Community News

A weekly update of One Laptop per Child August 31, 2008

Learning

Birmingham: The XO eXpO was held on Saturday, August 23, at the McWane Science Center. The capabilities and functionality of the XO laptop were presented to 154 business and civic leaders, educators, and educational administrators. Guests came from around the city, the state, and as far away as Panama.

In addition to OLPC President Chuck Kane, the numerous speakers included Michael Wilson, principal at Glen Iris Elementary, our pilot school, Prothaniel Harris, a 5th grade teacher from Glen Iris, the Birmingham City schools director of instructional technology, a Birmingham city councilman, a professor from the computer and information sciences department of the University of Alabama at Birmingham, the president of the board of education and two representatives from Mayor Larry Langford's office.

Nine Glen Iris students who created campaigns using Scratch to teach their communities about health care issues showed eXpO participants their projects and taught general use of the laptop. Another highlight of the Expo was a robot controlled via the XO laptop and the Wiimote from Nintendo's Wii Gaming System, created by Tyler Williams, an MIT student and a member of the OLPC team to Mongolia.

Both children and adults came away excited about the XO laptop's potential. "It looks like a glorified toy," said Mr. Harris, "but they are not toys. Children need to be doing things that are hands-on. It kind of takes away a lot of the negative behaviors they otherwise would have because they are engaged."

In an added program feature, Magic Seth, former Media Lab student and impressive technological magician, utilized the laptop for 2 magic shows.


Through the XO eXpO, Birmingham - the Magic City - has been exposed to the magic that is possible through the combination of the XO and a community coming together to make a difference.

The event was covered by local Fox, ABC, and NBC affiliates, and both the *Birmingham News* and *Birmingham Times*. Links:

Birmingham News Fox News ABC News
University of Alabama Birmingham

Rwanda: This week the 11th Rwanda International Trade Fair was held in Kigali. The Rwanda Information and Technology Agency – RITA – set up a booth and highlighted the OLPC project as one of its main initiatives. Carine Umutesi, RITA's long-time liaison to OLPC, brought one teacher and some students from the project pilot school in the Rwamagana district to demonstrate the XOs.

Rwandan President Paul Kagame opened the fair and spent considerable time in the RITA space interacting with the students and watching them present what they have learned so far. The laptops were running the alpha versions of Sugar 8.2 localized to the local language, Kinyarwanda.
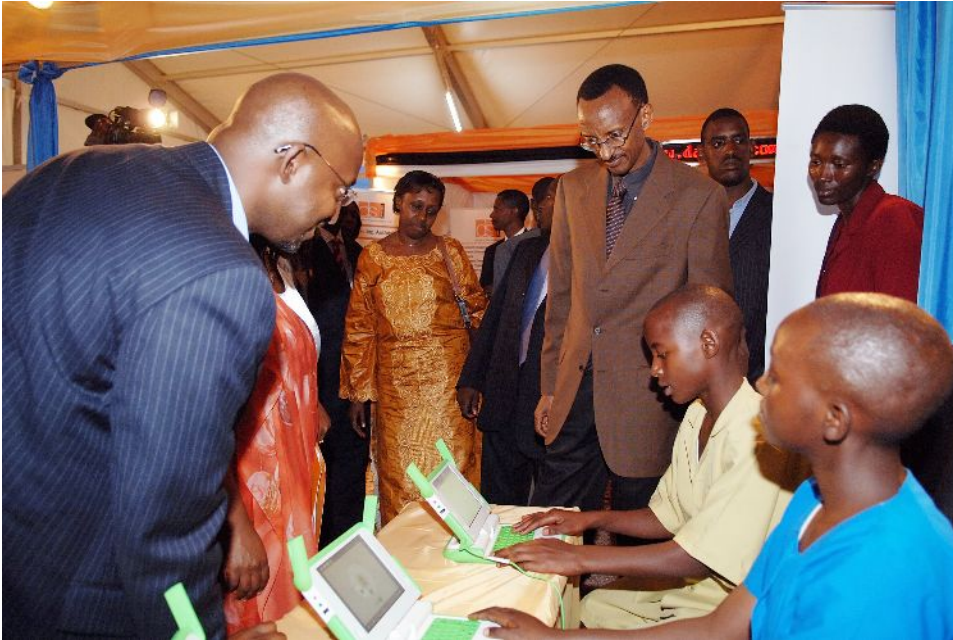
President Kagame and Théoneste Mutsindashyaka (left), the minister of education, visited the RITA table for a first-hand look at XOs in action.

