Wait till he discovers spell check on his individual learning assistant.
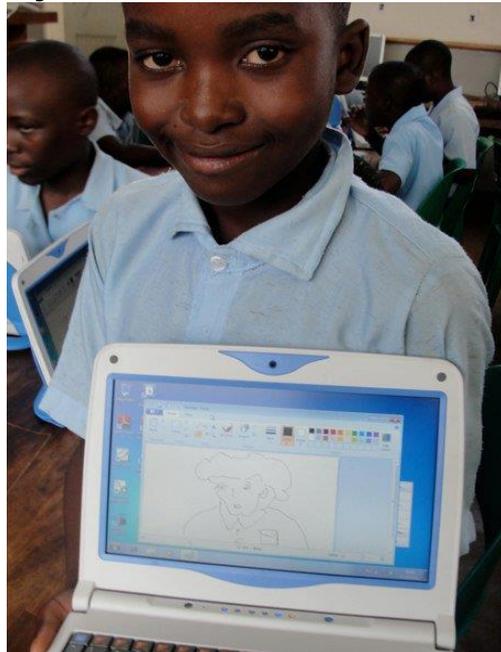
Bringing the 21st Century into Classrooms in Malawi: Classmate PCs for Primary School Students

"All that gritters is not gold," typed a primary school student, a mere fifteen minutes after receiving his classmate PC. The classmate PC is a new, affordable educational device designed to serve as a child's individual learning assistant. UltiNetS, an Intel® learning series partner and a 'Morehouse Young Entrepreneurs' Award winning company, was hired to distribute equipment to include 100 Intel-powered Classmate PCs and 100 teachers' laptops to complete eLabs in two Teachers' Training Colleges (TTC) in Malawi this past April.

Future graphic artist begins her first steps on Classmate PC.

Student teacher distributes Classmate PCs at Lilongwe TTC

This was made possible by assistance from the American people through a program funded by the Unites States Agency for International Development (USAID). The program implementation includes a partnership with the Malawi Ministry of Education, Science and Technology (MOEST) and the University of Texas at San Antonio's Textbooks and Learning Materials Program: Establishing a research-based model for the improvement of student achievement through Read Malawi!

Lilongwe TTC and Blantyre TTC and their corresponding demonstration schools have the privilege of participating in piloting the eLabs component of this program. This component not only includes equipment, but also includes a collaboration with the MOEST and Intel® South Africa to create the eLab model and to contextualize the Intel® Teach Program for the local Malawi environment. Further, the University of Texas San Antonio in collaboration with the MOEST and the Malawi Institute of Education (MIE) are facilitating teacher training using the Intel® Teach program. The goal is to build capacity by integrating computer technology into the teaching and learning environment. The program transforms the way education is deployed with an objective to create an environment where teaching and learning is driven and assisted by applied technologies in Malawi.

A student smiles at his new Classmate PC as desk mates study theirs.

Mr Goodson Jonas, the head of the Information Technology department at Lilongwe TTC said their aim is to assist these primary school students to become conversant with digital technologies.

Some of the activities the kids have learnt to do is to type, to send each other and the teacher instant messages, speak to each other via video cam on the Classmate PCs, and surf the Internet for supplementary information.

Kevin helps a delighted student discover the video camera on his Classmate PC.

It is thanks to this USAID funded program that, Ms. Mercy Chinkhunda; a teaching student at Lilongwe TTC remarked that she will finally be able to "type and print exams using the teaching computers because writing exams with pen and paper can be tiresome and time consuming."

Besides saving time for teachers, UltiNetS envisions that the application of Information and Communication Technology (ICT) in education will transform knowledge delivery and change the role of teachers into moderators and facilitators enabling a student-centred learning environment.

The teachers are equipped with Hewlett-Packard (HP) G62 series laptops built on HPs most recent technology.

USAID program enables teachers to have laptops and train in classroom management software

While the Teacher's laptops are designed for adult use, the classmate PC engages students with a colourful, easy-to-carry, child-proportioned design, and enhances learning through fun, collaborative, and interactive content.

