GINKS ICT IN EDUCATION FORUM - 16th July, 2013

Distributing laptops without content management; Challenges and the way forward

This month's GINKS ICT in Education forum looked at the topic **"Distributing laptops without content management, challenges and way forward".** The forum which took place at Kanda Cluster of School compound brought together teachers and students to learn and share on the impact the distribution of laptop to students and teachers is making in the education sector in Ghana.

Opening the forum, the Circuit Supervisor of Kanda AMA Cluster of Schools, Madam Victoria and her Assistant and also the chairperson for the forum Madam Doris Owusu welcome all teachers and students to the forum. Introducing the forum, the Assistant Network Coordinator of GINKS Mr. Joseph K. said GINKS has been championing ICT in Education, ICT in Health, Gender, Youth and Agric in Ghana over the years. He stated that GINKS is not new to Kanda cluster of schools as most teachers and students have benefited from our educational programs.

Joseph added that GINKS also conduct ICT related researches and also organize capacity building trainings on various thematic areas. He urged all to join the GINKS Discussion Groups (Dgroups) which he described as a knowledge hub (platform) for discussing trivial ICT4D related issues in Ghana. He went on to introduce the resource person Mr. Wolako Dake who is an experienced educationist with particular interest in ICT4D. Mr. Wolako currently works with the Education Support Unit in Ghana.

Starting the presentation, the resource person Mr. Wolako Dake asked teachers and students to come out from their desk to the compound for a 30 seconds observation.

Resource Person Mr. Wolako Dake explaining a point to a participant during the forum

Upon return Mr. Wolako posed a question to the teacher and students **"why should we learn ICT tools".** Wolako said the study of ICT is necessary because it help provide most information which is also easy to reproduce, information can be accessed quickly no matter the geographic location etc.

Wolako said it is amazing that some schools in some communities in the capital city lacks ICT infrastructure and ICT teachers.

Wolako reiterate that the one laptop per child is not a Ghanaian invention.
The One Laptop per Child (OLPC) programme became one of the policy initiatives contained in the 2007 Budget Statement and Economic Policy of the Government of Ghana which indicates the usage of computers in schools.

It is an American Based project in Miami, Florida with several partners including google. The XO Tablet is an Android tablet designed for children 3-12 years old that brings OLPC's expertise to both the educational & retail markets. It features a 7-inch screen and over 150 applications.

Section of teachers and students of Kanda AMA Cluster of schools listening attentively to the presentation

OLPC's Five Principles

1. Child Ownership OLPC has created the XO laptop to be low cost, robust and powerful, beautiful and friendly. It was designed for elementary school children, the first of its kind.
A laptop can be transformed into a mobile school: a portable learning and teaching environment. A connected laptop is more than a tool. It is a new human environment of a digital kind. An essential aspect of OLPC is the free use of the laptop at home, where the child and the family together can greatly increase the practice time normally available at a school lab or library.

2. Low Ages - The XO is designed for the use of children ages 6 to 12 — covering the years of elementary school — but nothing precludes its use earlier or later in life. Children do not need to know how to write or read to enjoy and learn with an XO

3. Saturation - OLPC is committed to elementary education in developing countries. To attain this objective we aim to reach "digital saturation" in a given population. Over time, the education network becomes solid and robust, without a digital divide.

4. Connection The XO has been designed to provide an engaging wireless network. The laptops are connected to others nearby automatically. Children in the neighborhood are permanently connected to chat, sharing information on the local network or web, making music together,

editing texts, or using collaborative games. The laptop can be charged by solar or mechanical power, or through special bulk-chargers at school. The unique XO display allows the use of the laptop under a bright sun.

5. Free and Open Source All children are learners and teachers, and this spirit of collaboration is amplified by free and open source tools.

Mission: The root cause of the rapid change, digital technology, also provides a solution. When every child has a connected laptop, they have in their hands the key to full development and participation. Limits are erased as they can learn to work with others around the world, to access high-quality, modern materials, to engage their passions and develop their expertise.

What children lack is not capability, it is opportunity and resources. The tool with which to unlock their potential is the XO. Put this ultra-low-cost, powerful, rugged, low-power, ecological laptop in their hands and contribute to making a better world. In the first years of OLPC we have seen two million previously marginalized children learn, achieve and begin to transform their communities. We are working to provide this opportunity to millions more.
www.Onelaptopperchild.org

Students using the OLPC laptop in class in Ghana

2 million children and teachers in Latin America are currently part of an OLPC project, with another 500,000 in Africa

Wolako mentioned that a casual survey in Accra indicates that no school in Ablekuma central has been supplied the Better Ghana Agenda laptop up to date. Thomas Clegg Methodist pupils at Kaneshie say 'the school has no computers and the pupils are not supplied'.

"With ICT tools, a teacher could teach school (A) and teacher in school (B) with the appropriate technology in place will have access to the materials and that is why Ghana has made that effort to introduce one laptop per child starting from the late Minister Kwadwo Baah-Wiredu" Wolako

The purpose is that content should be relevant and the child should be able to work at home without hassle.

The programme of OLPC was first mooted by Kwadwo Baah-Wiredu as Minister of Finance and later Minister of Education in 2006. At the time of the announcement, there was no clear cut document spelling out the modalities of distributing and the classes to benefit.

Wolako stated that he believe Ghana jumped onto the OLPC bandwagon because the founders and initiators of the programme were looking for global partners and as they put it 'to saturate the market' they were looking for as many countries as can accept the technology. The initiators fixed the price at $75.00 but Ghana announced the price to be $100.00. Samples were brought in but that was not the tablet then at Hon. Kwadwo Baah-Wiredu's era. The programme then died a natural death.

