THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

NATIONAL DIGITAL EDUCATION GUIDELINES FOR SCHOOLS AND TEACHER COLLEGES

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FOREWORD

The Ministry of Education, Science and Technology has played a pivotal role in recognising the importance of Information and Communication Technology (ICT). This recognition is crucial in preparing the current and future generations to navigate and thrive in the rapidly evolving global education system leveraging digital technologies. Digital skills are becoming essential for any individual in the country to become responsible and self-reliant in the social dimension and effectively contribute to the country's economic growth. Cognizant of the demand for digital skills and digital-enabled skills, the Ministry of Education, Science and Technology (MoEST) has developed the National Digital Education Strategy 2024/25–2029/30 and National Artificial Intelligence Guidelines for Education, a transformative action that is promising to reshape Tanzania's education and as the results paving the way for a brighter future. The strategy states the need to establish Guidelines to ensure the effective implementation of the strategic actions. The Guidelines will facilitate the enforcement and operationalisation of the strategy.

The development of these Guidelines aims at informing stakeholders in schools and the teacher education ecosystem on systematic approaches to implementing strategic actions of the National Digital Education Strategy 2024/25 – 2029/30 towards achieving the set targets. The Guidelines also enable the effective development and use of digital technologies to achieve collaborative transformation in schools (pre-primary, primary, and secondary) and teachers' colleges.

The Guidelines provide an overview of the opportunities and challenges associated with digital technology development and its integration into the schools and teacher colleges education ecosystem. They highlight the expected outcomes of implementation by stakeholders, aimed at achieving the targets set in the National Digital Education Strategy 2024/25 – 2029/30. The implementation of these guidelines will take place in schools and teacher colleges under the MoEST, with oversight by the Commissioner for Education.

Aligned with the targets and performance indicators outlined in the implementation plan for the National Digital Education Strategy, these guidelines aim to foster effective coordination and practices, driving progress toward improved learning outcomes and national educational goals.

Dr. Lyabwene M. Mtahabwa

COMMISSIONER FOR EDUCATION

LIST OF ACRONYMS

AI	Artificial Intelligence
AR	Augmented Reality
CoL	Communities of Learning
DEO	District Education Officer
DRP	Disaster Recovery Plan
EMIS	Education Management Information System
GAI	Generative Artificial Intelligence
ICT	Information and Communication Technology
IT	Information Technology
LMS	Learning Management System
MICIT	Ministry of Information, Communication and Information Technology
MoEST	Ministry of Education, Science and Technology
MOOCs	Massive Open Online Courses
NECTA	National Examination Council of Tanzania
REO	Regional Education Officer
SAMR	Substitution, Augmentation, Modification, and Redefinition
SQA	School Quality Assurance
TIE	Tanzania Institute of Education
TPACK	Technological, Pedagogical and Content Knowledge
TPSF	Tanzania Private Sector Foundation
UDL	Universal Design for Learning
VR	Virtual Reality
WEO	Ward Education Officer

DEFINITION OF KEY TERMS

Capacity Building	Strengthening the knowledge, skills, and resources of individuals and institutions involved in digital education and implementation through training and professional development initiatives.
Curriculum Integration	The educational approach of connecting and integrating different subjects or areas of learning provides a more cohesive and meaningful learning experience for learners.
Digital Education	The use of digital technologies, tools, and platforms to facilitate teaching, learning and assessment within educational settings.
Digital Facilities	Physical spaces and infrastructure equipped with digital devices and resources,
Digital Infrastructure	Hardware, software, and tools necessary to develop, deploy, and manage digital education applications in schools and teacher colleges.
Digital Tools	Software applications or platforms that utilise digital technologies to enhance teaching, learning, and administrative processes within educational institutions.
Educator	Teachers, trainers, tutors, instructors or facilitators with competencies to provide education and training to learners in schools and teacher colleges.
Equity and Inclusivity	Ensuring the benefits of digital education are accessible to all individuals regardless of socio-economic status, geography, gender, ethnicity, or other characteristics.

ICT Resources	ICT tools and digital materials that facilitate teaching and learning processes.
Learner	An individual who is actively engaged in acquiring competencies through formal instruction in schools and teacher colleges.
Schools and Teacher Colleges	The formal education level comprises schools (pre-primary, primary, ordinary secondary, and advanced secondary) and teacher colleges.
Sustainability of Digital Initiatives	Ensuring digital initiatives are viable, scalable, and environmentally, socially, and economically sustainable over the long term.
Zero-rating	A commercial practice where an internet service provider (ISP) allows users to access certain websites or applications without counting towards their data usage.

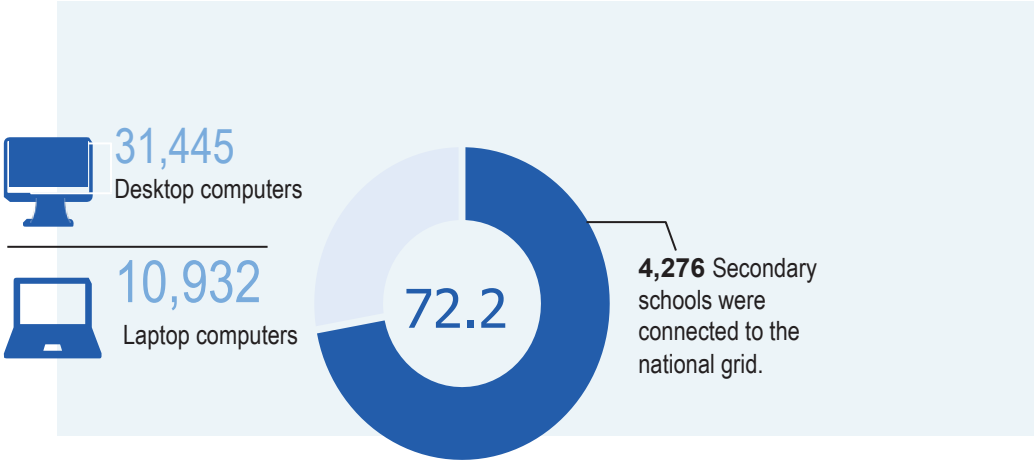
1.0 INTRODUCTION

Integrating Information and Communication Technology (ICT) into schools and teacher colleges is vital for fostering innovation, enhancing competitiveness, and cultivating global citizenship among learners. In today's interconnected world, it is imperative to equip learners with the digital competencies needed to thrive in a technology-driven society. Equally important is ensuring that ICT integration is inclusive and equitable addressing gender disparities, accessibility barriers, and other challenges that may limit full participation in digital learning. Achieving this vision requires the establishment of both technological and human infrastructure, which demands significant investment. However, without well-defined guidelines, such investments risk being implemented in a fragmented and ineffective manner. To mitigate this, a comprehensive and coherent framework is essential one that the National Digital Education Guideline for Schools and Teacher Colleges is designed to provide.

This guideline outlines a strategic approach to effectively integrating digital technologies across schools and teacher colleges, ensuring alignment with the learning outcomes stipulated in curricula. The primary goals include empowering learners to actively participate in the digital age and fostering lifelong learning. The guideline offers a clear roadmap

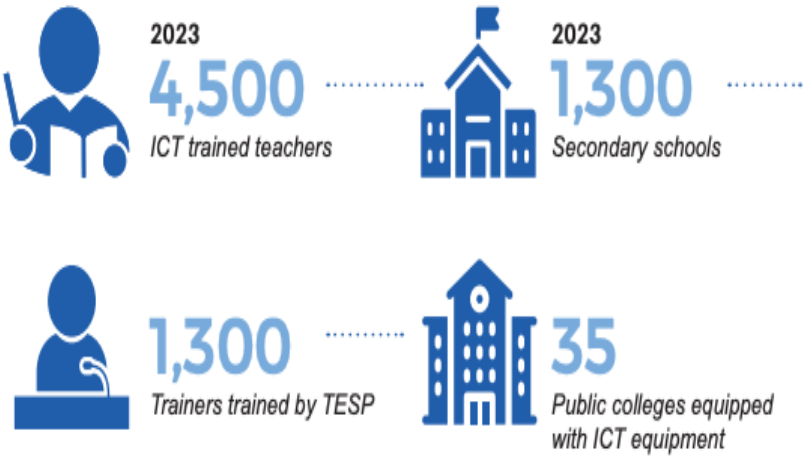
for educators, policymakers, and stakeholders to incorporate ICT into curricula in meaningful and impactful ways. It seeks to enhance the quality of education in schools and teacher colleges, improve learning outcomes, foster a culture of research, innovation, entrepreneurship, and digital literacy, and bridge the digital divide among learners and institutions from diverse backgrounds, genders and localities.

