



From The Chairman's Desk

As the year draws to a close we will like to wish our numerous readers a happy Christmas and the best for 2013.

The 2012 third issue of Agenda 2015 gives us the opportunity to share with our loyal readers the many good things that have happened to OLE Ghana, especially during the last quarter of the year.

This edition carries stories of OLE Ghana's award by USAID during the World Literacy Day Celebrations in Washington, as well as the presentation at Harvard and its participation in the mEducation symposium. We share with you our award winning Ghana Reads Program, let you in on the Raspberry pi and then get you prepared to ring the BeLL .

For the Editorial, we join the world to examine the 'Literacy Challenge'. Our Education Issues segment brings you insights into M-Learning.

Once again we wish all our loyal readers well in their endeavors and a happy reading. To read earlier versions of Agenda 2015 visit **News Archive** at www.ole.org.gh

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Editorial

"Education brings sustainability to all the development goals, and literacy is the foundation of all learning. It provides individuals with the skills to understand the world and shape it, to participate in democratic processes and have a voice, and also to strengthen their cultural identity".

- Irina Bokova, UNESCO Director General

The above statement by the UNESCO Director sums up the importance of Literacy and why we need to pursue it with a vengeance. Literacy is a human right, a tool of personal empowerment and a means for social and human development. Educational opportunities depend on literacy and is essential for eradicating poverty, reducing child mortality, curbing population growth, achieving gender equality and ensuring sustainable development, peace and democracy.

Currently out of the 793 million adults world wide, one out of every four of them can not read with majority being women. While in developed nations, the majority of the population over the age of 17 do have basic literacy skills in reading and writing, the rate of literacy in developing nations is much lower. In Ghana national tests have indicated that many pupils who finish P6 can not read or write. This lack of widespread literacy among developing nations hinders their further development . UNESCO has found a correlation between illiteracy and poverty, low life expectancy, and political oppression.

Campaigning to raise literacy rates worldwide has led to various affirmative actions being taken to deal with the 'Literacy Challenge'. On. November 17, 1965 UNESCO proclaimed September 8 as International Literacy Day and for over 40 years now this day has been celebrated internationally to remind the international community that literacy is a human right and the foundation of all learning.

Open Learning Exchange (OLE) Ghana believes like many others that Literacy is and should be at the heart of basic quality education for all. A good quality basic education equips pupils with literacy skills for life and further learning; literate parents are more likely to send their children to school; literate people are better able to access continuing educational opportunities; and literate societies are better geared to tackle pressing development agendum.

It is OLE Ghana's hope that its USAID sponsored Ghana Reads project which is a component of the All Children Reading program will greatly help address the 'Literacy Challenge' in Ghana.

In every education reform the teacher is the central focus.The teacher is, therefore, the first consideration in implementing education reforms." (2010 preliminary education sector performance report) Visit <http://www.ole.org.gh>



OLE Ghana’s Award Winning Project — Ghana Reads

As the world has become smaller with people more connected and interdependent, we can no longer afford to waste the world’s most valuable renewable resource – our children. Open Learning Exchange (OLE) is a global community of educational entrepreneurs creating and freely sharing innovations that can be scaled to all children, especially the most marginalized, thus offering them a quality and universal basic education in ways that unleash their immeasurable talents.

Quality and universal basic education has become a requirement for a sustainable world. OLE’s quest for quality and universal basic education hinges on three important systemic innovations for learning: 1) helping teachers to shift from instructing to coaching, 2) providing unrestricted access to free and open learning resources and 3) employing effective and affordable tools that support learning.



OLE Ghana’s Ghana Reads program seeks to give life and meaning to the above. Developed based on real evidence gathered from OLE’s two model projects namely the Ghana Learning Innovations Teams for Education (LITE) model project and the Ghana TeacherMate (TM) Trials, Ghana Reads addresses the need for universal literacy for all Ghanaian children by introducing new ways of learning that involve the use of low cost tablets, small learning teams with students interacting with quality resources and climbing their own personal learning ladders with help from their fellow team members and teachers who are themselves learning how to coach.

