimination principle within its EdTech procurement and deployment processes:

1. Certified DPI-Compatible Courseware that was substantially developed in any Member State shall be treated without discrimination in national procurement decisions, regardless of the Member State(s) in which it was substantially developed;
2. This principle ensures equal access to market opportunities for developers of DPI-Compatible Courseware across the African Union and reflects a commitment to continental reciprocity, innovation, and equitable development;
3. This clause operationalizes the African Union's Treaty Establishing the African Economic Community (Abuja Treaty, 1991) and its commitment to the free movement of goods, services, and digital solutions across Member States;
4. It is further aligned with the African Continental Free Trade Area (AfCFTA) Protocol on Digital Trade (in development), which promotes non-discriminatory treatment of digital products and services originating from within the AU;
5. Exceptions to this principle shall only be permitted where a DPI-Compatible Courseware product demonstrably fails to meet local language, curriculum, or accessibility requirements, and where such exceptions are transparently documented and subject to appeal.

3.6.2. Federated Education Data Infrastructure

To promote evidence-based innovation respecting privacy, security, and sovereignty, each Member State shall:

1. Require that any Digital Public Infrastructure (DPI) for Mobile-Based Education used by said State shall generate fine-grained, personalized data ("Data") to inform Personalized Learning, Teaching at the Right Level, Structured Pedagogy, etc.;
2. Vest full ownership and control of all said Data with said State, consistent with principles of data sovereignty;
3. Federate said Data into a secure, continental-level research and benchmarking facility, designated by AUDA-NEPAD, de-personalizing said Data as necessary to meet relevant privacy laws;
4. Help address Africa's ongoing Education Emergency by ensuring that such federated Data shall be governed by binding intergovernmental agreements or memoranda of understanding, modeled on existing practices in health data sharing—specifically:
    a. The International Health Regulations (2005), which allow for country-controlled, real-time health data sharing during public health emergencies;
    b. The Health Data Collaborative and DHIS2 governance structures, which support national sovereignty while enabling global and regional aggregation for health system strengthening;
5. Align such data-sharing practices with the African Union Data Policy Framework (2022), which calls for regionally-coordinated, interoperable, and sovereign data ecosystems.

4. Country Status

The status of the implementation of EdTech in the various countries is given below:

4.1. Algeria

Algeria has maintained one of Africa's most comprehensive ICT in education policies since the early 2000s. The country's Ministry of National Education established a formal policy for integrating ICT into the school system, backed by a substantial government investment of 3 billion DZD in 2002 to equip schools with ICT infrastructure. This initiative resulted in every lycée (secondary school) being provided with computer labs containing 15 workstations, 10 for students and 5 for teachers, all connected to the internet via ADSL .

The country has achieved remarkable success in teacher training, with 100% of secondary school teachers and 60% of collège teachers receiving basic ICT training covering fundamental digital skills, classroom applications, educational software development, and online teaching. Algeria launched a national e-learning platform through the National Center for Distance Vocational Training (CNEPD) in January 2018 and established a virtual university as part of its distance learning initiatives.

Algeria demonstrates a strong commitment with a fixed broadband penetration rate of 12.01%...

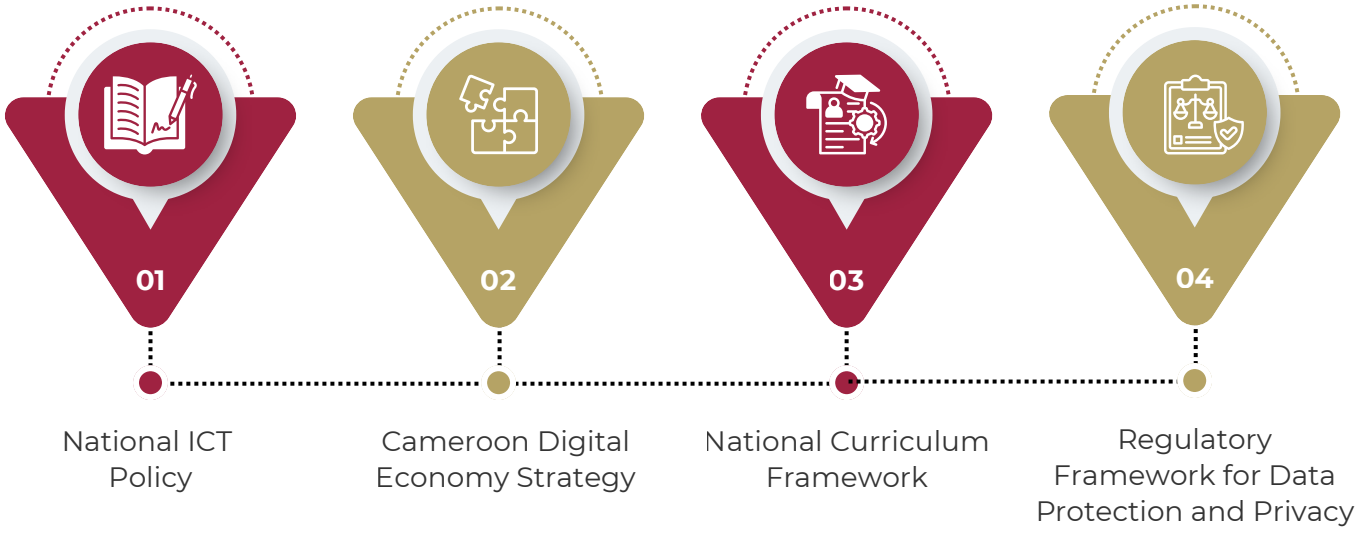
Regarding infrastructure, Algeria demonstrates a strong commitment with a fixed broadband penetration rate of 12.01% and dedicates 5.61% of its total education budget to EdTech initiatives. All universities maintain dedicated computer labs and internet access for faculty, students, and administration, while university libraries offer digital resources. The country adopted a Digital Master Plan in October 2022 to guide universities' digital transformation and convened a national conference on higher education modernization.