The Government has initiated several digital education projects and initiatives aimed at transforming primary and secondary education through the integration of ICT into the rapidly changing digital world. These digital education projects and initiatives include: Tanzania Beyond Tomorrow, Connect To Learn Project, Tanzania e-Schools, Bridge IT, African Digital Schools Initiative, e-Learning for Secondary Education, School Connectivity, Education Sector Development Programme, Tech-Supported, School-Based Teacher Continuous Professional Development (TCPD), Mafunzo Endelevu kwa Walimu Kazini (MEWAKA), Boost Primary Student Learning, Tanzania Secondary Education Quality Improvement (SEQUIP) and Teacher Education Support Project (TESP). These efforts have evolved, aligning with the country's broader goals of improving access to quality education and addressing technological disparities between urban and rural areas. At the secondary education level, secondary schools were equipped with 31,445 desktop computers and 10,932 laptop computers from these initiatives, and 4,276 (72.2%) of these secondary schools were connected to the national grid by 2023.



SEQUIP project emphasises the adoption of digitally enabled teaching of STEM subjects. Furthermore, the project provided ICT training to

4,500 of the intended 5,000 teachers from 1,300 secondary schools in 2023, aiming to enhance their competencies in utilising ICT for teaching and learning purposes. The TESP project has been initiated by the Government to improve teachers' training and build digital infrastructure in teacher colleges. TESP has provided training to more than 1,300 trainers and equipped all 35 public teacher colleges with ICT equipment connecting them to the National ICT Infrastructure Backbone (NICTBB). Furthermore, in 2021, all teachers in schools (274,812) and teacher colleges (1,352) were provided with tablets to improve teaching and learning.



The overall objectives of these projects and initiatives are to integrate digital technologies into schools and teacher colleges, by addressing issues such as the acquisition, use and development of ICT infrastructures; training of educators; development of curricula and learning materials; and assessment using digital technologies and tools for effective learning outcomes. These projects and initiatives also focus on using appropriate digital resources and tools, ensuring that they are aligned with learners' educational goals and needs. Through the strategic use of ICT tools and resources, learners in schools and teacher colleges will be able to develop 21st-century skills, including critical thinking, problem-solving, creativity and collaboration. The Government projects and initiatives are geared towards preparing learners for the challenges and opportunities of the digital education transformation in Tanzania.

1.1 Objectives

The main objective of the Guidelines is to enhance the integration and use of digital technologies in schools and teacher colleges in Tanzania. The specific objectives of the National Digital Education Guidelines for Schools and Teacher Colleges are to:

i. Promote the use of ICT in teaching and learning by having access to affordable, reliable, and secure digital infrastructure.

ii. Promote the use of digital resources, including e-learning platforms, mobile learning and interactive educational digital content.

iii. Enhance communication between teachers, parents and the community to create a supportive learning environment for all learners, including children with special needs.

iv. Foster digital literacy and skills among learners and prepare them to thrive in a technology-driven world.

v. Utilise digital technologies to enhance assessment, evaluation and feedback mechanisms that improve the overall quality of learning.

vi. Strengthen educators' and administrators' skills, knowledge and attitudes to incorporate digital tools effectively into teaching and administration practices.

vii. Promote the development and implementation of ICT-integrated curricula that equip learners with the necessary digital competencies.

viii. Promote research, innovation, entrepreneurship and partnership in digital education and training to keep pace with technological advancements and industry needs.

ix. Promote the inclusive use of emerging technologies such as Artificial Intelligence (AI), Augmented Reality (AR) and Virtual Reality (VR), Robotics and Gamification in instructional practices and teaching delivery.

1.2 Scope

The scope of the National Digital Education Guidelines for Schools and Teacher Colleges covers (a) pre-primary, primary, and secondary schools and (b) teacher colleges.

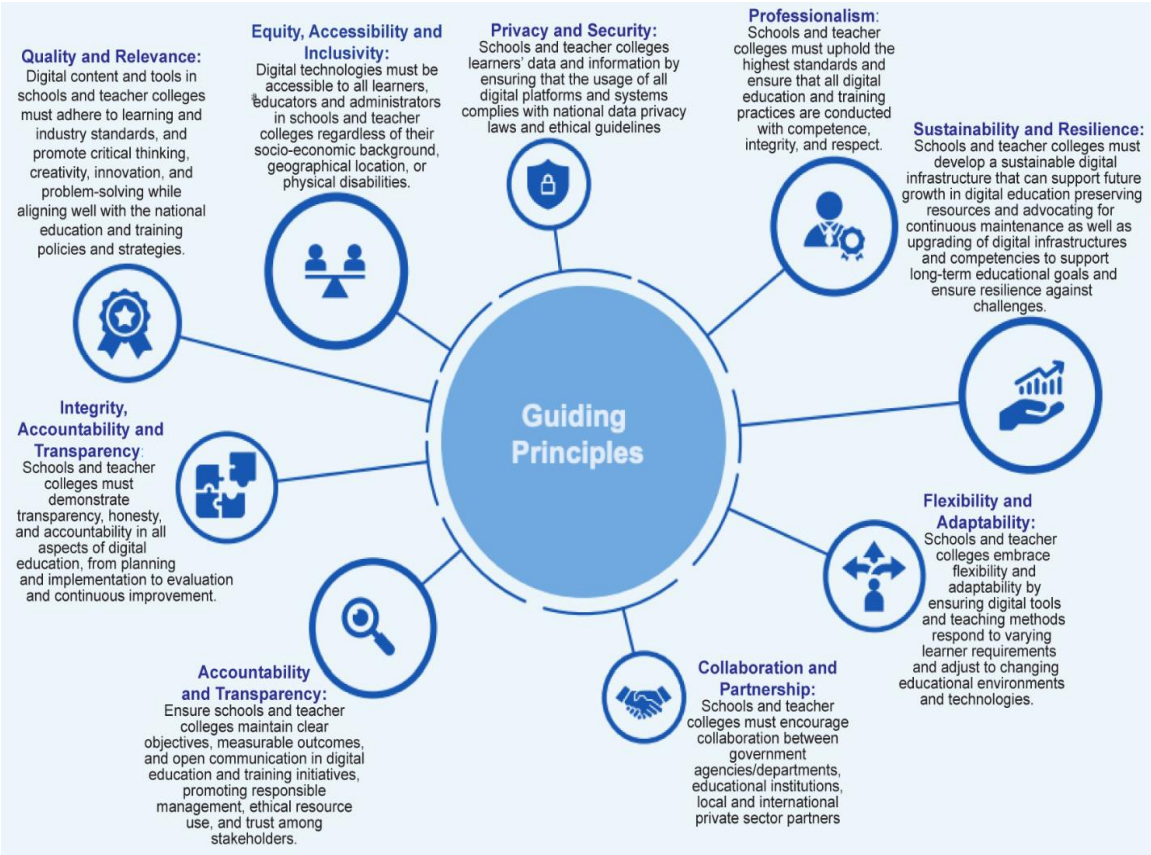
1.3 Guidelines Context

The National Digital Education Strategy 2024/25 - 2029/30 outlines a transformative vision for Tanzania's education system, emphasising the integration of inclusive and equitable digital technologies at all levels of education. The National Digital Education Guidelines for Schools and Teacher Colleges define various dimensions set forth to achieve the targets set in the National Digital Education Strategy 2024/25 - 2029/30 and the National Guidelines for AI in Education 2025. These Guidelines enable the realisation of the national goals set in Tanzania's key policies and legal frameworks including the Tanzania Development Vision 2025, National ICT Policy 2016, National Education and Training Policy (2014, edition 2023), Personal Data Protection Act 2022, Tanzania Digital Economy Strategic Framework 2024–2034, the Five-Year Development Plan III (FYDP III) 2021/22–2025/26, and Government Cyber Security Strategy 2022–2027. The National ICT Policy 2016, among others, underscores the Government's commitment to expanding digital infrastructure in schools and colleges, ensuring it is safe, reliable, and affordable while the Tanzania Digital Economy Strategic Framework (DESF) 2024–2034 emphasises the importance of digital literacy and ICT skills development in driving innovation and economic growth. Additionally, the Government Cyber Security Strategy 2022–2027 and the Personal Data Protection Act 2022 provide a framework to secure digital environments in education, ensuring the integrity of ICT systems and protecting learners' data.

