The Challenge and the Opportunity: A Changed World with Unchanged Classrooms

If you compared our world today with the world one hundred years ago, you would encounter amazing advances in science, commerce, health care, transportation, and countless other areas. But if you were to compare the classroom of a hundred years ago with an average classroom today, you would recognize it immediately: students lined up in rows, paper and pencil in hand; a teacher at the blackboard jotting down important facts; students furiously copying all that is written and said, expecting to memorize the facts and spit them out on an exam.

– Harvard University Report, 2002

The demands of the modern society represent a unique opportunity for education systems. Schools that traditionally have taught students to store and recall information from specific content areas must now respond to the challenge of preparing young people for integration and success in societies and economies driven by the transformation of knowledge into new ideas and applications.

Classrooms must serve as places of collaboration and discovery where information and communication technologies (ICTs) can be integrated into the learning process. Technology can also be used to facilitate the acquisition of more general skills such as critical thinking, communication, and life-long learning. New technologies are tools that can be used to improve most areas of education.

ICT and the EFA and Millennium Development Goals

Information and communication technologies are of paramount importance to the future of education. ICT in education initiatives that focus on the following areas are most likely to successfully contribute to meeting the EFA and Millennium Development Goals:

- **Increasing access through distance learning** – ICTs can provide new and innovative means to bring educational opportunities to greater numbers of people of all ages, especially those who have historically been excluded, such as populations in rural areas, women facing social barriers, and students with disabilities.

- **Enabling a knowledge network for students** – With knowledge as the crucial input for productive processes within today’s economy, the efficiency by which knowledge is acquired and applied determines economic success. Effective use of ICTs can contribute to the timely transmission of information and knowledge, thereby helping education systems meet this challenge.

- **Training teachers** – Large numbers of school teachers will be needed to meet the EFA and Millennium Development Goals for education. The use of ICTs can help in meeting teacher training targets. Moreover, ICTs provide opportunities to complement on the job training and continuing education for teachers.

- **Broadening the availability of quality education materials** – Network technologies have the potential to increase the availability of quality educational materials. Their interactivity and global reach allow for customized sharing of knowledge, materials, and databases, quickly and cheaply over long geographic distances. Furthermore, online resources offer teachers access to a vast and diverse
collection of educational materials, enabling them to design curricula that best meet the needs of their students.

- **Enhancing the efficiency and effectiveness of educational administration and policy** – New technologies can help improve the quality of administrative activities and processes, including human resource management, student registration, and monitoring of student enrollment and achievement.

**Success Story: Interactive Radio Instruction**

Interactive Radio Instruction (IRI) is an instructional tool designed to deliver active learning by radio. Audio lessons are developed to guide the teacher or facilitator and students through activities, games, and exercises that teach carefully organized knowledge and skills. During short pauses built into the radio scripts, teachers and students participate in the radio program, reacting verbally and physically to questions and exercises posed by radio characters. In this way, IRI exposes learners to regular, curriculum-based content and models effective teaching and activities for teachers. IRI delivers daily 30-minute radio broadcasts that promote active learning and are designed to improve educational quality and teaching practices in schools as well as to deliver a complete basic education to learners not in school.

Based on experience in Sudan and Somalia, student assessment results for IRI learners in fragile states are encouraging. Those students who participated in IRI classes had a distinct advantage over their non-IRI peers, and this advantage was consistent across subjects. The greatest advantage was observed in English, where the average IRI student was seen to achieve a mean score than 29 percentage points higher than that of their control school peers, followed by mathematics and local language literacy.

**Success Story: MK Connects**

USAID developed the e-Schools project (2003 - 2008) to distribute donated computers and install computer labs in all Macedonian primary and secondary schools, and recognized the program would be most beneficial if the labs were connected to the Internet. Thus the Macedonia Connects (MK Connects) project was also developed, to connect 495 sites, including every primary and secondary school, as well as additional priority sites such as university dormitories to the Internet.

~Hundreds of teachers have participated in interactive professional development activities focusing on school-based teacher assessment, integrating ICTs into the classroom, new pedagogical tools, math and science education, and positive learning environments. Teachers have embraced new methods to engage their students in active learning, integrate ICTs into their classes, and conduct student assessment.

**Success Story: Bridgeit**

In September 2007 the Bridgeit Tanzania project was launched as a replication of a successful project in the Philippines known as text2teach. The program’s goal is to significantly increase the quality of teacher instruction and achievement among primary school boys and girls in math, science, and life skills through the innovative use of cell phone and digital technology. Locally, the Bridgeit Tanzania project is known as Elimu kwa Teknolojia (or ET), which means “Education through Technology.”

The Bridgeit project adapts and creates mathematics, science and life skills videos and establishes the necessary technological infrastructure for teachers to access the content in their classrooms. Bridgeit also trains teachers and provides them with comprehensive teacher’s guides and learner-centered lesson plans in order to enhance student-teacher interactions, ensure student participation, and guide the teachers on how to effectively use and integrate the videos. During this two-year “pilot” project, Bridgeit will reach a minimum of 600 primary school teachers and a minimum of 10,000 primary school girls and boys (with at least 50% girls) in 150 Tanzanian public schools.