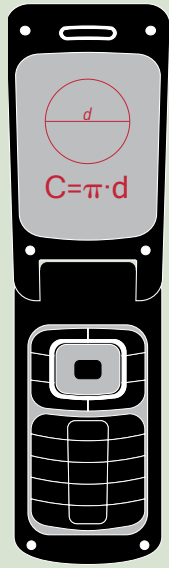


Harnessing the



POWER OF TECHNOLOGY

for Rural Education

BY THE
HONORABLE
JUMANNE A.
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A TOTAL OF 150 SCHOOLS ARE PARTICIPATING IN the pilot phase of a project designed to harness the power of technology to fill critical gaps in education in Tanzania. Called *Elimu kwa Teknolojia*, or “Education through Technology,” the initiative uses cell phone and digital technology to increase the quality of instruction in schools and increase achievement among primary school pupils in math, science and life skills.



More than 1,240 teachers have been trained to use the Bridgeit technology and develop more interactive classroom activities. As a result, some 24,890 students in 150 schools across Tanzania are already benefitting from enhanced learning opportunities.

PHOTOS (LEFT TO RIGHT) BY JOSEPH MATTOGORO, FARIDA NYAMACHUMBE AND JOSEFINA NATIVIDAD



HOW DOES IT WORK? IMAGINE A GROUP OF 50 FIFTH-GRADE students assembled for a math class. At the front of the classroom is a television. Following a brief introduction by their teacher, the students watch as a short video — broadcast on the TV from a mobile phone — shows them how to calculate the circumference of a circle and create a pie chart. Afterward, students respond to questions posed by their instructor.

An adaptation of the successful Bridgeit program in the Philippines, *Elimu kwa Teknolojia* is being supported through a US\$2 million grant from the U.S. Agency for International Development (USAID) and implemented by the International Youth Foundation in close partnership with the Tanzania Ministry of Education and Vocational Training (MoEVT). Other partners include: the Forum for African Women Educationalists (FAWE), Nokia, Nokia Siemens Networks, the Pearson Foundation and the Vodacom Foundation.

By April 2009, more than 24,000 primary school students and 1,200 teachers had been reached through the initiative. In both urban and remote rural areas, where teachers often lack access to further job training opportunities and where one book can be shared among five to 10 students, *Elimu kwa Teknolojia* offers a potentially low-cost and scalable solution to such challenges.

TOWARD A VISION FOR THE FUTURE

Elimu kwa Teknolojia is one component of a comprehensive national strategy being spearheaded by the MoEVT to improve the quality and accessibility of education and to prepare young Tanzanians to assume their roles as productive, fully engaged citizens. As educators, we recognize that education holds the key to reducing poverty, improving health, creating a competitive economy and enhancing the quality of life for all Tanzanians.

Current education reform measures incorporate a range of policy initiatives focusing on macro-economics, poverty eradication, higher education, vocational training and science education. Guiding these sector-specific policies is Tanzania Vision 2025, a framework put forth in 1995 for achieving high levels of human development in the nation by the year 2025. This vision for Tanzania's future centers on five key attributes: peace, high-quality livelihoods, good governance, a well-educated people and a competitive economy capable of producing sustainable growth and shared benefits.

An important step toward realizing the nation's goals for 2025 is the National Strategy for Growth and Reduction of Poverty (NSGRP), known in Kiswahili by the acronym MKUKUTA. The NSGRP seeks to contribute to the realization of the Millennium Development Goals as internationally agreed upon targets for reducing poverty, hunger, diseases, illiteracy, environmental degradation and discrimination against women by 2015.

Given the critical importance of education in achieving these goals, MoEVT's mandate is taking the appropriate steps to get there. Our key priorities, as articulated in the Education Sector Development Programme, are: decentralizing the management of educational institutions to increase efficiency; enhancing teacher training and the provision of adequate learning materials; promoting science and technology as a means of enhancing job readiness; and engaging the private sector in innovative means of strengthening both formal and non-formal education.

FOCUS ON PRIMARY EDUCATION

In keeping with the Education for All movement, first established in 1990 and dedicated to universal basic education, a central focus of our efforts is improving



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primary education, particularly in rural areas. Seventy percent of education resources from 1998 – 2015 are devoted to this critical area, with the goal of achieving universal primary education by 2010. While noteworthy gains have been made in recent years — with net enrollment having increased from 59 percent in 2000 to 97 percent in 2008, significant challenges related to educational content and school retention remain.

The reasons for limited school retention are many and range from poor infrastructure and crowded classrooms to a lack of qualified teachers and limited school supplies. It is against this backdrop that the MoEVT began pursuing the use of Information Communication Technologies (ICTs) to expand educational opportunities and enhance the quality of content delivered.

OPPORTUNITIES AND CHALLENGES

Part of what makes *Elimu kwa Teknolojia* so compelling is the coming together of multi-sector partners around a common goal. This leveraging of resources and expertise will enable us to reach greater numbers of young people with quality educational materials through a relatively low-cost delivery system. Moreover, through the successful implementation of Bridgeit in the Philippines — where nearly one million pupils have been reached in rural and urban schools since 2003 — we benefit from the adaptation of a proven model.

However, we recognize that Tanzania presents its own set of challenges in implementing a technology-based solution. Among these is the lack of electricity

in many rural schools, particularly in the western regions, and poor infrastructure, which inhibits the transportation of equipment. Given these limitations, we opted to focus first on rural, and some urban, schools with electricity, with the hope of harnessing solar power to meet energy needs in the future.

Another challenge has been the need to adapt or create video content appropriate to the educational needs of Tanzanian children. As a first step, we gathered key stakeholders—MoEVT representatives, educators and curriculum experts—to identify needs and review existing digital materials. Where video content was available from the Pearson Foundation and the Bridgeit initiative in the Philippines, it was translated into Kiswahili. New content—including more than 100 math, science and life skills videos—is also being created to meet national curriculum requirements. For example, science segments were produced with a focus on HIV/AIDS education. Similarly, life skills videos are being made, emphasizing personal responsibility and healthy decision-making with the goal of empowering girls to stay in school and become successful.

A teacher-training component equips teachers with the skills necessary to engage students through participatory and interactive methodologies. Our goal is that teachers will use the videos and accompanying lesson plans as tools to become better teachers.

Following the pilot, we seek to scale up the program nationally within the educational system in order to reach the greatest possible number of children and teachers. **Y**

The Honorable Jumanne A. Maghembe is Tanzania’s Minister of Education and Vocational Training.