Regarding infrastructure, Algeria demonstrates a strong commitment with a fixed broadband penetration rate of 12.01% and dedicates 5.61% of its total education budget to EdTech initiatives. All universities maintain dedicated computer labs and internet access for faculty, students, and administration, while university libraries offer digital resources. The country adopted a Digital Master Plan in October 2022 to guide universities' digital transformation and convened a national conference on higher education modernization.

Despite these achievements, Algeria faces challenges with insufficient infrastructure and connectivity issues, particularly in rural areas with limited ADSL coverage or unavailable fiber connections. There remains a gap between teacher training and actual classroom implementation, as the impact of ICT training on daily teaching practices remains inconsistent. Algeria is a pioneer in North African ICT adoption and serves as a bridge between the Arab world and sub-Saharan Africa under its Vision 2030 for digital transformation.

4.2. Cameroon

Cameroon, with an estimated population of 30.1 million in 2025, and 6.2 million students at primary and secondary levels has an education system with ICT infrastructure which serves about 25% of secondary schools and less than 10% of primary schools. The country has established several national policies supporting EdTech integration, including the National ICT Policy, Cameroon Digital Economy Strategy, Regulatory Framework for Data Protection and Privacy, and National Curriculum Framework.



The adoption of EdTech in Cameroon remains early, with growing interest from schools, universities, and private institutions. However, the market remains fragmented with just a few local developers and international companies offering e-learning platforms, mobile learning apps, and digital textbooks. Urban schools in Yaoundé and Douala benefit from better ICT facilities, while rural schools face significant challenges, including unreliable power supply and costly or non-existent connectivity.

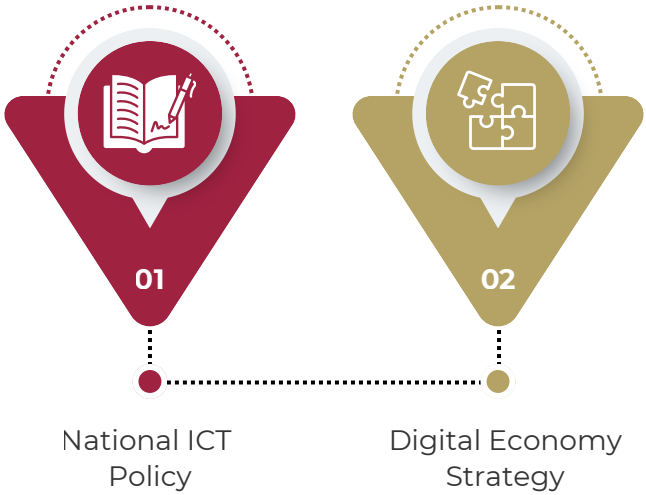
Internet penetration in Cameroon is approximately 35%, with significant disparities between urban and rural areas, where urban centers like Yaoundé and Douala enjoy relatively reliable access. In contrast, rural regions suffer from limited connectivity. Current EdTech expenditure is approximately $5-8 per student annually, primarily driven by urban private schools and non-governmental organizations, with projections indicating potential growth to $12-15 per student annually by 2030, and anticipated broadband expansion and rising mobile adoption.

The main barriers to EdTech development include limited internet access that restricts digital education initiatives, especially in rural areas, low digital literacy, where teachers and students often lack the necessary skills to use EdTech tools effectively, and data protection concerns, as Cameroon's data protection policies are not robust, raising security and privacy issues for digital education platforms. Only 30% of educators are trained to use EdTech tools, and there is no available data on the effectiveness of these training programs, which are primarily carried out by the private sector.

4.3. Congo Brazzaville

Congo Brazzaville, with an estimated population of 6.4 million in 2025, educates 1.4 million students at primary and secondary levels, with primary enrollment at 94% and secondary enrollment at 43%. The country employs 20,000 primary teachers with a student-teacher ratio of 40:1 and 10,000 secondary teachers with a ratio of 32:1. At the same time, ICT penetration remains under 15% in secondary schools and negligible in primary schools.

The EdTech sector remains underdeveloped due to infrastructure, funding, and adoption challenges, with power and internet connectivity being major issues nationwide. Urban centers like Brazzaville and Pointe-Noire have around 30% internet penetration, while rural areas are largely unconnected, creating a significant digital divide. Adoption is minimal, with only a few urban schools using mobile apps and low-cost international platforms, while localized solutions are rare due to limited investment.



Congo Brazzaville has established a National ICT Policy and Digital Economy Strategy aligned with UNESCO's framework and the Sustainable Development Goals (SDGs) vision. However, these frameworks are often aspirational with limited implementation guidance. The power and internet connectivity challenges persist, with urban areas better served than rural ones, exacerbating the digital divide throughout the country.

Annual EdTech expenditure is estimated at $3-5 per pupil, indicating limited infrastructure and funding, though strategic public-private partnerships could raise this to $10 per pupil by 2030. Despite being nascent, the EdTech sector holds growth potential, and collaboration with stakeholders could address infrastructure deficits, funding challenges, and digital literacy gaps through strategic interventions that could unlock access to digital resources.

4.4. Eswatini

The Ministry of Education and Training (MoET) in Eswatini oversees primary, secondary, and post-secondary education, with the post-school education and training sector comprising tertiary education and technical and vocational education and training (TVET). There is no dedicated ICT in Education or EdTech Policy for the Kingdom of Eswatini. However, various policy and strategy documents advocate for integrating ICT in the education system across all levels.