In the regional and international context, the Guidelines are in line with the Continental Education Strategy for Africa (CESA), 2016 – 2025, which emphasises the use of ICT to improve access, quality and management of education and training systems. It aligns with the African Union Agenda 2063, which calls for the

integration of digital technologies in schools and teacher colleges to promote skills development and prepare youth for the digital economy. The UNESCO ICT in Education Policy Toolkit 2018, and ICT Competency Framework for Teachers 2018 (version 3) also provide guidance on the development of thematic policies and master plans on building teachers' capacities in making pedagogical use of digital technologies in enhancing teaching and learning in schools and teacher colleges. In line with the above policy and guideline documents, the National Digital Education Guidelines for Schools and Teacher Colleges are developed to promote equitable access to digital resources, enhance the quality of education, and prepare learners for a digital future.

1.4 Guiding Principles



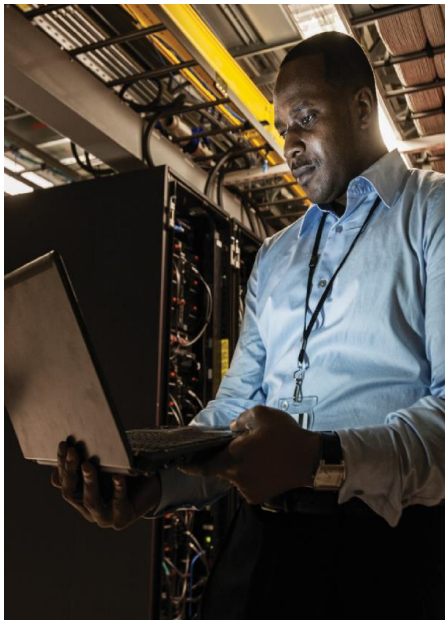
2.0 DIMENSIONS AND GUIDELINES

The National Digital Education Guidelines for Schools and Teacher Colleges consist of fourteen (14) dimensions, which are aligned with the National Digital Education Strategy 2024/25 - 2029/30 and the National Guidelines for Artificial Intelligence (AI) in Education 2024.

2.1 Infrastructure and Access

Robust ICT infrastructure and equitable access are foundational to modern education, enabling inclusive and effective teaching and learning in an increasingly digital world. The National Digital Education Strategy 2024/25 - 2029/30 highlights the importance of ICT infrastructure and access in driving digital transformation within Tanzania's schools and teacher colleges education system. To improve learning outcomes through the use of ICT, the Ministry of Education, Science and Technology has been facilitating the provision of ICT infrastructure and access to schools and teacher colleges. However, challenges related to inclusive and equitable ICT infrastructures and access persist. In view of this, the MoEST, through the Commissioner for Education, shall ensure that:

2.1.1 Internet connectivity



a. The status of ICT infrastructures (e.g. internet connectivity, devices) is determined annually in all schools and teacher colleges;

b. Schools and teacher colleges have computer networks in place for teaching and learning;

c. Educational and training networks for collaborations are established for schools and teacher colleges;

d. Schools and teacher colleges have access to reliable broadband Internet and alternative access in case of an outage;

e. The mechanism for affordable Internet services for schools and teacher colleges is established; and

f. The mechanism for affordable Internet services for schools and teacher colleges is operationalized.

2.1.2 Digital devices and services

a. The ICT standards for digital devices in teaching and learning are established for schools and teacher colleges;

b. Acceptable digital devices and services are in place for learners, educators and administrators in all schools and teacher colleges;

c. Schools and teacher colleges have assistive devices and services for learners, educators and administrators with special needs;

d. The mechanism for the provision of affordable digital devices and services in schools and teacher colleges is established; and

e. The mechanism for the provision of affordable digital devices and services in schools and teacher colleges is operational.

2.1.3 Digital educational content platforms

a. Schools and teacher colleges establish and use digital educational content platforms (e.g., Learning Management Systems (LMS), e-libraries, and digital content repositories) for teaching and learning;

b. A national database of available digital resources across schools and teacher colleges is established (registering, accessing, sharing, etc.);

c. A national digital educational platform for storing and sharing moderated digital resources for schools and teacher colleges is established; and

d. Schools and teacher colleges use an integrated digital educational platform to exchange digital content and services.

2.1.4 Digital facilities and power supply

a. Mechanisms for the provision of affordable digital facilities (e.g., computer labs, digital libraries, multimedia studios, virtual labs) for teaching and learning in schools and teacher colleges are established;

b. Affordable digital facilities for teaching and learning are available in all schools and teacher colleges;

c. All schools and teacher colleges are connected to a reliable power supply (national grid, solar, etc.) to support teaching and learning;

d. Power supply is available in digital facilities (e.g., labs,

classrooms, libraries) in all schools and teacher colleges to support teaching and learning; and

e. All buildings in schools and teacher colleges are power-ready (e.g., with enough electric sockets and switches) to facilitate ICT-enabled teaching and learning.

2.1.5 Access to digital education content and services

a. Schools and teacher colleges have equitable access to diverse, age-appropriate, relevant and high-quality digital education content and services;

b. Schools and teacher colleges have offline access to digital education content and services (e.g. via mobile technology-friendly solutions);

c. Schools and teacher colleges have online access to digital education content and services;

d. Mechanisms for zero-rating access to digital educational content and services are established across schools and teacher colleges; and

e. Mechanisms for zero-rating access to digital educational content and services are operationalised across schools and teacher colleges.

2.2 ICT Integration in the Curriculum

Integrating ICT into the curriculum is essential for preparing learners for the digital age. ICT tools can enhance learning experiences, making schools and teacher colleges more engaging and interactive, enabling learners of every career path to become active players in the local and global information society. In view of this, the MoEST, through the Commissioner for Education, shall ensure that:

2.2.1 Curriculum development and review

a. ICT is integrated into all curricula for schools and teacher colleges, digital skills (e.g. foundational digital skills, and specific subject ICT-related skills);

b. Schools and teacher colleges integrate ICT into lesson plans by identifying specific technology tools and necessary engaging and hands-on activities, such as

virtual simulations that enhance student understanding and application in daily life; and

c. The curricula are reviewed as per the indicated period and at any time when required, and schools and teacher colleges use ICT to support flexible learning pathways (e.g. blended learning).

2.2.2 Deployment and use of inclusive digital educational technologies

a. Age-appropriate and relevant digital education technologies for classrooms (e.g., smart boards, projectors, etc.) are deployed across all schools and teacher colleges;

b. Appropriate digital education technologies for administration (e.g. School management System – SMS and Learning analytics) are deployed across all schools and teacher colleges; and

c. Appropriate digital education technologies for administration are used across all schools and teacher colleges.

2.2.3 Instructional design and delivery, and learner engagement

a. Inclusive instructional design and delivery models (e.g., Technology, Pedagogy, and Content Knowledge (TPACK), Universal Design Learning (UDL) and Substitution, Augmentation, Modification and Redefinition (SAMR)) are integrated into curricula for schools and teacher colleges;

b. Inclusive instructional design and delivery models such as the TPACK, SAMR and UDL frameworks are integrated into instructional practices in all schools and teacher colleges (e.g. subjects like history could incorporate digital storytelling, and biology could incorporate video describing heart functioning to

enhance learning by complementing text-based notes and online forums);

c. Inclusive, Interactive and collaborative digital education technologies are used and maintained for teaching and learning by all schools and teacher colleges; and

d. Educators, learners and administrators across all schools and teacher colleges are trained in the use and maintenance of relevant inclusive, interactive and collaborative educational technologies.