The need for such an intervention is borne out by the fact that, despite numerous attempts to improve literacy skills, the 2011 National Education Assessment report indicates still a poor language proficiency at the basic level.

Over the next two years, pupils and teachers in an initially selected twenty schools, in partnership with the OLE team, will work to transform their traditional, rote learning classrooms into dynamic, interactive centers of learning through the use of the innovative OLE School BeLL (Basic eLearning Library) System.

The BeLL system, which is powered by the Raspberry Pi server is designed to work on and/or off the electric grid as well as the Internet. This ensures that the most marginalized students in resource-limited areas have access to high quality, learning resources. A Ghana National BeLL network will be used to update each of the School BeLLs periodically with new resources. A feedback functionality worked into the BeLL system will send usage data (such as pupils and teacher comments and ratings of the effectiveness of the resources) to the Ghana BeLL from where such data would be made available to educational authorities, curriculum developers, resources developers etc. This will provide unprecedented rich data that can help improve the effectiveness of the learning materials and strategies that are developed for achieving universal child literacy.

Ghana Reads will also allocate significant effort to what happens outside the classroom, doing community surveys/ programs, creating local newspapers, organizing festivals for showing films pupils would have produced and encouraging pupils to undertake project based learning. A strong relationship among all levels of a nation’s government, with the students, parents and the members of their communities, is needed to achieve life-long ready for everyone. Everyone benefits from this approach. It will document the potential for achieving universal literacy among Ghanaian children, at a cost that will enable this approach to be scaled throughout Ghana.

Ghana Reads is being sponsored by the **All Children Reading : A Grand Challenge For Development partners namely USAID, Australia AID and World Vision International.**

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Visit <http://www.ole.org.gh>



OLE Ghana News *continued*

OLE International at mEducation conference

The mEducation Alliance symposium was held at the Grand Hyatt Hotel Washington on the 5th and 6th of September. Over two hundred participants registered and attended. There were a total of eighty - five presenters and thirty - five countries represented.

OLE Ghana and OLE Inc presented at a session on 'System Strengthening: Innovations in Content and System Tools'. This session was chaired by Carla Jimenez of the World Bank.

The two organizations had its own Parking Lot session where the organizations' concept of improving Literacy was explained to those who visited our Parking Lot. To read more about the symposium visit <http://www.meducationalalliance.org/>

OLE Ghana picks up international award

The World Literacy Day Celebrations were held on the 7th of September in the Ronald Regan building, Washington. It was characterized by presentations, good will messages and the announcement of the winners of the All Children Reading Grand Challenge for Development.

OLE Ghana was one of the proud winners out of the over 450 applicants. There were three other groups from Ghana who won awards namely Dr Leslie Casely-Haford's Olinga project, the iRead project and the Perkins Project.

As part of the celebrations all 32 awardees mounted exhibitions of their innovations. Over 600 people visited the exhibition stands. OLE Ghana's Ghana Read with its \$30 Raspberry Pi server was the toast of the exhibition as its stand received many prominent visitors such as senior World Bank officials including Mike Trucano, senior USAID officials including Rajiv Shah (USAID Director) as well as senior World Vision officials. To read more about All Children Reading visit <http://www.allchildrenreading.org/>

As a sequel to the presentation, a workshop was organized for awardees on the 8th of September there was a workshop for awardees. It was an opportunity for awardees to get to know each other well and to forge partnerships. There were presentations on Early Grade Reading why and what works, Building a Community, the vision of the ACR GC partners as well as the importance and challenges of M & E. Awardees were taken through issues relating to how the Grant Management and questions were answered.

OLE Ghana Gets New Staff

OLE Ghana has brought on board two new staff members. They are expected to support with the smooth implementation of the Ghana Reads Project. We will publish their profile in the next edition of Agenda 2015

iPod TM Pilot

OLE Ghana is providing support to Edify's piloting of self-paced learning based on a basic differentiated instruction system. The support is for a period of one academic year and will involve the use of the iPod and Innovations for Learning's Teachermate (TM) platform. The pilot aims to give each student 30 minutes of practice and instruction per day that is personalized to their level of reading and English language proficiency.

