

ICT in Education: Content Issues as Kiswahili reigns

by: Aloyce Menda

Today, there are more people within the Education sector in Tanzania that are aware of the benefits of the use of Information and Communication Technologies (ICTs) than it was probably just over 12 months ago. But, despite the reported rapid adoption of ICT into administration, education and several sectors of the economy, the greatest challenge still remains; how can ICTs be demystified to appeal to the majority of the local population who still view them as tools designed for the minority elite.

Kiswahili is spoken by over 80 million people in east and central Africa, making it one of the most widely spoken languages in sub-saharan Africa. Students in Tanzania and Kenya are taught Kiswahili as a subject in schools. Yet, efforts have just but began to make Kiswahili "internet and ICT ready" for the benefit of the community that speaks this it is arguably the richest language in the region in terms of culture, semantics and phonology. It is believed that the readiness of Kiswahili in ICT has a direct impact on the development of ICT in Education, particularly in Tanzania where most government owned schools still use this language as a medium of instruction.

Experts argue that in the top-ten inhibitors to the use of ICT in Education the first two would be the language and the cost. For instance to roll out a network of all secondary schools in the country would require billions of shillings in infrastructure and software. For this reason, therefore, several models have been suggested including that of the use of open source and the so called thin clients, which are basically low specification computers largely depending on a much stronger server.

To take on this challenge, some academicians at the University of Dar es Salaam and officials at the Tanzania Commission for Science and Technology (COSTECH) joined forces and formed the Open Kiswahili Localization Team, also known as KiliNux, from the combination of two words – Kiswahili and Linux aimed at e-enabling Kiswahili as a way of demystifying ICTs. Early this year the team presented their first edition of a Kiswahili spellchecker (<http://www.o.ne.tz/spellchecker>) that works natively with Jambo OpenOffice.org.

The spellchecker has been developed as the result of the compilation of numerous Kiswahili word lists. Jambo Spellchecker contains a total of 70.000 Kiswahili words and is released as free software. The wordlists have been compiled based on studies by numerous resources including: Dr. Jason M. Githeko of Egerton University, Njoro, Kenya (<http://www.egerton.ac.ke/ict/kiswa.php>) who contributed 48340 words; Prof. D.P.B. Massamba, and Prof. A.M. Khamisi of University of Dar es Salaam' Kiswahili Institute (TUKI) who contributed 18327 words from the TUKI English-Swahili Dictionary.

Others contributors include Dr. Martin Benjamin of the Kamusi Project (<http://www.yale.edu/swahili/>), who contributed 15418 words, Professor Alberto Escudero-Pascual and Dr. Kevin P. Scannell of Corpus building for minority languages (<http://borel.slu.edu/crubadan/>) who contributed more than 8008 words.

The Kamusi Project is an ongoing work of collaborative scholarship that is developing a free online dictionary and learning resources for Kiswahili. Established in 1994, it is the world's most-used resource for the Kiswahili language, and the first result for Kiswahili delivered by most Internet search engines (<http://www.yale.edu/swahili/>).

Tanzania is leading all countries of this region in use of Kiswahili by population and application in state affairs, business and social activities. Kiswahili is the official national language of 34.6 million people of Tanzania. The African Union (AU) approved Kiswahili as one of its official languages last year. Other official languages of AU are English, French, Portuguese and Arabic.

All pupils taking primary education - except few in private schools - learn all subjects in Kiswahili for seven years of basic education, making the language so critical in the implementation of ICT in Education. However, this changes at higher levels of learning when the language becomes only a subject and not a medium of instruction in secondary schools and all higher learning institutions.

On the other hand, the English language is taught as a subject in all public primary schools but becomes a medium of instruction in all subjects after the seven years of primary education. This system of education has been criticized in several forums but the government has refused to change it.

The critics suggest that there is need for policy change in the Education sector as regards the use of Kiswahili. For consistency, they propose that one language (either Kiswahili or English) be used as a medium of instruction from Primary level to the University. But while this debate continues, a new challenge has emerged when recently the Tanzanian government announced its intention to integrate ICT as a compulsory subject and a training tool in all secondary schools.

The Tanzanian Ministry of Education and Culture (MoEC) unveiled its project for compulsory ICT training in secondary schools during a stakeholders workshop held in Dar es Salaam early this year whose theme was "The future of ICT in Secondary Schools - Strategizing for Implementation".

The workshop gathered participants from a broad spectrum of ICT stakeholders in Tanzania, including eighteen students from five selected secondary schools in Dar es Salaam. The workshop which was conducted in a highly participatory approach provided a platform for stakeholders in the sector to present useful input towards a strategy for implementation. It was a unique workshop that probed and eventually set a foundation for integrating ICT in secondary education in Tanzania Mainland.