2.3 Digital Content Development

Digital content development is vital in modern education, providing inclusive and engaging materials like videos, quizzes, and interactive text for online platforms. It improves learning by making complex concepts more accessible and engaging, enhancing understanding and retention. Educators in schools and teacher colleges must keep up with digital content trends as educational technology advances to offer locally relevant and effective instruction. In view of this, the MoEST, through the Commissioner for Education, shall ensure that:

2.3.1 Local digital content development and dissemination

a. All educators in schools and teacher colleges are trained to develop high-quality, relevant, interactive, inclusive and local digital content and integrate it seamlessly with the LMS to improve teaching and learning;

b. Educators in all schools and teacher colleges develop appropriate digital content that is interactive, responsive, inclusive, and compatible with the local context;

c. Teachers' Resource Centres and Hub Schools are capacitated to support educators in developing and using locally relevant digital content;

d. Educational-related publications (e.g., e-books, lesson notes, modules, etc.) produced for schools and teacher colleges are disseminated through designated public channels (websites, social media, etc.); and

e. Educational publications shared through appropriate channels are accessed and used by learners, educators and administrators in all schools and teacher colleges.

2.3.2 Digital content standards and use

a. Educators in all schools and teacher colleges use appropriate digital content that is interactive, inclusive, and compatible with the local context;

b. Digital content used by all schools and teacher colleges is regularly reviewed and updated based on the feedback of learners, educators and other stakeholders;

c. Awareness campaigns to promote the benefits of using digital content in education are conducted for learners and educators in all schools and teacher colleges;

d. A centralised digital content repository accessible to all educational institutions is established and operationalised;

e. Relevant standards (e.g., content quality, curriculum alignment, accessibility, and technological compatibility) for digital content in schools and teacher colleges are developed;

f. A centralised review body to approve digital content for use across schools and teacher colleges is strengthened; and

g. The usage and impact of digital content are regularly monitored and reviewed across all schools and teacher colleges.

2.3.3 Open educational resources

a. A tool for monitoring the usage and impact of OER in teaching and learning in schools and teacher colleges is developed and operationalised;

b. Schools and teacher colleges identify, adapt and use moderated subject-specific OER in teaching and learning; and

c. Awareness campaigns and training are conducted regularly among educators, learners, administrators, and other stakeholders to promote the use of OER in teaching and learning.

2.3.4 Massive open online courses

a. Educators and learners in all schools and teacher colleges are trained in creating, managing, delivering, and using Massive Open Online Courses (MOOCs) effectively;

b. All schools and teacher colleges develop relevant and inclusive MOOCs; and

c. All schools and teacher colleges adopt relevant MOOC platforms (e.g., Coursera, Udemy); and MOOCs are used for teaching and learning by all schools.

2.4 Digital Assessment

The integration of digital tools into assessment processes is vital for enhancing the efficiency, flexibility, and fairness of Tanzania's schools and teacher education ecosystem. These tools not only increase student engagement by enabling them to track their progress and understand their performance more quickly but also improve overall learning outcomes. The flexibility provided by digital assessments allows educators to adopt scalable solutions for large student groups, reducing administrative tasks while ensuring consistent and fair grading standards across the system. In view of this, the MoEST, through the Commissioner for Education, shall ensure that:

a. Digital tools for online and offline assessment (e.g., quizzes, exams, assignments) are in place and used across all schools and teacher colleges;

b. Digital assessment tools are accessible, inclusive and equitable to all learners and educators, including those with disabilities;

c. Educators and learners in all schools and teacher colleges are trained in the effective use of digital assessment tools;

d. Inclusive and adaptive technologies (e.g., text-to-speech, speech-to-text) and learning materials for multiple assessments (e.g. formative and assessment) are in place and used across all schools and teacher colleges; and

e. Quality assurance tools for ensuring reliability and fairness in digital assessment are established and used across all schools and teacher colleges.

2.5 Capacity Building

Integrating digital technologies into teaching and learning in Tanzania's schools and teacher colleges requires building the digital proficiency of educators, learners, technical personnel and administrators during pre-service and in-service. As highlighted in the National Digital Education Strategy 2024/25-2029/30, equipping these groups with essential digital skills is crucial not only for enriching the learning experience when in schools and teacher colleges but also for keeping pace with the rapidly changing global digital education landscape. In view of this, the MoEST, through the Commissioner for Education, shall ensure that:

2.5.1 Technical ICT personnel

a. Needs assessment to understand the state of technical personnel and skills gap is conducted across all schools and teacher colleges;

b. Education and training institutions are offering different short and long-term programs related to ICT integration in education (e.g., instructional technologies, multimedia development, digital content development etc.); and

c. Short and long-term certification programs related to ICT integration in education are created for educators, administrators and ICT technical personnel across all schools and teacher colleges.

2.5.2 ICT competency standards and digital literacy

a. An ICT Competency Standard for educators to support the integration of ICT in education in all schools and teacher colleges is established and implemented (e.g. UNESCO ICT competency framework for Teachers);

b. Educators have the required skills to meet ICT competencies standards in all schools and teacher colleges;

c. Institutions offering teacher education programs use curricula that prepare competent personnel to integrate ICT in teaching and learning in schools and teacher colleges; and

d. Educators in schools and teacher colleges have and use appropriate competencies to integrate ICT into teaching and learning.

2.5.3 Digital resource centres

a. Teacher Resource Centres and Hub Schools supporting educators and learners on digital literacy and skills development across all schools and teacher colleges are strengthened;

b. Teacher Resource Centres and Hub Schools nurture and coordinate innovations; and

c. Teacher Resource Centres and Hub Schools incorporate innovation, incubation and commercialisation services.

2.5.4 Staff continuous capacity building and retention

a. Inclusive training programs on digital literacy for educators, administrators, technical staff, policymakers and quality assurers are implemented across all schools and teacher colleges;

b. Training delivery modes such as workshops, webinars and e-learning platforms are used by schools and teacher colleges to cater for different ways of learning;

c. Performance-based rewards are introduced for educators, technical personnel and administrators who achieve distinguished milestones in ICT integration in education;

d. There are regular identification and celebration of successes in ICT integration in education, within and across the schools, and teacher colleges; and

e. Schools and teacher colleges engage digitally skilled educators in different opportunities, such as special national assignments (e.g. preparing exams and textbooks and handling data collection).

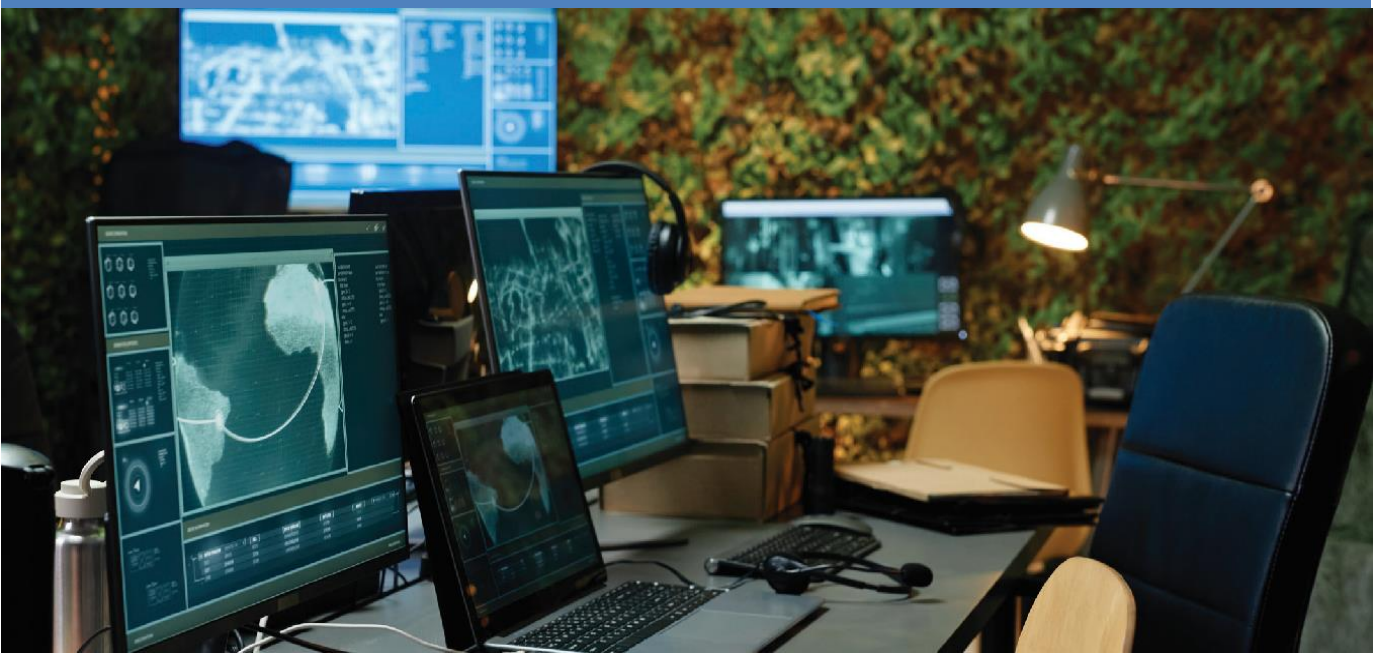
2.5.5 Exchange and recognition of programs on ICT in education

a. Partnership agreements (e.g. Exchange programs) are established between schools as well as teacher colleges with clear and measurable goals focused on improving ICT-based education;

b. Exchange opportunities for educators and administrators are facilitated to experience innovative ICT teaching methods and strategies used in partner institutions;

c. Mentorship programs are organised where educators from one educational institution can work with their local and international counterparts to improve skills for ICT integration in teaching and learning; and

d. Programs related to ICT in education (e.g., instructional design, educational technologies, etc.) offered by education and training institutions are recognised in the public service scheme.



