**ICT in Education Policy**

The policy has eleven main policy statements as follows.

**1 ICT in Formal Education**

Improve preparation of the current generation of students for a workplace where ICT tools such as computers, Internet and other related technologies, are becoming ever more present. This will include technological literacy and the ability to use ICTs effectively and efficiently to provide a competitive edge in an increasingly globalized job market. The focus in formal education is:

* Ensuring primary, secondary, TVET and Higher Education educators use ICTs in their teaching and learning practices.
* Promoting the use of Open Distance and e-Learning (ODeL).
* Promoting the use of Open Education Resources.
* Promoting the teaching of ICT as subject matter.
* Raising awareness among students, teachers, and parents of the value of ICTs.
* Making ICTs available to all formal education levels, and enable students, at all educational levels, to use ICTs in their learning as a tool and as a methodology.
* Enabling all teachers and administrators to use ICTs as a management tool to support the educational process.
* Using ICTs to support the emergence of teaching and pedagogical student-centred approaches and encouraging research and collaborative learning.
* Facilitating access to a wider range of knowledge for students and teachers to support the teaching and learning process.
* Using ICTs as a tool to improve quality of education in all subjects at all levels and supporting the effort of the Education Quality Assurance Department in improving the quality of education.
* Ensuring the availability of infrastructure that is critical to successfully integrate ICTs at all levels of education.
* Establishment of the Rwanda Education and Research Network (RwEdNet) to ensure that scientists and researchers in higher learning institutions in Rwanda are connected to the regional and international body of research.

**2 ICT in Non-Formal Education**

ICT provides opportunities for self-learning and distance-learning independently of time or place. Enable citizens to have learning and development opportunities throughout their lives, anywhere—irrespective of age, gender or geographic location—thus supporting the country’s aspiration to build a knowledge-based economy. The focus in non-formal education is: 11

on the long term to be used as supplementary material, aligning it with the national curriculum, and revising the curriculum accordingly.

* Enabling teachers to use open educational resources, Massive Open Online Courses, create electronic content, and share knowledge experiences and practices using technology.
* Creating a centralized digital library/repository (Rwanda Educational Portal) of digital learning material to be accessed by all schools.
* Developing content and training manuals for pre-service teachers on using ICT in teaching and learning.
* Ensuring that learners and educators are empowered to encounter internet-related risks to privacy and content quality.
* Using ICTs as a tool to design tests and testing tools incorporating ICT based student assessment tools.
* Mandating and empowering the Curriculum developers to be the focal point of coordination for the development of electronic content

**3. Training and Capacity Building**

ICT-enabled training methods will be fully explored, including distance education, e-learning, and blended learning. Pre-service and in-service training will be offered on a continuous basis to enable staff and other stakeholders to keep up to date with technological and pedagogical developments. The focus is on:

* Providing pre-service training of teachers on the effective utilization of technology (software and hardware) in their teaching and learning.
* Ensuring that teachers are able to:
* access a wider range of high quality tools and resources to create innovative, challenging and engaging learning opportunities;
* plan, schedule and deliver more personalized and effective teaching and learning;
* communicate and collaborate more extensively and effectively with their students and parents;
* efficiently access and exploit a greater range of student performance data to analyze progress and act on it;
* Improve practice through greater professional collaboration in their own school, across the Rwanda and internationally.
* Providing effective ICT literacy training programmes for all teachers at all levels that promotes change and ensures quality.
* Supporting head teachers to establish their schools ICT vision, leveraging available technological infrastructure to better manage the school and foster modern teaching.
* Training curricula developers on creating and developing digital learning material.
* Developing general standards, guidelines, and certification requirements for trainers and training centres.
* Developing a cadre of technical expertise to manage and maintain ICT facilities at all levels and to optimize uptime.
* Ensuring that students are able to:
* access and exploit world-class educational tools and resources to improve the quality of engagement and learning outcomes;
* explore and develop their knowledge, skills and understanding through a more personalized learning experience;
* communicate and collaborate more extensively and effectively with their peers, teachers and community;
* experience a greater range of formative assessment to support their educational progress;
* Monitor, reflect on and manage their own learning.

**4. Management, Support, and Sustainability**

Necessary actions will be taken to plan and budget for ICT in Education projects, including innovative means to secure and optimizing requirements through public private partnerships. Additionally, income generating activities will be explored and conducted in order to minimize the Government expenditure on ICT in education initiatives. The policy will focus on:

* Making necessary budgetary provisions associated with the capital and operational costs of ICT facilities.
* Developing an income generating strategy in line with ICT in education programmes.
* Promoting Public-Private-Partnership through “Adopt-and-Sponsor a School” programme for ICT penetration in schools and higher education in terms of infrastructure, content development and delivery, and capacity building.
* Adopting a strategy for technical support and maintenance with adequate staff and budgets to service the needs of the centralized and decentralized levels of education.
* Providing in-service professional development opportunities for teachers to enable the use and creation of digital content and pedagogic integration.
* Providing professional development opportunities for school inspectors on the integration of ICTs in the teaching and learning process.
* Training educational administrators on ICT projects, including planning, managing, budgeting, resource management, and Monitoring & Evaluation.

