16th Ministerial Round Table

"Future Africa: A Skilled and Capable Workforce for Africa and the World"

Kigali Rwanda May 29 2024

Communiqué

Hosted by

eLearning Africa

Co Hosted by

Republic of Rwanda
Ministry of Education

MRT Partners

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1. Educational Background

Figure 1: Challenges

Summary of Challenges Facing Education in Africa:

- There are 64 million children out of school in Africa.
- 90% of 10-year-olds in three East African countires cannot understand a written text.
- By 2030, 15 million new teachers will be needed. Teachers are essential for rapidly improving educational outcomes, leveraging technological support.
- There are 9m unemployed youth.
- Quality education extends beyond literacy and numeracy to include digital literacy, all three of which are the basic skills needed for work and employment. Only 50% of African schools have training in ICT as opposed to 86% globally
- Connectivity, capacity and content: there are still issues around internet connectivity in many countries, teachers and students lack capacity to operate within a technological paradigm, and there remains a lack of African cultural and linguistic inclusion in the digital world.
- While technology can offer many benefits, issues of competence frameworks, standards, regulations, including ethical and equity challenges, need to be addressed.
- But ***'AI is transformational.'***

UNESCO (2024)

The rapid expansion of Africa's youth population and the expected double-digit growth in demand for education make traditional educational systems unsustainable. Technology is playing a pivotal role in facilitating access to education, facilitating personalised learning pathways and recognising achievements on completion of key elements of learning. Education must equip students with the necessary skills to thrive in an increasingly technology-driven world.

A transformative paradigm shift is underway in African education systems at all levels, to address current challenges and future aspirations. The overarching goal of transformation is to foster economic and social development by aligning education with the demands of a rapidly evolving, demographically driven, technology-centric landscape. This transformation encompasses initiatives ranging from maximising literacy and numeracy gains for all in primary schools, developing intellectual and practical skills in secondary school, providing practical work and livelihood skills through collaborations between colleges and industry, and focusing higher education on generating new knowledge and training graduates (including future educators) to spearhead the transition towards a high-value, technology-driven economy that fosters employment opportunities.

There are four defining features and requirements of the new paradigm:

- strengthening digital literacy,
- using technology for learning,
- widening access routes to learning,
- and promoting lifelong learning.

The mismatch between the skills demanded by employers and those possessed by individuals hinders productivity and economic growth. By embracing technology for learning, teacher training, assessment, and management, education systems can better align their offerings with the evolving needs of the economy. Identifying and addressing specific skills gaps across various industries or sectors will empower young people to access employment opportunities that match their competencies and aptitudes.

Implementing this paradigm shift is a formidable task, demanding not only a clear strategic plan but also a national commitment to adapt the education system to better meet the skills and economic demands of the 21st century. Effectively achieving the paradigm shift requires concerted focus on four key elements: training of teachers and teacher trainers, infrastructure expansion, curriculum innovation, and alignment with economic needs.

Undertaking such a paradigm shift will begin to address the needs of Africa's growing youth population and the demands of a modern economy. This transformation not only fosters economic growth but also enhances social development and resilience to economic, social, climate, and other challenges.

Key issues for the eLearning Africa Ministerial Round Table included:

- reconceptualising technology as central to the education process,
- addressing school dropout rates,
- closing skills gaps.

2. Addressing the Challenges: Outcome of the Ministerial Round Table Discussions

The 2024 edition of the eLearning Africa Ministerial Round Table (MRT) focused on addressing the paradigm shift outlined above.

The opening speaker, the Rwandan Minister for ICT and Innovaion, **Hon. Paula Ingabire,** highlighted the need for more investment in education technology to ensure graduates, at all levels, have the skills they need for employment. She said that Rwanda will scale up teacher training and noted the importance of both radio and virtual learning, both during the pandemic, and currently. Technology will re-define the future of education, emphasising the need for more classrooms, more teachers, and universal access to digital infrastructure. She also called for the inclusion of emerging technologies such as AI in schools, and to develop the 'soft' skills needed for future jobs. Additionally she, highlighted the risks associated with technology, such as cyber security and online protection for children.

She emphasised the importance of training for the rural population in the use of digital devices and integrating AI into educational and practical applications to foster digital competence and confidence. This is crucial not only for the development of the education system but also for enhancing digital skills across the economy.