2.6 Research, Innovation and Entrepreneurship

Research, digital innovation and entrepreneurship are essential in advancing digital education within Tanzania's schools and teacher colleges. The National Digital Education Strategy 2024/25-2029/30 highlights the importance of promoting research to create innovative teaching methods and digital tools tailored to the specific needs of the local educational landscape. This dimension encourages the development of an inclusive research ecosystem, bringing together schools and teacher colleges, researchers, industries, and government agencies to foster innovation and entrepreneurship mindsets in digital learning. In view of this, the MoEST, through the Commissioner for Education, shall ensure that:

2.6.1 Digital innovation

a. Promote digital innovations and entrepreneurship mindsets in schools and teacher colleges;

b. Mentorship programmes for learners and educators on innovations related to ICT in schools and teacher colleges are established;

c. An incentive scheme to recognise innovators who excel

in innovation on ICT in schools and teacher colleges is developed and implemented;

d. Exchange programmes to promote digital innovations on ICT in schools and teacher colleges are established;

e. A centralised online repository for innovations in ICT in schools and teacher colleges is established and operationalised; and

f. Digital innovation outputs are utilised in solving problems in schools and teacher colleges and/or society in general.

2.6.2 Institutionalise research, innovation and entrepreneurship

a. Digital-related research, innovation and entrepreneurship hubs/units/sections are established across all schools and teacher colleges;

b. An ICT research and innovation network for schools and teacher colleges is established;

c. Schools and teacher colleges are connected to an ICT research and innovation network; and

d. Teachers' Resource Centres, Hubs in Schools and Teacher colleges are strengthened in areas of research, innovation and entrepreneurship for schools and teacher colleges.

2.6.3 National self-sustenance in education technologies

a. Short and long-term local and international exchange and scholarship programs related to the integration of ICT in schools and teacher colleges are established;

b. Teachers' Resource Centres, and Hubs in Schools and Teacher Colleges are developing appropriate education technologies (e.g., mobile learning apps, games, and digital teaching media) for teaching and

learning in schools and teacher colleges; and

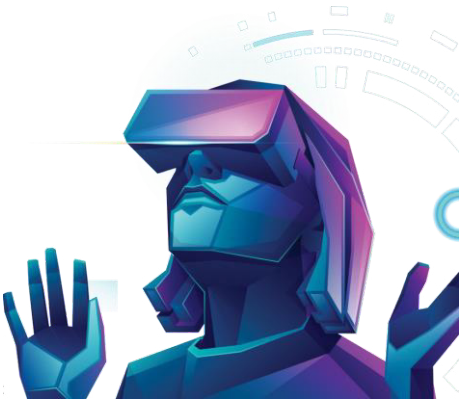
c. Digital innovation clubs for schools and teacher colleges are established and operationalized.

2.7 Emerging Technologies

The adoption of emerging technologies offers significant potential to enhance digital teaching and learning in schools and teacher colleges, as emphasised in the National Digital Education Strategy 2024/25- 2029/30. Key technologies such as AI, VR/AR, IoT, gamification, immersive learning, robotics, 3D printing and blockchain are highlighted as transformative tools that can revolutionise teaching and learning practices. By integrating these tools, Tanzania supports its broader digital transformation agenda, ensuring that the education sector keeps pace with advancements across other industries. In view of this, the MoEST through the Commissioner for Education, shall ensure that:

2.7.1 Integration of emerging technologies in teaching and learning

a. Emerging technologies related to education (e.g. AI, VR/AR, IoT, gamification, immersive learning, robotics and blockchain) are integrated inclusively into all curricula for schools and teacher colleges;



b. Emerging technologies related to education are integrated inclusively into instructional practices by all schools and teacher colleges; and

c. The best practices in the application of emerging technologies are inclusively shared and applied among

schools and teacher colleges.

2.7.2 The use of emerging technologies

a. A national roadmap for emerging technologies in schools and teacher colleges is established;

b. Schools and teacher colleges implement a national roadmap for emerging technologies; and

c. The utilisation of emerging technologies in schools and teacher colleges is enhanced and enforced.

2.7.3 Capacitating educators, technical personnel and communities

a. Educators and technical personnel in all schools and teacher colleges are trained in the use of emerging technologies;

b. Educators and technical personnel in all schools and teacher colleges are trained in the development of emerging technologies;

c. Fora (composed of parents, educators, learners, community members, innovators, researchers and other relevant stakeholders) for emerging technologies in schools and teacher colleges are established and operationalized at the institution, ward, district, regional and national levels; and

d. Workshops for sharing best practices in the application of emerging technologies in schools and teacher colleges are conducted.

2.7.4 Emerging technologies resource mobilisation

a. Public-private partnerships for the development and use of emerging technologies in schools and teacher colleges are established and operationalized; and

b. Budgets to support the use of emerging technologies in

schools and teacher colleges are institutionalised within the existing funding mechanisms (e.g. capitation, mainstream projects and programmes in the ministry and associated institutions).

2.8 Change Management

Change management is a crucial aspect of successful ICT integration in education and training. As schools and teacher colleges adopt new technologies and teaching methods, it is essential to have a structured approach that guides educators, administrators, and learners through the transition. Effective change management involves clear communication, training, and support to ensure that all stakeholders understand the benefits of the changes and are equipped to adapt. It also requires addressing resistance and necessary alignment of the new ICT initiatives with the institution's goals and continuously evaluating progress. In view of this, the MoEST, through the Commissioner for Education, shall ensure that:

a. A culture that encourages and embraces innovation, and flexibility with positive attitudes towards the integration of ICT in schools and teacher colleges is promoted.

b. Educators, learners, parents and other stakeholders are involved in all stages during the integration of ICT in schools and teacher colleges;

c. Institutionalise ICT integration in education in the existing schools and teacher colleges' instruments such as plans, communication strategies, and educators' fora;

d. Existing fora (fora of Regional Education Officers (REOs), District Education Officers (DEOs), Ward Education Officers (WEOs), etc.) are used to share experiences and lessons learnt on the integration of ICT in schools and teacher colleges;

e. Fora for ICT integration in schools and teacher colleges (e.g., online platforms, workshops, and collaborative projects) are established at school, college, ward, district,

regional and national levels to actively facilitate knowledge-sharing and networking opportunities;

f. All existing seculars and Guidelines related to ICT integration in education are reviewed to allow the responsible and effective use of ICT devices and associated services in teaching and learning in schools and teacher colleges;

g. Communities of Learning (CoL) and Practice (CoP) that facilitate showcasing, and sharing experiences and best practices related to ICT integration within and across schools and teacher colleges are established and operationalised; and

h. Awareness campaigns on the use of ICT in education are conducted for all educators, learners, administrators and other relevant stakeholders.