The 2018 National Education and Training Sector Policy outlines comprehensive policy objectives related to ICT and STEM (Science, Technology, Engineering, and Mathematics), while the 2022-34 Education Sector Strategic Plan outlines several technology-related objectives, including the creation of a digital learning support platform, improvement of ICT infrastructure in schools, development of distance learning, and enhancement of digital skills in teacher training.

The Professional Academy for Teachers enhances digital competencies via digital programs and capacity-building, in collaboration with UNESCO and Huawei. The 2018/19-2020/21 program emphasizes secondary teacher training on ICT, technology studies, and the integration of ICT in teaching. The 2022-2034 Education Sector Strategic Plan highlights ICT and computer skills as essential in teacher diploma programs, while the 2012-2016 plan ensures all teachers become proficient ICT users, prioritizing in-service training with a gender-based approach.

The country has a fixed broadband penetration rate of 2.5%, and government funding for EdTech is not specified anywhere in the budget.

Eswatini faces significant challenges with rural ICT infrastructure remaining poor, with mobile telephony serving as the primary medium for internet access, with 72% subscription and 95% coverage. Many secondary schools lack appropriate computer rooms, the costs of implementing ICT facilities are high, and teachers are often overloaded and inadequately trained. The country has a fixed broadband penetration rate of 2.5%, and government funding for EdTech is not specified anywhere in the budget. There are limited ICT teacher training programs, though ICT in teacher training is generally mentioned in policy documents.

4.5. The Gambia

The Gambia's Ministry of Basic and Secondary Education (MoBSE) oversees basic and secondary education with a mandate to integrate technology into the education system through several key national policies. The Education Sector Policy 2016-2030 emphasizes developing ICT skills for pre-service and in-service teacher training and aims to equip all public educational institutions with networked computers and peripherals.

Additional supporting policies include the National Science, Technology, and Innovation Policy 2015-2024, which includes objectives to develop and improve STEM education at all levels, the e-Government Strategy 2021-2024 that seeks to improve the education system through e-education initiatives, the National Broadband Strategy 2020-2024 that aims to increase ICT infrastructure access in schools and enhance student digital literacy, and the Human Capital Development Strategy 2021-2024 that highlights strengthening STEM education across all education levels.

MoBSE's Science and Technology Education Directorate coordinates ICT in education efforts with priority actions including providing "state-of-the-art infrastructure" such as smartboards, AutoCAD software, and computers in public high schools, ensuring dedicated internet connectivity for all public higher education institutions, training more pre-service and in-service teachers in STEM across all regions in partnership with Gambia College, and introducing a digital literacy and coding curriculum in all public high schools in collaboration with Jokkolabs Banjul.

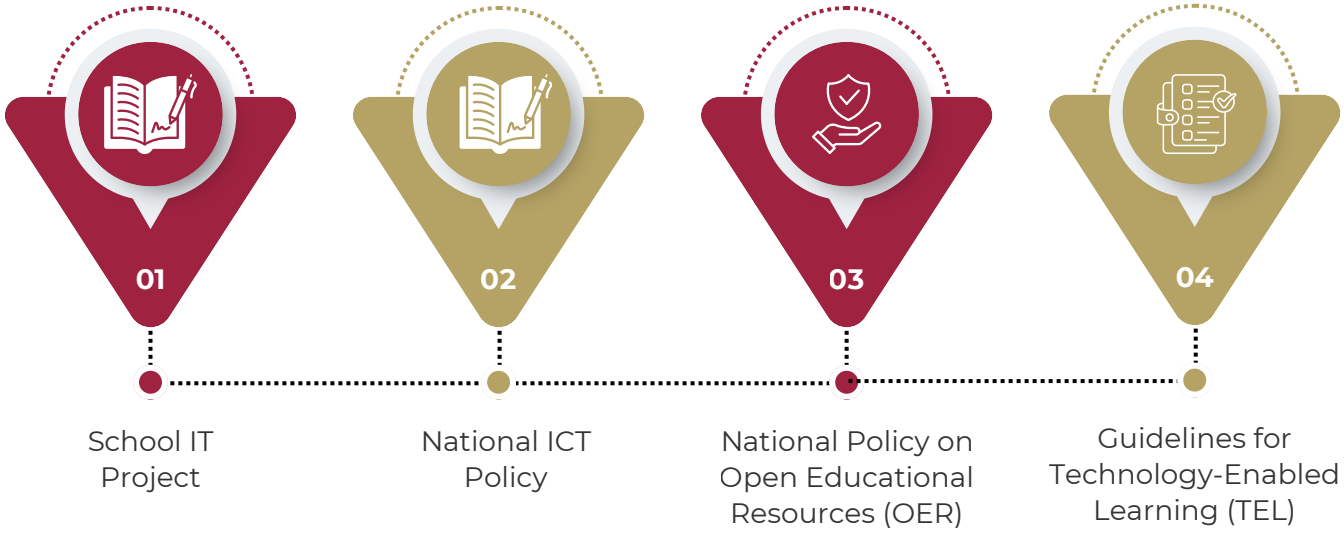
The country has an established ICT in Education policy with a fixed broadband penetration level of 0.2%...

During the COVID-19 pandemic, the Gambia Radio and Television Services provided educational content to all six regions via radio and TV. They supported teacher training on using social media and existing platforms for digital learning. The country has an established ICT in Education policy with a fixed broadband penetration level of 0.2%, though government funding for EdTech is not specified. Teacher digital literacy programs are limited, with the previous World Bank-funded World Links Program (2001-2005) having existed but having a limited current scope.

4.6. Mauritius

Mauritius, with an estimated population of 1.3 million in 2025, demonstrates a high adult literacy rate of 91.9% (93.6% male, 90.3% female) and maintains a robust education system with 342 primary schools serving 84,220 pupils and 180 secondary schools serving 108,562 pupils. The gross enrollment ratio reaches 107% at the primary level and 72.5% at the secondary level, with primary and secondary pupil-teacher ratios both approximately 12:1.