OLE Ghana has since October 2012 been providing coaching services to the two schools selected by Edify for the project namely Rochma Home International at Ashogman and Mawuko Education Complex at Ashiaman Zenu all in the Greater Accra Region of Ghana.

Teachers have shown a lot of confidence in OLE Ghana Coaches on the project. They are handling Teachermate sessions with relative ease and are able to multitask. Coaches have endeared themselves to the pupils who have given the Coaches nicknames.

WV - USA and EDIFY Joins Ghana Reads

World Vision USA (WV-US) and Edify have both expressed strong interest in the Ghana Reads project. Both organizations have entered into agreement with OLE for two of their schools each to be included in 20 schools selected for an initial pilot.

The partnership will provide valuable lessons for the Ghana Reads project. While the WV-US schools presents opportunities to manage the Ghana Reads program far from the 'center', the Edify schools would provide the opportunity to see how the Ghana Reads would work in low cost private schools.

ACR Awardees Presented to Stakeholders in Accra

USAID Ghana at a ceremony at their offices in Accra presented Open Learning Exchange Ghana and the other three All Children Reading awardees to key stakeholders in the Ghanaian education community. Present were very senior officials of the US mission in Ghana the Ghana Education Service, and some Development partners.

A Senior Education Advisor to USAID/USA, and who was very much involved in the organization of the All Children Reading challenge, was full of praise for Ghana indicating that Ghana was the only county that had four awardees.

The Deputy Director General of the Ghana Education Service expressed delight at the fact that there were so many innovations coming up to support existing efforts at improving literacy among pupils in Ghana.

In her closing remarks the USAID Ghana Mission Director urged all the awardees to live up to expectation adding that USAID will closely follow the exploits of each awardee.



The Pi and The BeLL

At the core of the technology to be deployed in the USAID sponsored Ghana Reads project is the Raspberry Pi. In this issue of Agenda 2015, we bring you a special feature on the 'famous Raspberry Pi' and indicate how it fits into the Ghana Reads agenda.

The Raspberry Pi is a credit-card-sized single-board computer. A single-board computer (SBC) is a complete computer built on a single circuit board, with microprocessor(s), memory, input/output (I/O) and other features required of a functional computer. Unlike a typical personal computer an SBC may not include slots into which accessory cards ("daughterboards") may be plugged. However it can plug into a Keyboard and a TV. It is therefore a capable little PC which can be used for many of the things that your desktop PC does, like spreadsheets, word-processing and games. It also plays high-definition video.

The Pi was developed in the UK by the Raspberry Pi Foundation. The Raspberry Pi Foundation is a charitable organisation registered with the Charity Commission for England and Wales. The Foundation is supported by the University of Cambridge Computer Laboratory and Broadcom.

According to co-founder, Eben Upton the lack of programmable hardware for children – the sort of hardware we used to have in the 1980s – was undermining the supply of eighteen year olds who know how to program, making it a problem for universities, and then undermining the supply of 21 year olds who know how to program, thus causing problems for industry. The Foundation expected that the introduction of the device would promote the study of computer science and related topics, especially at school level, and to put the fun back into learning computing

In the last quarter of 2011 the first batch of Pis were manufactured.

The Raspberry Pi measures 85.60mm x 56mm x 21mm, with a little overlap for the SD card and connectors which project over the edges. It weighs 45g. Currently there are two models: Model A and Model B

Model A has 256Mb RAM, one USB port and no Ethernet (network connection). Model B has 512Mb RAM, 2 USB port and an Ethernet port.

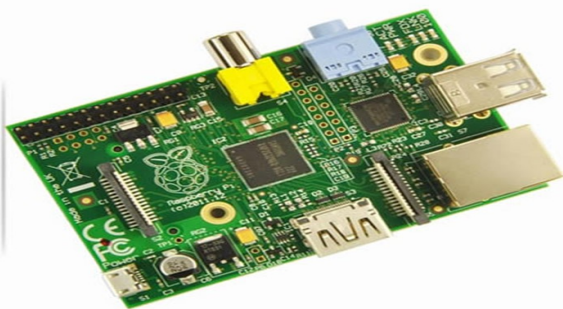
General initial expectations when the device was produced was that children would take to programming using languages such as Scratch and that the input/output functionality would be used to control external devices. Additionally, it was expected that the low power requirement would facilitate battery-powered usage in robots, while the video capabilities would lead to interest in its use as a home media centre.