2.9 Partnership and Resource Mobilisation

Collaboration and partnerships between the government, educational institutions, and private stakeholders are critical for enhancing digital education and improving teaching and learning in Tanzania's schools and teacher colleges. This joint effort is essential in driving digital transformation in education and ensuring inclusive access to modern learning technologies for all educators and learners. For this reason, the MoEST, through the Commissioner for Education, shall ensure that:

2.9.1 Collaboration and partnership

a. Procedures for collaboration among stakeholders working on enhancing the development and use of ICT in schools and teacher colleges are strengthened;

b. Collaborations among all stakeholders working on enhancing the development and use of ICT in schools and teacher colleges are strengthened; and

c. A harmonised digital platform to facilitate partnerships among schools and teacher colleges, tech companies,

government bodies, and other stakeholders on ICT in schools and teacher colleges is developed and operationalized.

2.9.2 Resource mobilisation

a. Budgets to support the development, use and maintenance of ICT integration in teaching and learning in schools and teacher colleges are institutionalised within the existing funding mechanisms (e.g., capitation, education fund, mainstream projects and programmes, parents/guardians); and

b. Schools and teacher colleges solicit funds for ICT integration in teaching and learning from local, regional and international stakeholders.

2.9.3 Internships, apprenticeships and field trips

a. Internships related to ICT integration in colleges for educators and learners are established.

b. Apprenticeships related to ICT integration in colleges for educators and learners are established;

c. Internships and apprenticeships related to ICT integration in colleges for educators and learners are established; and

d. Field trips related to ICT integration in schools and teacher colleges are established and practised.

2.10 Governance, Management and Regulatory Framework

Governance, management, and regulation are important for ensuring the appropriate use and management of ICT in schools and teacher colleges. By establishing and implementing clear policies and procedures, schools and teacher colleges can manage ICT resources effectively, protect learners' data, and promote ethical use of ICT resources. This approach provides a foundation for the responsible and equitable use of technology in

schools and teacher colleges, benefiting both learners and educators. In view of this, the MoEST, through the Commissioner for Education, shall ensure that:

a. Schools and teacher colleges have established governance and management committees for overseeing the integration of ICT in teaching and learning;

b. Governance and management committees for overseeing the integration of ICT in schools and teacher colleges are functional;

c. Existing structures for the management of ICT resources in schools and teacher colleges are strengthened to enhance accountability and efficiency;

d. Quality assurance coordination units and related structures in schools and teacher colleges are strengthened and capacitated to ensure the quality of ICT integration in teaching and learning;

e. Existing quality assurance standards are aligned with ICT-integrated curricula and practices for schools and teacher colleges;

f. School's quality assurance and internal school quality assurance teams integrate ICT into quality control practices in schools and teacher colleges; and

g. School's quality assurance and internal school quality assurance teams ensure ICT is integrated into teaching and learning in schools and teacher colleges.

2.11 Data Management and Analytics

Data management and analytics are essential for improving the quality of teaching and learning in schools and teacher colleges. By appropriately collecting, storing and analysing data on various aspects, including student performance, teacher effectiveness, and resource allocation, schools and teacher colleges can identify areas for improvement and implement targeted

interventions. This data-driven approach can help ensure that all learners have access to equitable and high-quality educational opportunities. In view of this, the MoEST, through the Commissioner for Education, shall ensure that:

2.11.1 Education data management

a. A harmonised and centralised digital platform (EMIS) for sharing schools and teacher colleges' data is strengthened to cater for all schools and teacher colleges;

b. ICT Disaster Recovery and Business Continuity Plan (DRP and BCP) for schools and teacher colleges are developed and operationalised; and

c. Awareness campaigns to users on the functions and importance of the EMIS platform, DRP, and BCP are conducted.

2.11.2 Learning analytics

a. The real-time and collected digital education data are analysed in alignment with aspects identified to make learner follow-ups;

b. Learning analytics results are applied by all schools and teacher colleges to improve learning outcomes; and

c. Educators and administrators are trained on the usage of learning analytics to improve teaching and learning across all schools and teacher colleges.

2.12 Security, Privacy, Safety and Ethics

ICT security, privacy, safety, and ethics are crucial for protecting schools' and teacher colleges' learners, educators, and administrators' data. Implementing robust security and safety measures and promoting ethical use of ICT resources will enable schools and teacher colleges to safeguard sensitive information, prevent cyberbullying, and create a safe and positive

environment for teaching and learning. This focus on ICT security, safety and ethics also ensures the well-being of learners, educators, and administrators and the integrity of schools and teacher colleges. In this regard, the MoEST through the Commissioner for Education, shall ensure that:

a. The confidentiality, integrity and availability of schools and teacher colleges' data complies with relevant national policies, laws and regulations (e.g. The Data Protection Act 2022 and Cybercrime Act 2015);

b. Inclusive security, privacy, safety, and ethics modules are integrated into curricula for schools and teacher colleges. The inclusive use of ICT in all schools and teacher colleges is secure, safe, ethical and protects user privacy;

c. Schools and teacher colleges conduct awareness on digital safety, cybersecurity threats, privacy, data protection, ethics and self-internet use; and

d. ICT resources in schools and teacher colleges are securely accessed and used appropriately.

2.13 Technical Support and Maintenance

Educational institutions must collaborate closely with ICT service providers to ensure that digital tools, systems, networks and equipment are consistently functional and secure. Effective technical support minimises downtime, enhances the teaching and learning experience and ensures the sustainability of digital education initiatives. By establishing a framework for ongoing maintenance and responsive support, Tanzania’s educational institutions can provide an uninterrupted digital learning environment, equipping learners with the skills needed for the modern world. In view of this, the MoEST through the Commissioner for Education, shall ensure that:

2.13.1 Management of digital assets

a. Digital assets that support ICT integration in education and training are managed;

b. A digital platform for managing digital assets (e.g., School Information Systems) in schools and teacher colleges is strengthened; and

c. E-waste management in education involving responsible disposal, and recycling to promote environmental sustainability and reduce the ecological impact of outdated technology is effectively handled in schools and teacher colleges.

2.13.2 Preventive and corrective maintenance

a. Schools and teacher colleges conduct regular inspections of hardware and software maintenance (e.g., component replacement, repair, dust cleaning, etc);

b. Schools and teacher colleges conduct routine updates and upgrades to ensure that the system and its components are up-to-date and secure; and

c. Schools and teacher colleges identify and resolve issues within educational systems, and digital facilities after they occur to sustain effective learning environments, increase educator efficiency and improve student outcomes.

2.13.3 ICT technical support centres

a. Technical support centres (physical and virtual) to provide ICT support (e.g. installation of hardware, troubleshooting) to learners, educators and administrators across all schools and teacher colleges are established and operationalised;

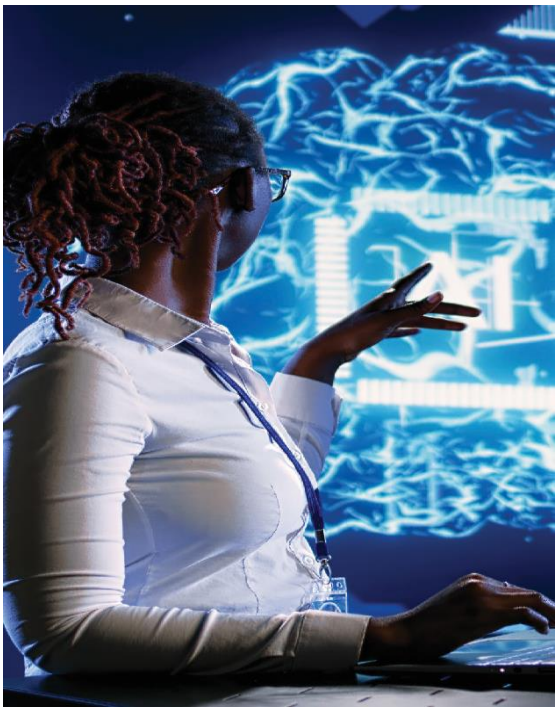
b. Technical reporting systems are used across all schools and teacher colleges;

c. Schools and teacher colleges use technical reporting systems to gather and respond to feedback on ICT integration in education;

d. The ICT technical support centres' networks for sharing expertise, experiences and best practices on ICT integration in education tools are established and used; and

e. Collaboration between schools and teacher colleges, and service providers to ensure ICT technical support is enhanced (e.g., availability of service-level agreements).