ICT has been integrated into Mauritius's education system since the early 1990s through key initiatives, including the School IT Project that began in 1991 and aimed to equip all primary schools with computer facilities, and ICT being mandated as a subject and integrated across curricula in both primary and secondary schools under the National ICT Policy. The country has established comprehensive policies and strategies including the National ICT Policy that emphasizes teaching IT in schools and curriculum integration, the National Policy on Open Educational Resources (OER) (2022) that promotes adoption of OER practices and tools in secondary schools, and Guidelines for Developing Institutional Technology-Enabled Learning (TEL) Policies that assist higher education institutions in formulating TEL policies aligned with organizational goals.

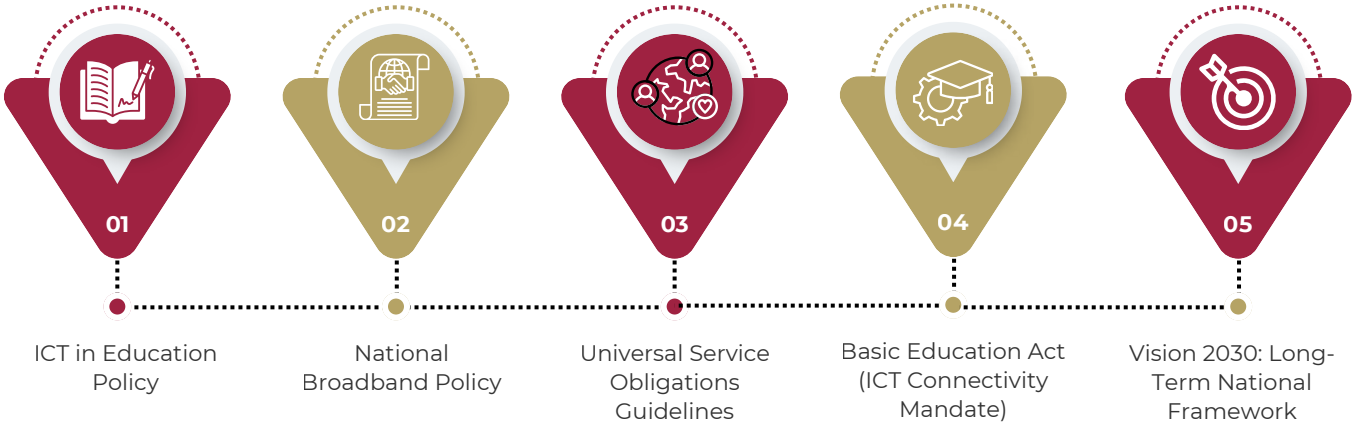


Mauritius has a growing ICT sector with a multilingual workforce supporting EdTech development. However, challenges remain, including infrastructure disparities that require ensuring consistent ICT infrastructure across all educational institutions, especially in remote areas, teacher training gaps where continuous professional development is needed to equip educators with digital skills, and enhancing digital literacy among students to maximize EdTech benefits.

Recent initiatives include government recognition of OER importance with the National Policy on OER approved in December 2022, ongoing implementation of the School IT Project to maintain and upgrade computer facilities, development of TEL guidelines to advance technology-enabled learning, and expectations that ICT infrastructure and EdTech usage will continue expanding, leveraging the robust ICT sector and attracting private sector partnerships.

4.7. Namibia

Namibia recognized ICT as a national educational priority early on, with its first ICT in Education Policy emerging in 1995 and being updated in 2000 and again in 2007. The policy aims to develop ICT-literate citizens, integrate ICT into learning, and improve educational administration while outlining objectives for deploying and maintaining ICT throughout the education sector. Namibia's Vision 2030 and the 5th National Development Plan (2017/18-2021/22) emphasize ICT as a driver of economic growth, calling for upgraded school infrastructure and support for e-learning.



The 2007 policy sets five levels of ICT proficiency for teachers, requiring all pre-service teacher training institutions to reach at least "Level 4," meaning trainees must use computer-based materials to support instruction. Both pre-service and in-service educators must complete ICT training and fully employ pedagogical applications in classrooms. At the same time, the 2020 Basic Education Act mandates regional education offices to enhance ICT connectivity in all schools.

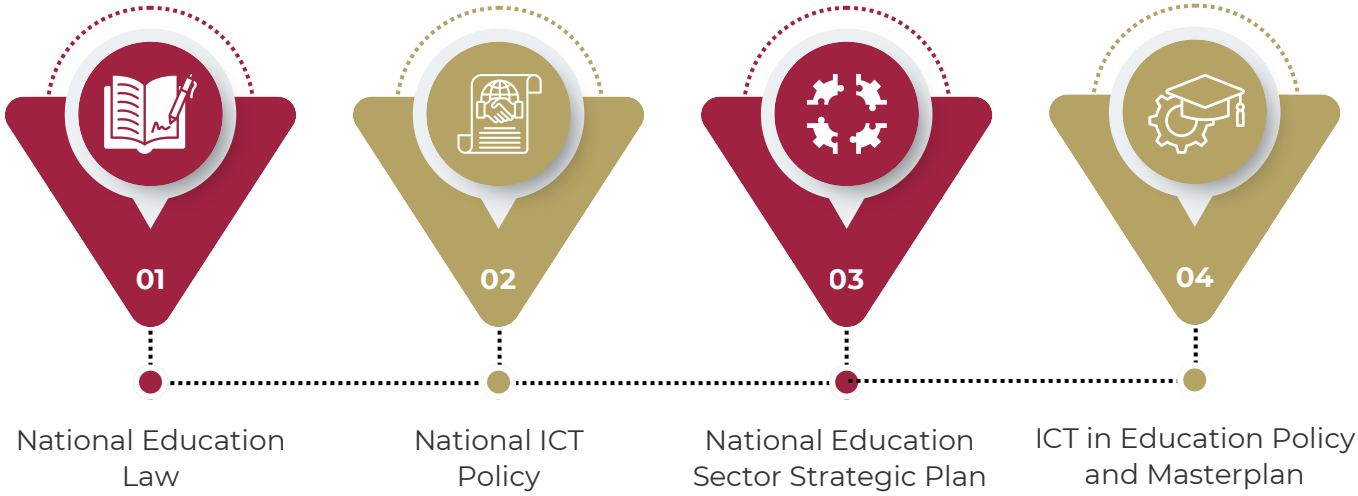
The 2019 Universal Service Obligations Guidelines require broadband services for schools, and the 2018-2022 National Broadband Policy targets 100 percent broadband coverage in schools by 2022. However, Namibia faces significant challenges with uneven access where digital resources vary widely across schools, with rural areas lagging urban centers in both connectivity and equipment, and teacher preparedness issues where many teachers lack hands-on experience with digital tools due partly to insufficient in-service training, hindering effective integration of ICT into daily instruction.