Open Learning Exchange (OLE) Ghana has taken the Raspberry Pi and placed it at the center of its Basic eLearning Library (BeLL) concept. The BeLL is a low cost digital library replete with high quality teaching and learning resources as well as resources for teacher support and professional development and for community education.

The Raspberry Pi best suits the BeLL concept because of the following:

- The price is just right. Together with the required cabling and SD cards the costs is around \$50
- It is right for the terrain. It is robust and portable. It does not require internet but supports wi-fi and LAN. It also has a low power consumption.
- It does the trick. With an SD Card and the right app the Pi supports the organization, packaging as well as distribution of library resources.
- It would facilitate the processing and onward transmission of vital feedback collected from the usage of the BeLL by teachers and pupils.

OLE Ghana as part of the USAID sponsored Ghana Reads project hopes to create a mesh network of low cost digital libraries using the Raspberry Pi to be updated by either Coaches who will provide support to teachers even as they use the technology in their classrooms and/or via internet where it is present.



Pictures of Raspberry Pi without and with an SD Card



Educational Issues — Mobile Learning

Mobile learning or M-Learning is emerging as one of the solutions to the challenges faced by education. Its unique attributes of being personal, portable, and interactive, makes it an aid to formal and informal learning and thus holds enormous potential to transform the delivery of education and training.

M-learning is convenient in that it is accessible from virtually anywhere. Like other forms of E-learning, it is also collaborative. Sharing is almost instantaneous among everyone using the same content, which leads to the reception of instant feedback and tips.

M-Learning has become possible as a result of the advent of, and further development in mobile devices. Mobile devices such as handheld and tablet computers, MP3 players, smartphones and mobile phones offer modern ways to support the learning process which emphasizes "just-in-time-learning" as instruction can be delivered anywhere and at anytime through them. They are an attractive and easy means to maintain literacy skills and gain constant access to information, are affordable, can be easily distributed and thus hold great potential for reaching marginalized as well as far to reach groups providing them with access to further learning and development.

UNESCO has been in the fore front of promoting the use of mobiles for learning. It will hold the second UNESCO Mobile Learning Week (MLW) from 18 to 22 February 2013 at its Headquarters in Paris, France. The event aims to explore mobile learning as a unique and significant contribution to achieving the Education for All (EFA) goals of increasing education access, quality and equality. MLW 2013 will focus on three particular EFA goals as they relate to mobile learning:

- Improving levels of adult and youth literacy: how mobile technologies can support literacy development and increase reading opportunities
- Improving the quality of education: how mobile technologies can support teachers and their professional development
- Achieving gender parity and equality in education: how mobile technologies can support equal access to and achievement in basic education of good quality for all, in particular for women and girls

Tutors who have used M-Learning programs and techniques have made the following value statements in favor of M-Learning.

- It is important to bring new technology into the classroom.
- Devices used are more lightweight compared to books and PCs.

- Mobile learning can be used to diversify the types of learning activities students partake in (or provide a blended learning approach).
- Mobile learning supports the learning process rather than being integral to it.
- Mobile learning can be a useful add-on tool for students with special needs.
- Mobile learning can be used as a 'hook' to re-engage disaffected youth.
- It is potentially a more rewarding learning experience

It must be said that despite the numerous advantages M-Learning presents, it has its own challenges though. These include technical challenges such as Connectivity and battery life; Screen size and keyboard size; Meeting required bandwidth for nonstop/fast streaming; Number of file/asset formats supported by a specific device; Content security or copyright issues from authoring groups; Reworking existing E-Learning materials for mobile platforms; Limited memory and Frequent changes in device models/technologies/functionality

There are social challenges as well such as Accessibility and cost barriers for end users: Digital divide; How to access learning outside the classroom; and How to support learning across many contexts.