2.14 Use of Artificial Intelligence (AI)



Artificial Intelligence (AI) in schools and teacher colleges improves curricula delivery and assessment, enhances personalised learning, increases administrative efficiency, and prepares learners and educators for the evolving job market, with a strong emphasis on tapping into opportunities while considering ethical and data privacy. The comprehensive Guidelines for the use of AI in education are provided in the National Guidelines for AI in Education - 2024. In view of this, the MoEST through the Commissioner for Education, shall ensure that:

a. Schools and teacher colleges use AI tools and applications in compliance with national and international data privacy laws and regulations;

b. Schools and teacher colleges provide training to learners, educators, and administrators on the responsible and ethical use of AI in education;

c. AI tools and applications across schools and teacher colleges are accessible and used by all learners, educators, and administrators regardless of their socio-economic background or location;

d. AI learning tools and applications (e.g., Generative AI tools) in schools and teacher colleges complement and support traditional teaching, learning and administration;

e. Schools and teacher colleges use AI tools and applications to provide fair formative and summative assessments of student's performance, progress and continuous improvement;

f. Schools and teacher colleges ensure that AI assessment tools and applications are aligned with national and international educational standards and curricula;

g. Schools and teacher colleges have ongoing professional development programmes focused on the practical integration of AI tools and applications in the classroom;

h. Schools and teacher colleges prepare real-world examples of AI applications in fields such as education, Agriculture, healthcare, transportation, communication, and entertainment, helping learners connect AI concepts to their classroom and other daily experiences;

i. Schools and teacher colleges integrate AI literacy inclusively into the curriculum, helping learners and educators understand the opportunities and acquire

competencies relevant to the current and future job markets;

j. AI tools and platforms (e.g., tutoring systems) in schools and teacher colleges are available to facilitate teaching and learning;

k. Learners and educators across schools and teacher colleges have access to AI-powered educational tools and resources for diversified groups;

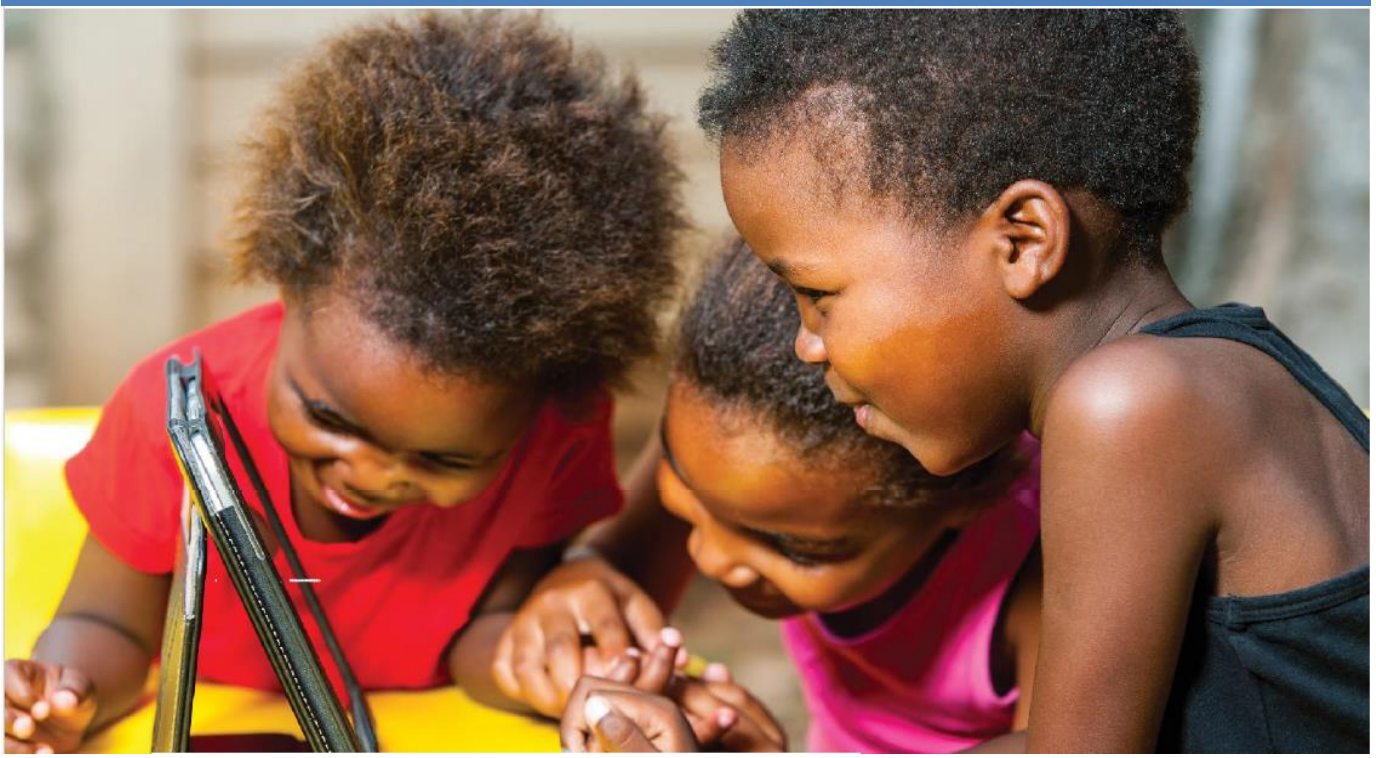
l. Schools and teacher colleges provide training to educators and school administrators on the ethical use of AI, best practices for data management, and ensuring that educators are equipped to handle sensitive data securely while understanding the role of data in AI-driven educational tools;

m. Educational innovators receive support through funding, incubation, and collaboration opportunities to develop and implement scalable AI technologies that advance digital education in schools and teacher colleges;

n. AI-driven innovations are developed and implemented to support personalised learning experiences, adapting content and teaching methods to meet the individual needs of students and improving engagement and learning outcomes;

o. Schools and teacher colleges engage in global partnerships with national and international organisations to facilitate knowledge transfer, capacity building, and access to cutting-edge AI technologies for improving schools and teacher colleges; and

p. Collaborate with donors, investors, local communities, and tech companies to secure sustainable funding for AI projects and initiatives in education.



3.0 THE ROLE OF STAKEHOLDERS

3.1 The Ministry of Education, Science, and Technology

The Ministry of Education, Science, and Technology (MoEST) will act as the leading authority, guiding and supervising the implementation of the National Digital Education Guidelines for Schools and Teacher Colleges. The Ministry's key responsibilities include:

a. Developing strategies and policies that support the integration of digital technologies in schools and teacher colleges, including setting objectives, timelines and evaluation criteria aligned with national education goals;

b. Facilitating collaboration with other ministries, educational institutions, private enterprises, local communities, and international organisations to ensure a coordinated approach to the integration of ICT in schools and teacher colleges;

c. Supporting research and studies related to the integration of ICT in schools and teacher colleges, including evaluation of

the effectiveness of digital education guidelines and associated strategies. It will also encourage the development, use and sharing of innovative technological solutions and practices that enhance teaching and learning in schools and teacher colleges;

d. Ensuring that all schools and teacher colleges adhere to national policies, strategies, legal frameworks and regulations governing digital education, such as the National Digital Education Strategy (2024), Personal Data Protection Act (2022), Cybercrimes Act (2015), and other policy frameworks for access and use of ICT resources;

e. Organising and coordinating training programs for educators, school and teacher colleges administrators, and other educational staff to ensure they can effectively use and manage digital technologies;

f. Collaborating with both domestic and international donors, as well as the private sector, to secure financial resources, technological tools and expertise to support the implementation of digital education in schools and teacher colleges;

g. Collaboration with other relevant ministries in prioritising the expansion of the digital infrastructure, including reliable internet access, ICT equipment, and electricity, particularly in underserved areas, to ensure equitable access to digital education resources; and

h. Developing mechanisms to continuously monitor and assess the progress of the Guidelines implementation, ensuring schools and teacher colleges comply with the standards and planned development and usage and adjust when necessary.

3.2 Ministry Responsible for Regional Administration and Local Government Authorities

This Ministry will play a crucial role in the decentralised implementation of the Guidelines. Responsibilities include:

a. Allocating funds at the regional and local government level to

support digital education initiatives, ensuring that schools have sufficient financial resources for technology infrastructure, maintenance, and digital materials;

b. Facilitating the deployment of digital infrastructure, including internet connectivity and ICT equipment in pre-primary, primary and secondary schools;

c. Ensuring that schools and teacher colleges meet the ICT standards and comply with the Guidelines set;

d. Organising and facilitating training programs to equip educators, administrators, and technical staff with the skills needed to manage and maintain digital systems in schools and teacher colleges;

e. Building partnerships with local technology providers and businesses, fostering collaborations that can provide technical support, equipment donations, or additional resources for digital education; and

f. Organising local outreach efforts to inform and engage communities, parents, and students about the value and benefits of digital education, aiming to build local support for the initiative.