The country's recommendations focus on infrastructure expansion by prioritizing affordable broadband across all regions through partnerships with telecoms and ensuring reliable electricity and connectivity for every school, establishing professional communities to create teacher networks for exchanging best practices, resources, and strategies for using EdTech effectively, and developing contextual content through collaboration with innovation hubs to develop EdTech platforms aligned with national academic standards, especially for core subjects, tailored to Namibia's needs.

4.8. Somalia

In December 2023, Somalia finalized its first national ICT in Education Policy and Masterplan with UNESCO's support, marking a significant milestone for the country. This initiative aims to harness technology to mitigate educational disruptions caused by years of civil unrest and the COVID-19 pandemic, representing Somalia's commitment to rebuilding its education system through technological integration.

Key strategic documents supporting this initiative include the 2022-2026 National Education Sector Strategic Plan that identifies ICT integration as a priority while emphasizing digital literacy, distance learning, and teacher training; the 2019-2024 National ICT Policy Strategy that seeks to strengthen digital infrastructure, connectivity, and e-services including e-education; and the 2018 National Education Law that provides legal support for technology use in learning environments, notably online instruction.



Ongoing initiatives include a UNESCO-supported workshop that refined the ICT in Education Policy and Masterplan, focusing on leadership, infrastructure, digital literacy, and teacher skills; plans underway to expand broadband connectivity nationwide and develop digital literacy manuals for both primary and secondary levels; and teacher training programs that will cover digital pedagogy and distance-learning platforms.

Somalia faces significant challenges including quality assurance issues as the country currently lacks a central accreditation body, which has hampered consistent implementation of EdTech initiatives; and equity of access concerns as many regions remain underserved, making it critical to provide devices and subsidized internet to rural students. Despite these challenges, the completion of the policy review in early 2024 signals a more robust framework ahead, with recommendations including developing a comprehensive digital literacy curriculum for all school levels; establishing an accreditation and quality assurance institution to oversee EdTech policy implementation; and creating programs such as device-loan schemes or subsidized broadband to ensure equitable access for rural or underserved communities.

4.9. Tanzania

Tanzania is updating its National Digital Education Strategy (2024-2030). Though the final strategy remains in a draft form, earlier documents already recognize ICT as essential for educational resilience and quality. A draft circulated by the Ministry of Education sets objectives for digital infrastructure, teacher capacity building, and e-learning expansion; prioritizing establishing digital learning environments, training teachers in ICT pedagogy, and integrating digital content into national curricula.

Tanzania's fixed-broadband penetration stood at roughly 2% as of the 2023 ITU report...

Tanzania's fixed-broadband penetration stood at roughly 2 percent as of the 2023 ITU report, highlighting the significant need for infrastructure scaling throughout the country. The government is encouraging public-private partnerships to build broadband networks, especially in rural areas. Early pilots of e-learning platforms in select secondary schools have shown promise but remain limited by uneven internet coverage and device availability. Investment in solar-powered ICT labs is being trialed to reduce dependence on unstable electricity in remote regions.

The country faces several barriers, including connectivity gaps where low broadband penetration underscores challenges for rolling out e-education at scale; teacher digital skills gaps where many educators lack formal ICT training and existing in-service programs are not yet widespread; and funding constraints where government budget allocations to EdTech remain modest, requiring further budgetary prioritization.

Recommendations for Tanzania include broadband expansion through partnerships with telecom operators to accelerate affordable broadband in underserved areas, deploying community Wi-Fi and fiber where feasible, launching nationwide ICT-pedagogy certification programs through teacher colleges and in-service workshops, developing Swahili-language digital resources aligned to Tanzania's curricula to drive adoption and improve learning outcomes, and establishing a dedicated EdTech fund within the Ministry of Education to underwrite infrastructure upgrades, device procurement, and teacher development.

4.10. Egypt

Egypt's Ministry of Education and Technical Education (MoETE) has been implementing significant reforms to modernize the country's education system through technology integration. The ministry's efforts align with Egypt's Vision 2030 and focus on digital transformation to enhance educational quality and prepare students for the global economy. Egypt has launched several comprehensive initiatives to advance educational technology. Education 2.0 represents a comprehensive transformation plan to improve education quality through reforms, particularly by developing schools' digital infrastructure for substantial classroom technology use.

In April 2024, the government launched the Educational Content Studio project, which addresses educational challenges by integrating digital learning platforms and content aligned with the curriculum. The ministry is also expanding Applied Technology Schools to institutionalize technical education, focusing on international quality standards and partnerships with the private sector. Starting from the 2021-2022 academic year, ICT became a mandatory subject for students from the fourth grade of primary school onwards, demonstrating the country's commitment to digital literacy from an early age.