Educational challenges associated with M-Learning include Developing an appropriate theory of learning for the mobile age; Design of technology to support a lifetime of learning; Tracking of results and proper use of this information; Access to and use of the technology in developing countries and Risk of distraction.

Despite the challenges over the past ten years mobile learning has grown from a minor research interest to a set of significant projects in schools, workplaces, museums, cities and rural areas around the world.

Open Learning Exchange (OLE) Ghana recognizes the benefits of mobiles and M-Learning. Its Ghana Reads project will increasingly research into and continue to make use of low cost but durable mobile technology that fits the Ghanaian context to reach out to the teachers and pupils on the project.

OLE Ghana will however pursue this Mobile Education agenda having at the back of its mind that is important in building competencies among teachers that can be enabled by mobile technologies consideration is given to ways that mobile technologies can complement and be integrated into a range of technology access modalities and pedagogy that teachers are familiar with.



News File

OLE Ghana Performs Cooperate Social Responsibility

OLE Ghana has once again through its Executive Director provided support to To Be World Wide, a local NGO that provides library and career counseling opportunities to school going children in the Sekondi Takoradi Metropolitan area.

To Be World Wide organized a one week career counseling session where it carried out further tests on its CAT platform. It turned out to be a huge success.

OLE at Harvard

Monday 10th September 2012 saw The OLE team made up of staff from OLE Ghana and OLE Int making a presentation at the Harvard School of Education OLE Ghana led the presentation on the Ghana Reads innovation and answered questions on education in Ghana. Thirty graduate students took part in discussions after the presentation. The discussions were moderated by Prof Frenando Remeries, Professor in International Education and former worker of the World Bank.

OLE Ghana Executive visits OLE Int office

As part of his visit to Washington to take part in the World Literacy Day Celebrations and to receive the All Children Read Award, OLE Ghana's Executive Director visited the OLE Int offices in Cambridge. The visit afforded both organizations the opportunity to come up with a tentative deployment plan for Ghana Reads project.

It was decided that the rest of 2012 would be used to further develop the learning platform, gather and audit content for the Basic eLearning Library (BeLL), forge partnerships to advance the cause of Ghana Reads complete M & E framework train personnel for the project and firm up arrangements for the supply of equipment needed for the project.

OLE Ghana Holds Board Meeting

OLE Ghana has held its Board meeting for the last quarter of the year. The meeting took a second look at OLE Ghana's mission and vision statements and their implications for OLE Ghana's Grand Plan for achieving Quality Universal Basic Education.

Board members were very happy with the current status of OLE Ghana projects/activities and urged management in going forward to form partnerships, beef up its staff and intensify its fund raising activities.

The Year Under Review

OLE Ghana's vision is to help every young person acquire, through quality education, the basic knowledge and skills necessary to become a productive and fulfilled member of the global community. It has set its self the target of guaranteeing that every community has the capability to assure quality learning for all of their children applying effective innovation environments which apply information technologies and networks that facilitate learning.

As the year comes to an end we ask you to join us take stock of our activities and to celebrate our modest successes.

At the beginning of January 2012 we moved into our new offices at Osu Anahor. In the same January we began the piloting of the Ghana Learning Innovations Team for Education concept (Ghana LITE) at Katapor with financial support from the Danish IT society and a donation of 100 nooks from Barnes and Nobles

In February we teamed up with, Open Learning Exchange Inc and Innovations for Learning (IFL) to pilot the Teachermate Differentiated Learning System

In the course of the year we have taken part in, and contributed to, many key workshops and seminars including a seminar on education in Ghana by the IDP Foundation and a workshop on effective teaching using the Sesame Street Videos organized by Sesame Workshop

We have reached several agreements with owners of content such as eLearning for Kids and the British Council to use their content in the schools we work with.

In September we began our support to Edify as they piloted Teachermate concept in two low cost private schools using the iPod Touch.

And the crowing moment was when we were selected as one of 32 awardees and presented in Washington on World Literacy Day with a grant to implement our Ghana Reads

We say a **BIG THANK YOU** to all those who have in diverse ways helped us along and wished us well.



**Merry Christmas
&
A Happy 2013**