3.3 Ministry Responsible for Communication and Information Technology

This Ministry will collaborate closely with MoEST to address the technical aspects of digital infrastructure in schools and teacher colleges. Responsibilities include:

a. Ensuring that all schools and teacher colleges have access to reliable and high-speed internet connectivity and that the necessary hardware and software standards are met;

b. Supporting the development and implementation of digital platforms that facilitate online learning, resource sharing, and administrative functions within schools and teacher colleges; and

c. Implementing measures to protect digital infrastructure, systems and data in schools and teacher colleges;

3.4 Regulatory and Compliance Institutions

The Commissioner for Education will serve as the primary regulatory authority overseeing the implementation of the National Digital Education Guidelines for Schools and Teacher Colleges. The roles and responsibilities of the Commissioner for Education include:

a. Enforcing the Guidelines and standards outlined in the National Guidelines across all schools and teacher colleges. This includes ensuring these institutions meet the required ICT infrastructure, systems, digital content, and educational quality standards;

b. Managing the accreditation and certification processes for digital education programs, platforms, and technologies used within schools and teacher colleges. This ensures that all digital education tools and programs meet the necessary educational and technical criteria/standards set;

c. Conducting regular audits and inspections of schools and teacher colleges to monitor compliance with the National Digital Education Guidelines for Schools and Teacher Colleges. These inspections will verify that institutions are adhering to the established standards and provide recommendations for corrective actions where necessary;

d. Implementing quality assurance mechanisms to continuously assess the effectiveness of digital education in schools and teacher colleges. This includes analysing performance data, gathering feedback, and adjusting regulatory frameworks to promote ongoing improvement in digital education delivery; and

e. Submitting reports to the MoEST, outlining the compliance status of schools and teacher colleges, the results of audits, and any recommendations for policy adjustments. This ensures that the regulatory framework remains aligned with national educational objectives.

3.5 Research and Innovation Institutions

Research and innovation institutions will play a pivotal role in

advancing digital education within the schools and teacher colleges ecosystem. Their responsibilities include:

a. Contributing to the development of innovative digital tools, educational practices, and pedagogical approaches tailored to schools and teacher colleges;

b. Researching to assess the impact of digital education on learning outcomes, student engagement, and workforce readiness in schools and teacher colleges; and

c. Promoting a culture of innovation within schools and teacher colleges, encouraging the adoption of new technologies and teaching methods that enhance the learning experience.

3.6 Academic and Professional Development Institutions

These institutions will be responsible for the training and professional development of educators and administrators in schools and teacher colleges. Their roles include:

a. Providing targeted training programs for educators and administrators on the integration of digital technologies into their teaching practices and administrative functions;

b. Assisting in the development of digital education curricula that are aligned with industry needs and the national education strategy; and

c. Offering certification programs for educators and administrators who have completed professional development courses in digital education.

3.7 Institutions Responsible for Schools and Teacher Colleges

Institutions involved in the support of schools and teacher colleges, such as TIE, TEA and NECTA, will ensure the implementation and use of digital technologies according to their roles. Their roles include:

a. Preparing annual work plans and budgets for ICT integration in schools and teacher colleges, ensuring that initiatives are well-coordinated;

b. Coordinating with schools and teacher colleges to ensure digital teaching methods are uniform and complementary across various educational levels;

c. Providing support mechanisms for learners transitioning from schools and teacher colleges to higher education, ensuring they are adequately prepared for digital learning environments;

d. Tracking and evaluating the effectiveness of ICT integration at the institutional level, making improvements as necessary; and

e. Ensuring that the institution has its own ICT policy and strategies aligned with national standards to promote digital learning.

3.8 Private Investors in Education

Private sector investors are encouraged to participate actively in digital education and training initiatives within schools and teacher colleges. Their roles include:

a. Providing funding, resources, and expertise to support the integration of digital technologies in their schools and teacher colleges;

b. Engaging in public-private partnerships to co-develop digital education infrastructure, tools, and platforms that benefit both the private sector and the public education system; and

c. Facilitating the transfer of innovative technologies and best practices from the private sector to all schools and teacher colleges, ensuring they remain at the forefront of educational excellence.

3.9 Tanzania Private Sector Foundation (TPSF)

The Tanzania Private Sector Foundation (TPSF) plays a strategic role in fostering collaboration between the private sector and educational institutions to enhance digital education in schools and teacher colleges. Their responsibilities include:

a. Facilitate partnerships between private sector companies and schools and teacher colleges to support digital education initiatives. These partnerships can include funding, technology provision, and expertise sharing;

b. Engaging the private sector entities to mobilise resources for the deployment of digital infrastructure, development of digital content, and capacity-building programs for educators and learners;

c. Advocating for favourable policies that encourage private sector investment in digital education and ensure that private sector needs are reflected in schools and teacher colleges' curricula and digital education strategies; and

d. Scaling of innovative digital solutions and practices within schools and teacher colleges helps to bridge the gap between industry requirements and educational outcomes.

3.10 Parents and Local Communities

Parents and local communities are involved in collaborating with other stakeholders to ensure that digital education initiatives are effectively implemented and sustained at the local level. Their responsibilities include:

a. Supporting infrastructure establishment in schools and teacher colleges at the local level, especially in areas like devices, electricity and internet connectivity;

b. Raising awareness about the benefits of ICT in education and encouraging parents and local communities to embrace digital learning; and

c. Allowing parents/guardians to digitally access student education progress.

3.11 Educators

Educators hold a unique position in driving educational transformation through the adoption of ICT in schools and teacher colleges. Their roles include:

a. Incorporate digital tools and resources into teaching practices to improve learner engagement and learning outcomes;

b. Regularly updates digital literacy skills by participating in professional development programs related to ICT integration in education; and

c. Utilising digital tools to assess learners' performance, providing more timely and effective feedback.

3.12 Learners

Learners are central to the success and key beneficiaries of digital education. These guidelines aim to empower them with essential digital skills and promote the active use of digital tools for improved learning. Their responsibilities include:

a. Engaging with digital tools and platforms to enhance their learning experience; and

b. Developing ICT skills that are essential for success in a modern, technology-driven world.

3.13 The Media

The media plays a crucial role in raising awareness and promoting the National Digital Education Guidelines for Schools and Teacher Colleges. Their responsibilities include:

a. Conducting awareness campaigns to inform the public about the benefits and opportunities of digital education in schools and teacher colleges;

b. Showcasing success stories and best practices in digital

education to encourage adoption and inspire other institutions;

c. Providing accurate and timely information to the public regarding the progress and impact of digital education initiatives in schools and teacher colleges;

d. Working with schools and colleges to develop media content that educates the public on ICT tools and their practical uses in classrooms; and

e. Collaborating with policymakers for supportive policies and funding that promote the advancement of digital education.

4.0 MONITORING, EVALUATION, AND LEARNING

Effective monitoring, evaluation, and learning (MEL) is vital for the effective implementation of the National Digital Education Guidelines for Schools and Teacher Colleges. A comprehensive list of targets and performance indicators aligned with these guidelines is outlined in the implementation plan for the National Digital Education Strategy 2024/25 - 2029/30. In view of this, the Ministry through the Commissioner for Education, shall:

a. Establish a digital monitoring, evaluation and learning system aligned with the Quality assurance framework (ICT integration in the education domain) and other reporting mechanisms to collect, analyse and report educational data in real-time and yearly to ensure the effective implementation of the Guidelines;

b. Promote data-driven decision-making and ensure that offline and real-time data collected from monitoring, evaluation and learning processes is analysed and used to inform policy changes, resource allocation, and program improvements;

c. Conduct regular assessments of how digital education initiatives

are impacting student learning outcomes and industry satisfaction; and

d. Foster a culture of continuous learning and improvement by encouraging educational institutions, administrators, and educators to regularly review feedback from monitoring, evaluation and learning activities, refine strategies, promote best practices, and ensure digital education initiatives stay relevant and effective.

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