Egypt has mantained an 11.07% fixed broadband penetration rate.

Egypt has made significant investments in digital infrastructure to support educational technology, with the government agreeing with Telecom Egypt to connect school buildings with fiber optic technology, facilitating students' access to online schooling and examinations. The ministry has also implemented measures to increase home internet download quotas and provide intensive internet capacities to support the electronic examination system, while maintaining an 11.07% fixed broadband penetration rate.

The Professional Academy for Teachers is working to enhance teachers' digital competencies through various programs, transitioning promotion programs for teachers into digital formats offered through their platform. Egypt collaborates with UNESCO and Huawei to build teachers' capabilities through digital platforms and enrichment training courses. At the same time, the country's education sector continues to evolve with technology integration through the Education Sector Plan 2023-2027, a five-year roadmap that sets specific targets and prioritizes strategic goals for reforming the education system.

4.11. Liberia

The Ministry of Education (MoE) in Liberia has been working to integrate educational technology (EdTech) into its education system. As of 2025, Liberia has developed several policies and strategies to promote the use of technology in education. While the MoE does not have a specific department focused on EdTech, it plans to develop an e-Education Policy as part of its reform agenda, and the ministry works in collaboration with other government bodies, such as the Ministry of Post and Telecommunications and the Liberia Telecommunications Authority, to implement EdTech policies and strategies.

Liberia has established three major policy frameworks to advance educational technology, with the ICT in Education Strategy (2021-2026) focusing on embedding ICT in teaching, learning, and assessment in Liberian schools. This comprehensive strategy covers four key areas: teaching, learning, and assessment using ICT, teacher professional learning, leadership, research, policy, and ICT infrastructure development. The National ICT Policy (2019-2024) includes provisions for ICT in education, aiming to transform Liberia into a regional knowledge-based economy with key objectives including encouraging educational institutions to invest in computers and internet connectivity, promoting electronic distance learning and virtual learning systems, developing ICT curricula for all education levels, and creating affordable ICT packages for students, teachers, and educational institutions.

The Education Sector Plan (2022/23-2026/27) aims to harness ICT to improve access, quality, and management of education and training systems, representing Liberia's commitment to integrating technology across all educational delivery and administration aspects. The MoE is responsible for several critical aspects of EdTech implementation including developing the ICT curriculum to ensure that technology education is appropriately integrated into the national educational framework, focusing on building digital literacy among students and educators, creating a national e-education strategy that will guide the country's digital transformation in education, and providing ICT training for teachers to ensure they have the necessary skills to integrate technology into their teaching practices effectively.

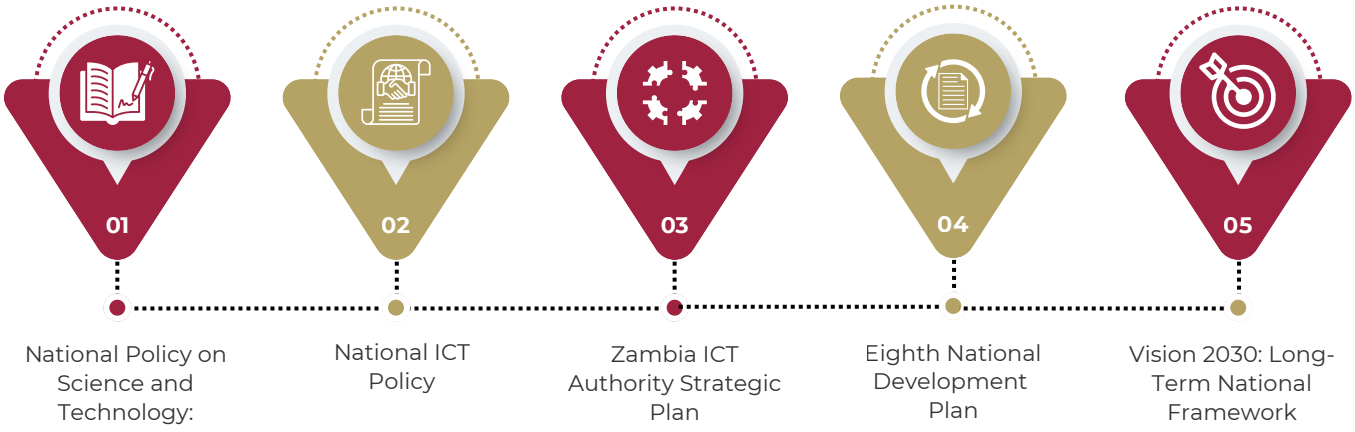
Liberia has a 0.3% fixed broadband penetration rate...

Liberia has made significant progress recently, including establishing the Division of Special and Inclusive Education in 2011 and implementing pilot schools using an inclusive methodology. This demonstrates the country's commitment to ensuring educational technology benefits all learners, including those with special needs and disabilities. Liberia has an established ICT in Education Policy with a 0.3% fixed broadband penetration rate, which represents one of the lowest connectivity levels among the countries studied. In comparison, government funding for EdTech represents 2.11% of the education budget, which while specified, remains relatively modest for comprehensive technology integration.

4.12. Zambia

The Ministry of Education (MoE) in Zambia is responsible for formulating and implementing education policies across early, primary, secondary, and tertiary education. However, Zambia lacks a specific ICT in Education Policy and has therefore developed a framework for integrating ICT into education through broader national policies. The 1996 National Policy on Science and Technology aimed to incorporate technology into key sectors, including education, focusing on developing STEM skills and technological capacity, while the 2021 National ICT Policy represents Zambia's most comprehensive approach to digital integration, aiming to transform the country into a digital economy and knowledge-based information society.