The preparation for the OLPC launch on September 5th is moving quickly. Many challenges such as the electricity infrastructure in the schools, translation of software to the local language, and digitization of text books are being solved so that the project can begin properly. Coordinator Richard Niyonkuru is now working full-time dedicated only to the OLPC initiative. Besides helping with preparations for the deployment, Niyonkuru is also visiting many governmental agencies and stakeholders in the country to promote awareness of, and coordination with, the project.

As a result of Richard's initiative, the team began working both in a medium-term planning for the next year, as well as a five-year vision for the project. The plan for rollout is shifting to begin in the poorest areas of the country. Using this strategy, it will be possible to take advantage of other governmental initiatives to cut such costs as infrastructure. The idea is also to promote the project not just as a ministry of education initiative, but as a broad-based governmental program.

In order to achieve this objective, the government will use the OLPC Regional Workshop, to be held from Sept. 28 to Oct. 1st, as a vehicle to promote awareness inside the country and to attract international donors.

Mongolia: A functioning government at last should be in place by the end of next week. Cabinet members, including the minister of education, are expected to be changed.

On September 18th, OLPC will co-host a round table discussion about its role in Mongolian education among government officials, funders, NGOs, countryside representatives and the media.

Haiti: This week has been interrupted by Hurricane Gustav. Everyone on the team is fine and our building stood up firmly against the rain and the wind. But Gustav did delay recruitment of the EFACAP staff, which is now expected to occur toward the end of next week.

Emmanuel has gathered information on the various schools that will be part of the initial rollout. We are now working on making this information editable/accessible through an online dynamic page. We hope to feed the database with geographical information, using geolocalization services like OpenStreetMap or Google Maps.

Medly and Beatrice have been working on several educational projects. One focuses on birds for 10-year-olds. Another is about discovering plants. While jotting down ideas for these two projects, we discussed the appropriate level of details required for instructions. We agreed that we should have various levels, from step-by-step guides to general and suggestive directions. The idea is to have a sufficient variety of materials to reflect the various teaching needs, the various teachers' profiles, and to encourage initiative. Since these materials will be online on the wiki, any activity is apt to evolve (and perhaps fork) in any direction.

We tried to put some activities online and refined the forms for doing so. This is not yet perfect and will be fixed over the weekend. We also started to work on the technical training. The first XO dissection will happen on Monday, and we will try to film this.

Reading the reports from Mongolia, we realized how important it could be to have a Linux User Group in Haiti. People on the team were encouraged to be the proud initiators of such a LUG. They liked the idea, so this might eventually happen. It is hoped that such a group would serve as an effective proxy for gathering volunteers around OLPC Haiti.

Wanda is working with the tech team as they gear up to test the solar panels received from OLPC. We are discussing electricity and connectivity with Green-Wifi and Engineers Without Borders. Also talks with the tech team this week were really informative in efforts to develop a better idea of how to address the technical needs in Haiti. The project coordinator has just signed an agreement with a publisher, which will bring a considerable amount of educational content to the XO. We will have four or five people dedicated to adapting this content to the XO. They will come and work here in the building at Rue 2.

We will upgrade 4 XOs to the latest version of Sugar and activities, switch this to the latest available translations, and send the prepared XOs to linguists for review. We will integrate their corrections during September. Two big milestones for September: the teacher/tech training, and visiting the schools to fix as many electricity/connectivity issues as possible (and make a plan for fixing those we

cannot afford to fix right now.) On the political side, Haiti has a new government and a new minister of education. The impact on the project is not predictable but things look fine so far!

Cambridge: Members of the Learning, Technical and International teams participated in a comprehensive telephone review of ongoing deployments, with specific attention to Mongolia, Rwanda, Haiti, and Birmingham. For each of these discussions the Cambridge team was joined by on-site OLPC-ers. Emphasis was placed on technical performance and immediate needs. One recurring demand was for improved networking and collaboration performance, particularly in large schools, as well as power, both management and solutions to lack of infrastructure. The knowledge and idea transfers that occurred during these calls is leading to more persistent feedback and support loops, particularly as the number of deployments continues to grow.