Dr. Alexandros Makagaikas, Director UNESCO, East Africa, discussed the need to re-conceptualise education and make technology an integral part of it. He provided statistics on connectivity, capacity, and content, stressing the importance of connectivity, access to digital tools, and developing digital competence and capacity in the teaching force (see Figure 1 in previous section). A new UN initiative aims to provide all students with access to appropriate learning content and a global community of practice.

Technology is not the answer to every problem and can pose ethical and equity challenges. Governments need to develop standards and regulatory frameworks taken from already existing global standards, particularly a set of ethical guidelines for AI. Education policies for technology and AI need to be developed and implemented, and data on the use of technology in education needs to be collected into actionable reports.

Session 1: Maximising Learning Outcomes in Schools, Including Addressing School Dropout Rates

Utilising technology, innovative curricula and innovative teaching and learning practices can help maximise learning for all students, including those who have 'dropped out' of the system. Providing young people who have dropped out of school with opportunities to 'catch up' with their educational achievements and enable them to continue to post-school education and training is vital for building human capital.

The principle of 'no child left behind' is crucial in addressing school dropout rates and inequitable girls' education in Zimbabwe. Access to digital learning can potentially reach all out-of-school children, providing them with individualised pathways to learning achievement. However, preventing them from leaving school in the first place, by providing remedial individualised learning opportunities, is even better. Zimbabwe aims to provide every school with access to technology, but this is not yet in place.

The importance of parental and community involvement in education across Africa was emphasised.

Tanzania has begun implementing a new curriculum as part of a set of major education reforms, focusing on teachers, who are pivotal to the development of children's educational attainment. The new curriculum takes a community-centered approach to include wide stakeholder engagement in the review of the old curriculum and in the development of the new one. Implementation needs to be monitored closely. Partners are involved in developing instructional videos to enable students to re-study and re-sit their 'failed' examinations so that they can go back into school.

Figure 2: Eswatini

Eswatini's Transition: From Paper-based to Digital Teaching and Learning.

Rationale:

- To provide continuity of learning in unforeseen circumstances (e.g. COViD-19)
- Embracing ICT to produce the 21st century learners
- To improve teaching and learning pedagogies.

Why eLearning:

- As well as being an important subject, ICT is a vital teaching and learning tool, throughout the sector, including education management information systems.
- In line with SADC and National education sector plans.

Initiatives:

- Phased Introduction of UNICEF's Learning Passport in all schools.
- Piloting of ALTURA Learning Management System into primary schools.
- Piloting integration of ICTs into teaching and learning of STEM subjects in secondary schools.
- Using EMIS to access real-time data for schools

Challenges and opportunities:

- Digital divide and infrastructure
- Capacity building of teachers for using ICTs
- Lack of connectivity, and instability, in some areas

Partnerships and focused investment contribute to success.

In the discussion that followed the presentations, it was emphasised that teachers should be seen as core educators and influencers in the broader community.

The representative from Guinea highlighted a conflict in higher education regarding digital technology. While high-level qualifications such as PhDs are required to teach, it is often younger people, who may not possess extensive qualifications, that lead advancements in the digital sector. This disparity, compounded by issues such as low salaries and brain drain, results in Africa investing in education and training that ultimately benefit other countries.

Session 2: Closing Skills Gaps and Adapting to New Economic Conditions

'Business adapts to change and new paradigms much more quickly than the education system does. Education cannot continue as business as usual. Usual business has changed.'

The education system in Africa faces a significant challenge in adapting to new economic conditions, as businesses face a world of VUCA (Volatility, Uncertainty, Complexity, and Ambiguity). The shortage of talent is the main drag on economic development, with a 70-year high difference between demand versus supply of talent. Soft skills and digital skills are the key missing elements, making it difficult to find a match between the skills people have and the skills required for particular jobs.

The African Digital Media Institute in Kenya works with employers to train people in the skills employers need, resulting in 70% of students being employed by the end of the course, and 96% being employed within 12 months. All students work with employers throughout their course. The fundamental lesson for educators and policymakers is to bring educators together with employers to ensure students entering the workforce have appropriate skills.

There is a global shortage of 80 million people for jobs requiring ICT and digital skills. Filling at least some of these vacancies could be **'Africa's gift to the world:** skilled IT practitioners at all levels'. Policy makers and educators need to put students' future success first. There are political and structural barriers to changing education to meet current and future demands. Africans must invest in themselves to give them the 'digital DNA' needed for current and future success.