The 2006 National ICT Policy emphasizes ICT's vital role in national development, specifically targeting integration into education, research, and development, recognizing ICT's potential to enhance education quality through e-learning and online learning opportunities, while allocating significant budget resources to ICT integration within the education system. The Zambia ICT Authority's 2017-2021 Strategic Plan aims to bridge the digital divide and enhance access to ICT services in education through Smart Zambia e-services initiatives, while Zambia's Eighth National Development Plan (2022-2026) emphasizes science and technology skills development, promoting ICT and STEM as essential components of education programs.



The 2016 Competency Framework for Community School Teachers highlights modern technology application as a key competency, emphasizing that teachers should utilize ICT to promote independent and collaborative learning, while teacher ICT competency standards are included in the 2019 Standards of Practice for the Teaching Profession, focusing on developing innovative teaching materials that incorporate technology. Zambia's Vision 2030 aims to transform the country into a prosperous middle-income nation where "science, technology, and innovation drive national development and enable the country to compete on a global scale," emphasizing technological proficiency and the ability to adapt, innovate, and invest in human and natural resources.

According to the document's analysis, Zambia lacks a specific ICT in Education Policy. It has only 0.4% fixed broadband penetration...

According to the document's analysis, Zambia lacks a specific ICT in Education Policy. It has only 0.4% fixed broadband penetration, one of the lowest rates among the studied countries. At the same time, government funding for EdTech is not specified in the national budget, and teacher digital literacy programs have limited scope. Significant challenges include limited infrastructure to support ICT use in schools, with many institutions, especially in rural areas, lacking functional computer labs, and a shortage of ICT-skilled teachers and qualified ICT educators, despite computer studies being introduced in the curriculum.

The document recommends enhanced coordination between the Ministry of Education, private sector partners, and international organizations for more cohesive technology integration, prioritizing teacher training programs focused on ICT integration and digital pedagogy, giving significant attention to infrastructure development particularly in rural areas to bridge the digital divide, developing specific EdTech policies and funding mechanisms rather than relying solely on broader ICT policies, and pursuing public-private partnerships that could accelerate EdTech adoption and ensure sustainability across the country's educational landscape.

5. Top Five Countries Recommended for EdTech Pilot Implementation

At the end of the study, the following countries are recommended for the EdTech pilot implementation. A summary of the justification is included for each recommended country.

5.1. Kenya

01

Strong Foundation

Established national policy framework with structured feedback systems

02

Infrastructure Readiness

Tablets distributed to 22,000+ schools, existing ICT labs

03

Stakeholder Engagement

Active ministry partnerships with UNESCO, World Bank, and private firms

04

Implementation Experience

Successful VTabu Virtual platform and Eneza Education DSP

5.2. Ghana

01

Policy Maturity

Computing taught from grade 4, strong collaboration with stakeholders

02

Digital Platforms

Computing taught from grade 4, strong collaboration with stakeholders

03

Connectivity Focus

Active efforts to expand rural bandwidth

04

Vendor Partnerships

Established telecom collaborations for scaling

5.3. Mauritius

01

High Engagement

500+ public consultation submissions showing strong participation

02

Comprehensive Approach

Early Digital Learning Program with interactive projectors and tablets

03

Accessibility Focus

Electronic braille devices for inclusive education

04

Policy Accessibility

Documents readily available through government portals

5.4. Egypt

01

Advanced Infrastructure

Education 2.0 reform with Egyptian Knowledge Bank (EKB)

02

Scale Potential

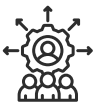
National digital platforms and AI integration plans

03

Content Creation

Arabic content development, reducing language barriers

04



Teacher Training

Systematic pre-service

05

Digital Programs

In-service digital programs

5.5. Tanzania

01

Strategic Development

Updating National Digital Education Strategy (2024-2030)

02

Partnership Model

Strong NGO collaborations (SIDA, UNICEF) for infrastructure

03

Local Content

Growing Swahili-localized content development

04

Innovation Focus

Solar-powered ICT labs for rural connectivity

5.6. Common Justification for the Selected Countries

Here are the reasons why these countries are ideal for vendor-neutral pilots.

01 — Infrastructure Readiness
All five have existing digital infrastructure and connectivity initiatives underway

02 — Policy Frameworks
Established or developing comprehensive EdTech policies with stakeholder engagement mechanisms

03 — Implementation Experience
Proven track record with digital education initiatives during COVID-19 and beyond

04 — Diverse Representation
Cover different African regions and development stages, providing varied testing environments

05 — Partnership Capacity
Strong collaboration with international organizations and the private sector

06 — Language Diversity
English, Arabic, French, and local language content development capabilities

6. Conclusion

The AUDA-NEPAD EdTech Policy Initiative's stakeholder engagement across 15 African countries reveals a continent at a critical juncture in its digital education transformation. While significant progress has been made in policy formulation and infrastructure development, substantial gaps remain in implementation, equity, and sustainability.

Policy Landscape: Countries demonstrate varying levels of EdTech policy maturity, with early adopters like Algeria and Egypt leading in comprehensive frameworks, while nations such as Somalia, Liberia, and Eswatini are still developing foundational policies. None of the surveyed countries have fully implemented the African Union Digital Education Strategy (2023-2028), highlighting the need for coordinated continental action.

Infrastructure Challenges: Limited broadband penetration (averaging 37% across Africa) and inadequate electricity supply remain fundamental barriers. Rural-urban digital divides persist across all countries, with connectivity challenges particularly acute in countries like Zambia (0.4% fixed broadband) and Liberia (0.3%).