Technology

Connectivity:

1. Collabora worked on bug fixes, activities and debugging tools this week. Ejabberd continues to give us problems. Replacing it with Gadget is still not possible. At least Joe's latest testing shows significantly improved (albeit still very buggy) behavior of the collaboration stack. Guillaume Desmottes spent lot of time testing different versions of ejabberd and our shared poster patches. He came to the conclusion that most of our issues are due to ejabberd upstream bugs and so are not related to our modifications. Bugs have been reported upstream. He also started to test Gadget using hyperactivity and found/fixed somebugs.

2. Mitch Bradley finished coding the Linux driver for the LBA-NAND FLASH part and is starting to debug and test it. We hope to be able to start "endurance" testing of the LBA-NAND flash very soon. Passing that test will allow us to use a standard Linux filesystem on the XO, something that will make future development a lot more straightforward. Mitch also helped Gerardo Richardo port "SqueakNOS" (a version of Squeak that runs without an underlying operating system) to the XO.

Touchpad:

3. Samples of the new touchpads arrived at 1CC this week, and John Watlington installed them in two laptops for testing. They worked well with our 8.2.0 release candidate, including "tap to click" functionality.

Perú Laptop Problems:

4. Peru saw an increased failure rate on the fifteen thousand machines they just received from Quanta. About 0.3% of the laptops had display problems on

arrival, and 0.24% arrived with motherboard problems (bad WLAN or NAND Flash). OLPC has requested samples of the failing laptops, and will try to get Quanta and CMO to perform failure analysis as well. The good news is that for a cost of five minutes per laptop they can fix half of these using the displays from otherwise dead machines.

Firmware:

5. Richard Smith fixed an EC regression (Trac 8143) that was introduced in q2d13 but not discovered until q2e14. Now q2e15 has been released with this fix. It also includes an OFW fix for Trac 8216 which Mitch Bradley and John Watlington found late Thursday night.

Software Development:

6. The entire software team remains focused on finding and fixing the blocking bugs for Release 8.2, now targeted for the end of September. We have an alpha release candidate, 8.2-757 and are well on our way to closing down this release!

7. Marco Presenti Gritti, Eben Eliason and Simon Schampijer worked on the final launcher patch, which addresses many confusing UI behaviors. Marco also spent a lot of time reviewing patches, many of them submitted by our wonderful community. Bug triaging has been particularly challenging this week, given the great amount of test we are getting. Marco, Tomeu, and Riccardo have begun to investigate the memory usage increase.

Marco Pesenti Gritti worked on fixing the remaining blockers in time for the 8.2.0 feature freeze and to release them in Sucrose 0.82.1. He fixed a low level issue in Browse which was the cause of several critical bugs reported in trac, including not working downloads and crashes when closing dialogs. He worked with Eben and Simon on the final launcher patch, which addresses many confusing UI behaviors. As usual he spent a lot of time reviewing patches, many of them submitted by our wonderful community. Bugs triaging has been particularly challenging this week, given the great amount of test we are getting.

8. Chris Ball built and signed a Peru image for Erik Garrison, helped out with bug triage, and landed one of his last OHM features for 8.2 in Joyride: we now disable the wireless radio when entering "sleep" mode (via lid close or power button) if the mesh isn't active at the time. This saves a lot of power; there's no reason to keep the radio up during "sleep" if you're connected to an access point, because we don't wake up from sleep mode due to incoming wireless packets. We leave the radio on if you're entering idle suspend mode instead of sleep mode, or if the mesh device is active.
Remaining bugs for 8.2: #8062 (blocker), #8104 (high) and some polish bugs.

9. Jeremy Katz, Sebastian Dziallas and Jim Gettys have now succeeded at building a Fedora spin that will boot on the OLPC, capitalizing on Daniel Drake

and Bobby Powers's work of last week. Jeremy fixed a number of issues this effort exposed with the Fedora-Live-CD tools. Much work remains to pull together a trim installation, however. Details can be found in the following thread: https://www.redhat.com/archives/fedora-olpc-list/2008-August/msg00078.html

10. Sayamindu Dasgupta spent most of the week manually cleaning up files for some of the languages before they went into the latest release. In the process he fixed a number of plural forms related bugs in the translations. He also worked with the deployment people at Ethiopia, helping them test the Amharic keyboard layout. Sayamindu also released Terminal 16, with translation updates, and provided a patch in Sugar control panel, which lets users switch the user interface to Kreyol, Dari or Pashto. This should all make the 8.2 upcoming release.