Zimbabwe, like many countries in Africa, has a certification-based society rather than a skills-based one. A 2018 skills audit showed that the skill base was 38%, whereas literacy was over 90% of the population. The national vision for Zimbabwe 2030 is complementary to the SDGs, but there is a difference between the theory, which is what education currently teaches, and skills required in the economy, which is what employers need.

Access to vocational education in Zimbabwe requires passes in 5 'O' level subjects, but only 29% of secondary students get 5 'O' levels. Therefore, 71% of students are automatically excluded from accessing vocational education. Private-sector apprenticeships and internships are available, but a small industrial base cannot meet the demand for places. The private sector and universities are developing 10 centres for incubators around digital skills training and ICT hubs, by 2025.

In the Zimbabwean education curriculum, a pathway for developing technical skills outside the usual system needs to be found, and girls' access to skills training and STEM needs to be promoted. Technical Training Centres are being refurbished, teacher skills updated, links with industry promoted. Measuring learning quality by competency-based measurement should be promoted, rather than unstandardised certification.

The discussion following the presentations, highlighted the need for rapid adaptation to changes in the global economic and political landscape. New technologies demand new skills,and new actors introduce new systems. Learner-centered online peer networking facilitates intergenerational dialogues and research. This approach fosters innovation by effectively managing crosscutting skills, thereby enabling African skills and knowledge to contribute to global advancements and developments.

'Good skills beat academic qualifications', and employers want to know what you can do rather than what you know. In the short term, more recognition of micro-credentials in soft skills and 21st-century skills, and short, focused academic courses are needed. Technical trainers and teachers often lack these skills themselves, and even if they do have them, they do not recognise them as skills they should promote alongside directly technical skills.

Training environments must reflect new practices in the workplace, using real case studies and work placements to ground students' learning in the real world. There must be a loop back to training facilities to ensure they are developing the workplace skills required.

Session 3: Embracing Technological Advancements

As African economies integrate into an increasingly sophisticated and digital world, mastering appropriate digital skills for education, training, and in the workplace becomes crucial. This necessitates ensuring widespread access to relevant digital skills and fostering policies and infrastructure to support future-facing economic sectors.

Uganda's education sector faces challenges in integrating technology into its education system. 3G/4G or 5G networks, are run by private companies. To ensure universal access and connectivity, the government is working closely with these companies and considers zero-rated online learning platforms. The Ministry of Education has been slow to adapt to ICT and needs to reconsider its approach, as an example in prioritising online libraries over physical books. Notably, 80% of secondary schools are already connected to the internet.

In discussion following the presentations, it was agreed that a closer working relationship between the public and private sector is essential to ensure new entrants to the jobs market have the necessary skills for success. Employers should be engaged in defining and standardising the skills required, and digital upskilling of the current workforce is necessary. Technology is crucial for making education fit for the 21st century and needs to be fully integrated into education systems.

Training environments must reflect new practices in the workplace, using real case studies and work placements to ground students' learning in the real world. There must be a loop back to training facilities to ensure they are developing the workplace skills required.

Figure 3: Malawi

Transforming Education in Malawi and Beyond

The common vision: To produce the critical mass of human capital with relevant 21st century skills to meet national, African, and international goals.

'Relevant education for everyone, everywhere'.

- Education imparts knowledge skills and attitudes for progress. Technology applies scientific knowledge to the practical goals for human life.Together they can develop human progress.

Technology and the Teacher: Technology provides personalised learning and wide access to information. Teachers provide emotional intelligence, mentorship and inspiration. With the integration of technology in the classroom, teachers' work can be made easier, and faster. Learning can be fun and pitched at the right level for individual students. 'Smart' classrooms.

Expand schooling beyond the classroom. How?

- Visionary leadership and bold decision-making are essential.
- National scaling up for evidence-based technologies.
- Focus on **evidence-informed** policy and decision-making.
- Commitment to the Global Compact on Education Financing: 4-6% of GDP to Education.
- Foundational education strategy (stds 1-4): support, train and deploy teachers, redesign curriculum, expand school feeding, digital ise education for access, quality, efficiency and resilience.
- Spotlight programme: Building Education Foundations through Innovations and Technology (BEFIT 2023-2029)

Digital enablers

Supporting policies: various digital policies and strategies, ICT for Education policy now in development, revision of Science and Technology Strategy, and development of an AI Regulatory Framework.