**5. Open Distance and e-Learning**

The main purpose of ODeL is to increase the provision of educational opportunities, at all levels of education and training to improve access to, quality and effectiveness of the education system, and improve the efficiency of the educational sub-sector. The ICT in Education focus is on:

* Setting up an effective ICT support to ODeL
* Building capacity and competency in ODeL delivery including development of content, training of instructors and delivery of content.
* Enable a blended face-to-face and e-learning approaches as required for developing appropriate, effective and efficient means of meeting both national educational objectives and the needs of students.

**6. Multi-Stakeholder Partnerships**

Recognizing the value of multi-stakeholder partnerships, and valuing the opportunity that lies from the possible support from global corporations and development partners, the Government of Rwanda will engage in various modes of collaboration and partnerships. The focus is on:

* Engaging local, regional and global partners in efforts to integrate ICTs in education and to avail research and innovations to improve the education system.
* Creating an enabling environment conducive to global and local partners' investments and support to the education system including:
* Peer to peer research and collaboration.
* Twinning between public and private educational institutions to transfer and exchange best practices and share available resources.
* Support the integration of ICTs in education.
* Financing of ICTs in education.
* Encouraging the private sector companies to adopt schools to bring about school improvement.

**7 Research and Development**

Recognising experiences and lessons learned from educators and learners, the Government of Rwanda will facilitate participatory involvement of stakeholders at all levels and develop means of disseminating and analysing the feedback to improve learning outcomes. The focus is on:

* Conducting a needs assessment and establishing a mechanism for continually identifying best practices and gaps and researching innovative solutions to improve the education system.
* Creating a venue to facilitate a participatory approach enabling grass-root research and quality improvements, especially through showcases, seminars, workshops and conferences.
* Enhancing higher education institutions research and development capabilities.
* Supporting publication of publicly funded research under open access licences.

**8. Monitoring and Evaluation**

Monitoring and evaluation will be used to research and develop ICT integration, to learn from past experiences, to improve implementation and service delivery, to assess and allocate resources, and to assess results. The focus is on:

* Working in close collaboration with key stakeholders to establish criteria, indicators and benchmarks for assessment of implementation and impact of ICT in education.
* Creating processes and systems that promote information sharing, equity, transparency, and accountability for all stakeholders in the implementation of this policy.
* Using ICTs to support the efforts of different stakeholders in monitoring the performance of education process and institutions.
* Integrating EMIS in all stakeholders' activities for monitoring and evaluation.

* Conducting regular reviews and assessments of the value added and impact of the multi-stakeholder partnerships on the education system at all levels.
* Promoting the use of community learning and information centres and libraries, and open and distance learning centres to support literacy and learning opportunities to all Rwandans. Expand activities to include the use of video, radio and TV.
* Promoting the use of ODeL.
* Creating and leveraging partnerships with private and community-based organizations to provide learning opportunities and improve ICT literacy for all Rwandans.
* Leveraging ICT infrastructure in schools to encourage and support afterschool programmes to target students, out-of-school leavers, and local communities to develop life and ICT skills, and provide other lifelong learning opportunities.

**9. Access and Equity**

This policy recognizes ICTs to be a cross-cutting area aimed at equality and equity to all Rwandan citizens. The focus is on:

* Using ICTs to provide educational opportunities to all Rwandan citizens regardless of gender, age, geographical location, or special educational need.
* Providing a basic ICT model to all schools and community centres regardless of gender, age, geographical location, or special educational need.
* Providing access to ICT in learning centres for people in very remote, rural, and economically disadvantaged areas.
* Promoting a “Bring Your Own Device” (BYOD) programme for teachers and students in order to increase ICT penetration at all levels.

**10. Infrastructure**

Efforts will be made, to provide the needed infrastructure to the remote and underserved areas using technological solutions that are suited to local needs and conditions. The focus is on:

* Providing all formal and non-formal education institutions with the essential infrastructure to facilitate the adoption of ICTs within the education system.
* Developing infrastructure in close collaboration and coordination with relevant ICT stakeholders and partners, to optimize synergy and cost-effectiveness.
* Explore alternative energy solutions where necessary.
* Ensuring that well-trained and capable human resources are available to maintain ICT in Education infrastructure.
* Defining a replicable, scalable, reliable and sustainable technology model to be introduced in schools.
* Developing and adopting assistive technologies for people living with disabilities.

**11. Curriculum design, delivery and assessment**

For successfully integrating ICTs in education, curriculum revisions must be continually conducted, along with training on ICTs and ICT-enabled teaching and learning taught as both a subject and pedagogy using learner-centered and interactive methods. The focus is on:

* Providing curriculum at all levels of education.
* Promoting a blended learning approach and establishing appropriate mechanisms and guidelines for regulating the development and use of electronic content.
* Exploring options for obtaining copyrights of existing electronic material in the medium term.
* Creating and developing Rwanda-specific national electronic content, in all subjects