In 2010, Vice President Mahama announced the OLPC again and Hon. Lee Ocran further went ahead to announce that teachers would be given laptops.

As part of the efforts of the Ministry to ensure that children in Basic Schools have access to computers, the Ministry in 2011 launched the Basic Schools Computerization Project. Under the project, 60,000 lap top computers have been purchased for distribution to Basic schools throughout the country. To date, 15,000 of the total lap top computers have been distributed in the Upper East, Upper West and Northern Regions. Plans are afoot to cover the rest of the country before the end of the year.

The Ministry has also drawn up plans to supply all Junior High School Teachers throughout the country with lap top computers. Under the initiative, 65,000 Teachers are expected to benefit from the package which takes off before the end of the year.'

By Hon. Lee Ocran's announcement RLG was noted to have donated 60,000 computers to be distributed. Whether these were part of the government's purchased laptops is not clear.

"Unfortunately we have not achieve the one laptop per child initiative probably because Ghana does not have the finance" Wolako

Some teachers and students seated at the education forum with some teachers taking note

ISSUES: The issues one has to consider with the OLPC are as follows:

a. **Cost** – Government expenditure on Education is always considered as to be enormous (being about 20% and the highes t with over 75% going into salary and emoluments. Considering the school and student population therefore one could fathom the cost to Government.

Cost of laptop- **Basic - Pupils:** 2,655,288 x600 = GHc 1 593 172 800

                Teachers: 70,334 x600 = GHc 42 200 400

      JHS - Pupils: 926,170
             Teachers: 37,149

b. **Infrastructure:** looking at lack of classrooms and the need to protect children from the vagaries of the weather and disruptions that take place when children have no buildings one wonders whether the 600GHc to the child is worth it. Since the computers were to be networked, Ghana is not ready as even areas in the cities do not have internet connectivity and even where available the cost is exorbitant thus widening the digital divide. The Telcos are more interested in wireless broadband connectivity than fixedline broadband.
Electricity supply is not the best int eh country. Pubnlic basic schools are not connected so it is doubtful how the laptops were going to function.
c. **The Rlg laptops** end up being proprietary software based unlike the original idea of opensource. For a Government to pay the cost of license on proprietary software per laptop is additional recurrent cost.
d. **Security-** to give a laptop to achild who has no secure room is a loss. Let's consider the fire outbreaks at Agbogbloshie for instance. What about miscreants who can snatch the laptops from the pupils.
e. **Content-** another area of concern is the platform and the content. Most of data on the laptop is foreign which did not take our curriculum into consideration and yet content creators were not trained to provide relevant content for use.

It is therefore in my estimation waste of resources to place priority on OLPC in Ghana as the present programme and policy. Wolako mentioned that the distribution of laptop is said to have a false start because there was no initial training for teachers.
"For the computers to work to suite our educational system, teachers must therefore create relevant content and that is why the teacher must be trained first before the distribution of laptops to students follows" Wolako

Before ICT in Education can be effective, teachers must be ready to create content. With the use of ICT tool like computer, preparation of lesson notes and awarding marks etc will become easy. With ICT, a click at a button helps teachers from sweating in the chair looking for calculator to access student etc.

Wolako said it important teachers do understand ICT Technology. If teachers do not understand and change from that old cycle, nothing good will come out of it. He said one major problem is that we do not understand the term technology. With ICT, teachers can

give assignment and students can even access on mobile phone but unfortunately mobile is not allow by students in schools in Ghana.

He said the way forward for teachers in form a team to create content and teacher must also be encouraged to learn software development to help develop content in local languages for the students.

Wolako noted that infrastructure allows for sharing and internet connectivity plays a vital role. If one teacher has relevant information, other teachers can also have access to such information remotely. The one laptop is not the issue, the issue is connectivity in our part of the world. There is so much digital divide making it almost impossible for most remote part of the country to lack access to internet.

Wolako made it clear that most schools with ICT lab rather paste notice with the inscription " No entrance for students, only ICT teachers" at the entrance of labs. Wolako said he can imagine what could have happened when similar notice is placed in front of kitchens in our homes permitting only our mothers to enter.

He said he preferred to call teachers knowledgepreneurs because they have the ability to train people to tackle problems. He added that education in itself is a change of behaviour and development comes when people change and act pragmatically for the betterment of the community.

What would be best is school based computer labs which would cut down on Government expenditure and make money available for electricity extension to schools and interned connectivity t all public schools under a Government initiative. Content creators must be trained to develop appropriate media for the laptops. Teachers must be trained before the implementation of the programme.

Open source platform is more relevant since no fees rare required for license. They lend themselves to copying, redistribution and modification including use of local language.

He said with opensource software like ubuntu, it is possible type in Ghanaian local languages which is a plus to effort by some Ghanaians to create that application. He added that opensource allow for the creation of local languages unlike proprietary software like Microsoft. Again opensource is inexpensive and must be considered.
"The use of computers in education is a complex idea and must be approach in a more holistic manner" Wolako

The chairperson for the forum, Madam Doris Owusu expressed her gratitude to GINKS and the resource person as well as teachers and students for making time to attend the forum. She said they have learnt a lot especially on what ICT can help them achieve as a school and individuals (teachers & students) and they have taken cue from it. They however asked the management of GINKS to organize similar forum on regular basis to educate them from time to time. The Assistant Coordinator of GINKS thank all participants and school authority and bring the forum to a close.