- Target is all schools to be connecdted by 2030. Zero Rating key education websites to ensure equitable access.
- Digital skills training - for all schools.
- Strengthening University research and innovation.
- Support strong partnerships.

Collaboration.

- Greater collaboration within the region, across Africa.

We believe in Transforming Education together! Collaboration North South- South-South, for bigger investments, and harnessing evidence for progress.

3. Conclusions

- Technology offers the opportunity for a changed paradigm, to address deep systemic issues with the provision of universal, relevant education to young people: focusing on the foundational skills of literacy, numeracy and digital literacy on which to build a comprehensive and inclusive education system.
- African is not yet a world-leading technology power and needs to move from being a consumer of technology from other places, to become a producer of African developed technology, in African languages and emphasising African values.
- No country can do this on its own. Many fundamentals, e.g. electricity and connectivity, can be developed at a continent-wide level. Development of African language models for AI can be done at the regional level retaining control of the language models developed.
- Creating a platform to allow sharing of innovation in African digital advances and enable scaling of innovations in different countries and regions would be a welcome first step.
- Collaboration, and co-operation, at the African Union Level, and the regional level, between and among countries, and between the government, private, and social sectors within countries, will all contribute to accelerating the development of new 21st century education models for education across Africa.

The challenges are recognised, and already, in 2024, we can see evidence of a new dynamism in embedding technology into the core of the education process in Africa.

MRT Programme

Wednesday 29th May

13:45 - 14:00 **Refreshments and Networking**

Chairperson:
Dr Aida Opoku-Mensah,
Co-founder of the Fourth Industrial Revolution Consortium for Africa's Development (FIRCAD), Ghana

14:00 - 14:30 **Keynote Speakers**

Hon. Claudette Irere,
Minister of State for Education, Rwanda

Dr Alexandros Makarigakis,
Director and Regional Representative, UNESCO Regional Office for Eastern Africa

14:30 - 15:30 **Maximising Learning Outcomes in Schools, Including Addressing School Dropout Rates**

Utilising technology, innovative curricula and innovative teaching and learning practices can help maximise learning for all students, including those who have 'dropped out' of the system. Providing young people who have dropped out of school with opportunities to 'catch up' with their educational achievements, and enable them to continue to post-school education and training is vital for building human capital.

Speakers:
Hon. Monica Mutsvangwa,
Minister of Women Affairs, Community, Small & Medium Enterprises Development, Zimbabwe

Eva Esther Shalin Ebenezer,
Associate Professor, International University of Grand-Bassam, Côte d'Ivoire

Respondent:
Dr Lyabwene M. Mtahabwa,
Commissioner for Education, Ministry of Education, Science and Technology, Tanzania

Open discussion

15:30 - 15:45 **Refreshments & Networking**

15:45 - 16:45 **Closing Skills Gaps and Adapting to New Economic Conditions**

Rapidly meeting today's demands in education, health, labour, and productivity requires addressing current skills gaps. This can involve providing job-specific skills training, utilising micro-credentials, and promoting upskilling and reskilling initiatives, as well as traditional higher education. The emergence of new economic sectors and climate change impacts will require ongoing management of skills for economic growth and social development.

Speakers:

Dr Laila Macharia,
Aspen Institute's Africa Initiative, Kenya

Ambassador Rudo Mabel Chitiga,
Permanent Secretary, Ministry of Skills Audit and Development, Zimbabwe

Respondent:

Brice Aka,
Centre Régional de Leadership - YALI, Senegal

Open discussion

16:45 - 17:30 **Embracing Technological Advancements**

As African economies integrate into an increasingly sophisticated and digital world, mastering appropriate digital skills for education, training, and in the workplace becomes crucial. This necessitates ensuring widespread access to relevant digital skills and fostering policies and infrastructure to support future-facing economic sectors.

Speaker:

Hon. Paula Ingabire,
Minister of ICT and Innovation, Rwanda

Hon. Madalitso Kambauwa Wirima,
Minister of Education, Malawi

Respondent:

Hon. George William Nyombi Thembo,
Executive Director of the Uganda Communications Commission (UCC), Uganda

Open discussion

17:30 - 17:45 **Conclusions and Recommendations**

17:45 - 18:00 **Photo Session**

18:30 - 21:30 **Ministerial Round Table Dinner**

Dinner Welcome:

Hon Claudette Irere,
Minister of State for Education, Rwanda

Jacques Dang,
L'Université Numérique, France