[**The role of ICT in Education in the Realization of Vision 2020**](http://elearning.reb.rw/mod/forum/discuss.php?d=32)

Information Communication Technology is the power that has changed many aspects of the lives. The impact of the ICT on each sector of the life in the realization of Vision 2020 has been enormous. The way these fields act today is different as compare to their pasts.

The integration of ICT in our everyday life transforms our relationship to information and knowledge. It also modifies citizens’ engagement with public services and the interaction between schools and learners.

* Using ICT in education especially primary, secondary, TVET and higher education enables student and teachers to make research easily.
* It can facilitates the access to wide range of knowledge for students and teachers which support the teaching and learning process that we need to achieve in vision 2020.
* Using ICT tools like computers, internet and other technology helps to improve the quality of education where students were not scared to use those tools in class and their home.
* ICT can helps to promote learner centered approach as main target competence based curriculum.
* It reduces the negatives attitudes about the use of electronic tools in classroom.
* It promotes in independent learning which can lead to the achievement of vision2020.
* ICT in education promotes e-learning and use of e-leaning materials.
* It also promotes e-commerce and trade promotion program for goods and services.
* It encourages and builds human resources.
* To implement the principle of life-long learning / education.
* To increase a variety of educational services and medium / method.
* To promote equal opportunities to obtain education and information.
* To develop a system of collecting and disseminating educational information.
* To promote technology literacy of all citizens, especially for students.
* To develop distance education with national contents.
* To promote the culture of learning at school (development of learning skills, expansion of optional education, open source of education, etc.)
* To support schools in sharing experience and information with others.

The opportunities offered by the use of technology in education are many. It transforms the pedagogy and can lead to an improved and more engaging learning experience. These effects are not limited to the classroom, for example, the transformation of distance education into e-learning and blended learning offers new options for delivery and new opportunities for in-service teacher training and support. The capacity of ICT to build borderless networks represents possibilities for innovative peer learning across territories and countries. In addition to redefining access to knowledge and instructional design and provision, the penetration of ICT in all dimensions of economic, social and cultural activities has far-reaching implications in terms of the skills required to become an active member of society. The ability of students to utilize ICT has become a new requirement for effective education systems.

Beyond education, ICT can also represent a new source of economic growth and a powerful tool for social transformation. Hence, through their economic and social effects, ICT contribute to creating a knowledge society and economy.

In this context, a major concern for policy-making relates to the modalities for designing and implementing plans and strategies likely to produce such results. This publication aims at addressing precisely this question by illustrating, on the basis of case studies analysis, the importance of having clear policy goals, and of their translation into appropriate strategies and plans. The country experiences reviewed in this publication suggest that effective ICT in education policies depend on three main pillars, namely: access to ICT infrastructures and equipment; teacher capacities; and monitoring.

Access to equipment, networks and quality resources is a prerequisite for the deployment and utilization of ICT. Therefore the integration of technologies in the education system requires a supportive environment. This underlines the importance of policy consistency and the need to take advantage of a broader movement of ICT infrastructure development. In many countries this also implies forging innovative alliances between the public sector and private companies which often control the ICT sector. In that respect ICT in education policies offer a rich example of the potential for public-private partnerships.

Once the technological infrastructure is in place, a major challenge relates to the capacity of teachers to take advantage of the tools and new teaching opportunities offered by ICT. This involves developing teachers’ professional capacities but also to establish adequate support mechanisms. Furthermore, beyond technical competences and coaching, effective utilization of technologies in the classroom ultimately depends on the motivation of teachers.

The major challenge always remains to transform teacher training into improved teacher practices in the classroom.

The best incentives for teachers come from the evidence of improved and more efficient teaching practices. Yet, addressing this challenge often involves a cultural change for teachers which cannot always happen rapidly

Effective implementation of public policies requires proper monitoring. The introduction of technologies into the education system on a large scale involves setting up mechanisms and tools to monitor implementation processes and outcomes. In particular, it is essential to develop approaches and indicators to monitor how ICT investments and policies affect teaching practices and students’ abilities and knowledge. In other words, policies on ICT in education require the complementing of existing educational management information systems (EMIS) by specific data and indicators.

ICT can have a transformative effect on education regardless of the economic conditions, in very advanced school systems as well as in poorly resourced ones. The choice of the policy mix varies according to particular circumstances but the vision and the potential of ICT to transform education is universal. This is the key message that this publication attempts to articulate.