The question of adopting ICT in a foreign language (English), while majority of population in Tanzania can only speak, read or write in Kiswahili was raised by some participants together with other burning issues. "How can ICT bring about rapid development in Tanzania by adopting it in our secondary schools, while most of the content is English, a language still considered foreign?" A sociologist asked other workshop participants.

"How can ICT develop Tanzania by adopting it in English in secondary education when only less than 12 per cent of the relevant age group proceeds to secondary schools?" That was another question to participants that came from a NGO leader amongst them, who went on to suggest that there is need to develop sufficient Kiswahili content before the adoption of ICT in Education. He further suggested that Kiswahili should be the single medium of instruction at all levels of learning in the country.

The workshop agreed that there is need for relevant content to be developed by the various stakeholders in the education system as the initiative takes root. Luckily several projects are already active in the area of ICT for development that have tried to bridge the content divide including the localization project that will go a long way in making ICT mainstream and especially so as ICT starts to get into Education.

One of the proposals made at the workshop was for the Tanzania Institute of Education (TIE), which is the governmental agency responsible for curriculum development, to start preparing Kiswahili content in readiness for the adoption of ICT in education. This, the workshop recommended should be done at both the learning medium level and ICT as subject level.

Currently, about 70 per cent of all Internet content is in English and only 12 languages out of the world's 6,000 or so account for about 98 per cent of the total web content. Kiswahili language, which constitutes over 80 per cent of the local media contents in Tanzania, is not among the 12 languages. In other words, Kiswahili is among more than 5,900 world languages, which constitutes only two (02) per cent of the Internet content. Above that, over 95 percent of the Tanzania population can only speak, read and write in either Kiswahili or tribal languages and hence may not accurately comprehend most of the content in the Internet even if they get access to it.

According to official government statistics, the Tanzania's gross enrolment levels for secondary education are among the lowest in the world. Total enrolment in six years of secondary education (Form I –VI) was 289, 699 in 2001, compared to a total primary education enrolment of 4, 845,185. Secondary enrolment is no more than about six per cent of primary enrolment, says the government. However, the government says secondary school enrolment is gradually increasing and by 2001 an increase of 10.6 per cent in total enrolment was recorded compared to 2000. The number of secondary schools increased from 721 in 1997 to 8270 in 2001.

The government decision to reduce taxation on computer imports and the 2003 National ICT Policy, which emphasizes ICT application in all sectors of the economy, accelerated rapid growth of the ICT sector. Recently the government placed ICT among development priorities in the Tanzanian Vision 2025, which is a compass of the national development plan to year 2025.

The Vision 2025 is a focal point for several government policies including the national Poverty Reduction Strategy Paper (PRSP) and the National Education Policy. It is also compatible with the UNDP's Millennium

Development Goals (MDG), which emphasize - among other things - the advancement of knowledge and people-centred communication for development and poverty reduction.

According to President Benjamin Mkapa, Tanzania envisages to be a nation whose people are ingrained with a developmental mindset and competitive spirit. These attributes are driven by education and knowledge and are critical in enabling the nation to effectively utilize knowledge in mobilizing domestic resources for assuring the provision of people's basic needs and for attaining competitiveness in the regional and global economy.

"Tanzania would brace itself to attain creativity, innovativeness and a high level of quality education in order to respond to development challenges and effectively compete regionally and internationally, cognisant of the reality that competitive leadership in the 21st century will hinge on the level and quality of education and knowledge," says President Mkapa in his foreword to Vision 2025.

Closing the workshop on January 27, the Deputy Minister of Education and Culture Bujiku Sakila, said his ministry has devised a plan to introduce ICT in teachers' colleges. He said the objective was to enable tutors in teachers' colleges become computer literate as a pre-condition to use ICT as a teaching and learning tool.

He called assistance in the implementation of ICT in both teachers' colleges and secondary schools in order to build a country of knowledgeable society. He said that increased ICT as teaching and learning tool meant that educational institutions should integrate the technology in the curriculum and educational management in order to cut down overheads. The workshop was sponsored by the Swedish International Development Agency (SIDA) and coordinated by MoEC.

For further information contact iConnect coordinator Harry Hare, harry@aitecafrica.com

www.iConnect-online.org is a knowledge sharing platform for Information and Communication Technologies (ICTs) in sustainable development. iConnect draws content from its partners, links resources and expertise and encourages collaboration. For the International Institute for Communication and Development (IICD), the host of iConnect, this is a way to share experiences, lessons learned and ideas, and interact with communities and people with an interest in development and the applications of ICTs. These experiences can lead to a better understanding of the actual benefits of ICTs for Development (ICT4D). The core of iConnect will be a series of locally written articles on the impact and the use of ICTs for development. The articles have a strong focus on fact finding; objective information on ICT4D practices from a southern perspective: Southern content written by Southern people. i4d is the iConnect partner for Asia, and ECA is the iConnect partner for Africa, disseminating the articles to their public.