Intel-powered Classmate PCs are low-cost, child-friendly, effective personal learning devices for young students worldwide. The durable, drop-proof construction with a sturdy plastic case is designed to withstand children's everyday use. Developed by Intel's global Platform Definition Centres to meet the specific needs of

students worldwide. The Classmate PC has been deployed in Uganda, Nigeria, Turkey, and Indonesia among many other countries.

UltiNetS was engaged to further design the Intel® inspired complete one-to-one solution including procurement, installation, maintenance, support and equipment administration training. Procurement of the hardware, comprised of teachers PCs, the classmate PCs, education appliance servers, power chargers, surge protectors, wireless mobile batteries, and charging carts. The charging carts work as a secure storage while using a single power source to charge 24 Classmates.

Three single source charging carts

The accompanying software addresses the basic needs such as the operating system, productivity applications and antivirus with additional education specific software such as the classroom management software and Intel theft deterrent software that will permanently lock the Classmates once the laptop stops communicating with the server and can only be unlocked when returned to its local area. Some of the features installed on the teacher's laptops include the Intel Education Administrator (IEA), Inspirus Classroom Controller, which allows the teacher to manage the class effectively. Corresponding software installed on

the classmate PCs include Inspirus Desktop IEA client, and Parents Carefree –this allows the teacher to control the students' access to websites online and access to other classmates within the same intranet.

Students at Blantyre TTC demonstration primary school

The Classmate PC is a long way away from the chalk and slate days under a tree. That experience is still in living memory in Malawi. It was later followed by paper and pen, which remains the status quo. Today students will have mathematics, history, biology, religion, dictionaries, and encyclopaedias among vast amounts of other readily available information all at their finger tips!

The Chief Technical Officer at UltiNeTS, Mr. Richard Chisala, says "In today's world we are operating in a knowledge economy, where success depends on not just how much you know but how well you are able to use that information, and how well you are able to communicate your ideas. Twenty-first century skills like digital literacy, effective communication, and analytical thinking are becoming more and more important for the success of students.

Richard Chisala, demonstrates placing Classmate PC in charging cart

Intel education programs such as Intel® teach trains teachers to help build these skills in the classrooms to prepare their students for success in the twenty-first century. We hope that in some small way this programme will contribute towards the transformation of Malawi into a knowledge economy."

Thomas Zgambo, UltiNeTS TDD, assists a teacher during training

UltiNetS staff trains the teachers in using the equipment, whereas training provided by the MIE using the localized Intel training content trains the teachers on the Intel® eLearning one on one platform. The program will help students and teachers cultivate digital literacy, digital knowledge consumption and its application preparing them to meet the demands of the century, which demands a different set of skills for access to knowledge, its consumption and utilisation as the global economy moves further toward an information and knowledge economy.

The cost of wiring each school is worth the investment. Not even the best private schools can claim to have such well-equipped and well-supported eLabs. Private schools can finance the eLabs without additional support. For further information contact the CTO, Mr Chisala at info@Ultinets.net or call +265 192 5992.

HP laptop for teachers to teach one-to-one addressing each student via their classmate

While Intel® Teach training has been ongoing and has spread to over 2,500 teachers across the 6 TTCs in the country, the full program is limited in 4 of the 6 TTCs due to lack of fully equipped eLabs. Perhaps the Ministry of Education Science and Technology can interest the private sector in investing further into the other 4 TTCs to standardise the eLab model in all TTCs in Malawi. After all, the companies will be investing in a future skilled workforce in Malawi. Additionally perhaps the MOEST will further support the addition of the localized Intel® Teach program into the National curriculum ensuring training for all teachers in the one on one teaching model.

USAID funded Classmate PC

Turkey has apparently trained 100,000 teachers in the One-on-One teaching model. If Malawi could train just a tenth of those, Malawi will be well positioned to be more competitive in the global economy.

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