Human Capacity Gaps: Teacher digital literacy emerges as a critical bottleneck, with most countries reporting insufficient training programs and limited pedagogical integration of technology. While some countries like Algeria have achieved 100% secondary teacher ICT training, others lack systematic capacity-building initiatives.

Stakeholder Engagement: Feedback mechanisms vary significantly. Countries like Mauritius demonstrate robust consultation processes (500+ public submissions), while others rely primarily on centralized or donor-driven approaches. Grassroots engagement through local education offices and community structures shows promise but requires strengthening.

6.1. Strategic Imperatives

01 — Infrastructure First
Accelerated broadband expansion through public-private partnerships, with particular focus on rural connectivity and renewable energy solutions.

02 — Teacher Empowerment
Comprehensive, sustained professional development programs that go beyond basic digital literacy to pedagogical integration.

03 — Policy Harmonization
Alignment with the AU Digital Education Strategy and development of vendor-neutral, standards-based frameworks.

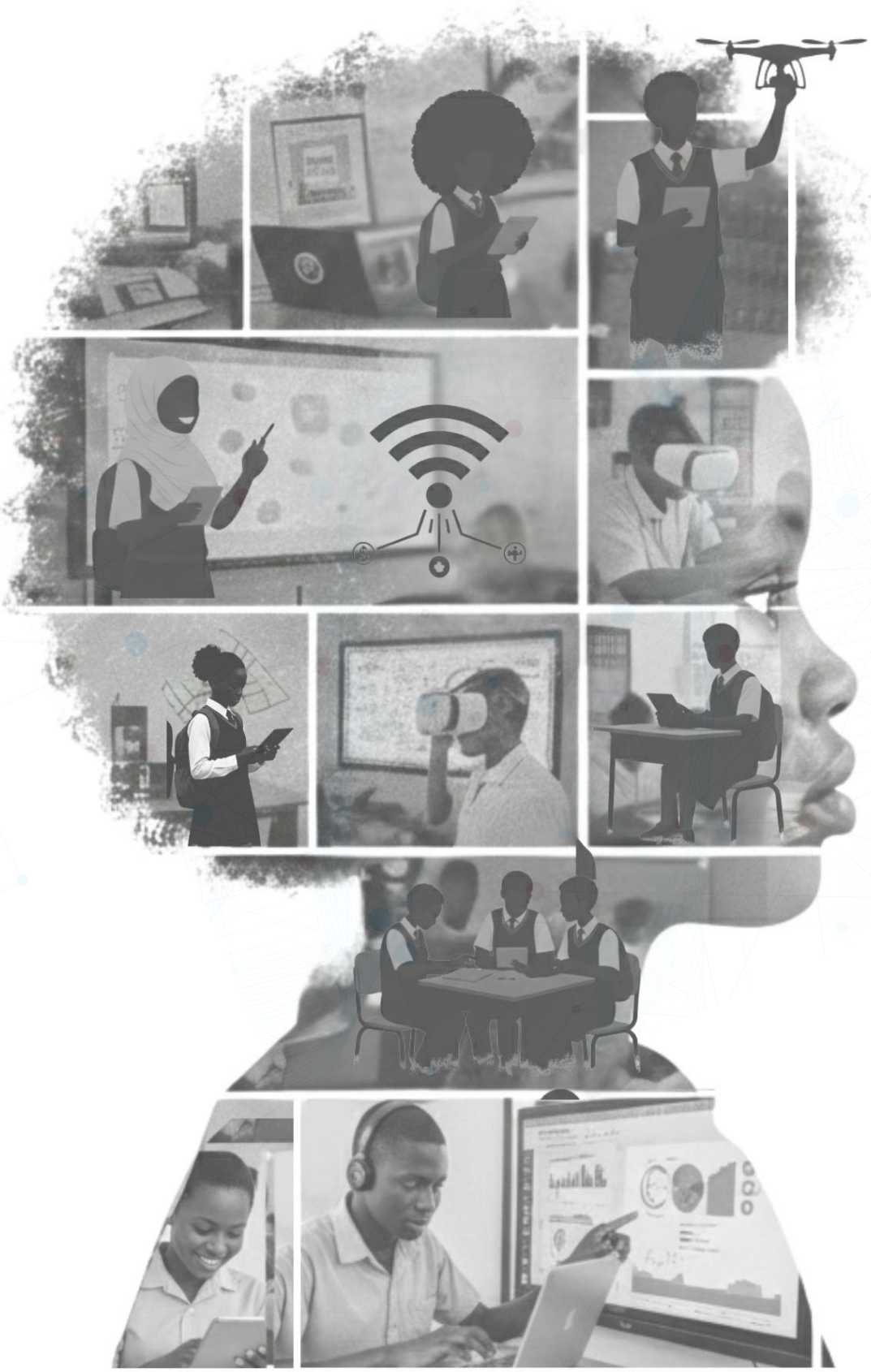
04 — Equity and Inclusion
Targeted interventions for marginalized communities, including multilingual content development and accessibility provisions.

05 — Sustainable Financing
Clear budget allocations for EdTech (targeting 20% of education budgets) and innovative financing mechanisms.

The stakeholder engagement reveals both the urgency and opportunity for transformative change in African education through technology. Success will require coordinated action across multiple levels - from continental policy frameworks to local implementation strategies. The emphasis on vendor neutrality, open standards, and community-driven solutions provides a foundation for sustainable, scalable EdTech adoption.

Most critically, the engagement underscores that EdTech is not merely a technical challenge, but a holistic transformation requiring political will, sustained investment, and genuine stakeholder participation. The path forward demands bridging the gap between policy aspiration and classroom reality, ensuring that digital transformation serves to enhance rather than exacerbate existing educational inequalities.

The Kimotho Project's next phase must prioritize actionable implementation frameworks that translate these insights into measurable improvements in learning outcomes across the continent's diverse educational landscapes.



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