11. Sjoerd and Daffyd Harries spent most of this week developing a tool for checking for inconsistency in the mesh presence information, to help us track down bugs like #6884 and #7893. Using this tool, we were able to produce symptoms similar to those described in #7893. We haven't pinpointed the cause yet, but since the information found in Avahi seems to be correct, our primary suspect at this point is the presence service.

12. Daniel Drake continued attacking 8.2 blocking bugs. He diagnosed several connectivity problems and solved a graphical rendering issue that was affecting eToys. Daniel's current open blockers:

#6929 sugar GPL licensing: committed, ready for next sugar release #7452 #7609 #7887: Record issues, Daniel finished reverting gstreamer in joyride and plan to release a new Record activity today (fixing all these bugs) Next week Daniel plans to investigate why one of Kim's laptops cannot rotate the screen (maybe a key mapping issue, since command-line xrandr works) and work on more blockers.. suggestions appreciated, Daniel may start with #8022 (X crashes when you go to the wiki hardware page).

Some interesting bugs for people to ponder over (currently not blockers): #8206 - os.fork() fails!?! #8104 - we are losing D-Bus messages, causing connectivity failures. Maybe we are also losing them in other places, negatively impacting (e.g.) collaboration?

13.Erik Garrison spent the week working in Lima with the Peruvian deployment team. He assisted with their questions as they assembled and tested changes in their activity set, and worked to improve future communication between the Ministry of Education and our home office. He is currently in Montevideo. He will attend the first session of the Ceibal Jam tomorrow.

School Server (XS):

14. Martin Langhoff and Douglas Bagnall released XS-0.4, with better DS-backup support (XO backup to XS), OS upgrade services (for the XOs) and better upgrades across versions of the XS. This version is now recommended as it is easy to upgrade to the next new release (ie, XS-0.5 when it comes out).

15. Douglas has been working on an "initial activation server" is ready to be released as an additional package to XS-0.4 and will be announced soon. An "activities installation/upgrade server" is also in the works and will probably work as an optional package for XS-0.4.

16. Work on a Fedora9-based XS is fairly advanced -- 'feature' packages install and work. and the main system configuration is working well. The main challenge is in the networking setup. Martin Langhoff has been working on this with invaluable help from Jerry Vonau, and things are fairly advanced. It is very likely that xs-0.5 will be based on Fedora 9.

Support:

17. Reuben Caron worked with the deployments in Rwanda, Ethiopia and Mongolia. He continued testing new builds, working with customization keys and language packs, and troubleshooting Amharic Keyboard issues. He installed and began testing with the new XS.4 build and will be trying the primary/auxiliary configurations in the near future.

18. Henry Hardy reports that volunteers from the community have been actively participating in administering services such as the RT ticket tracker, Trac and git, and in consulting on network and software configuration for some of our public facing servers. The Volunteer Infrastructure Group wiki page is found at http://wiki.laptop.org/go/OLPC:Volunteer_Infrastructure_Group.

19. Adam Holt and Brian Jordan worked in Austin all week on the FLOSS/OLPC/ Sugar Book Sprint, creating documentation to help improve this year's give 1Get 1 experience. Thanks to a dozen people who contributed intensively this week from Austin. We published a *major* draft early on the evening of August 29: http://en.flossmanuals.net/XO.   http://en.flossmanuals.net/Sugar. Please help further revise with the beginning learner in mind. Photos and critical explanations will provide both the Give1Get1 recipients and the general Sugar audiences with the 8.2 release!

20. This week, Brian continued organizing the Physics Jam,
Info-
Jam update blog: http://physicsjam.blogspot.com/
Wiki with jam info and schedule: http://wiki.laptop.org/go/Physics_Jam
Live and auto-recorded video: http://www.justin.tv/physicsjam

Coverage-

Slashdot:
http://developers.slashdot.org/article.pl?sid=08/08/18/2258228&from=rss
Kotaku: http://kotaku.com/5039115/olpc-physics-game-jam
Bullet 3D Physics Engine blog:
http://www.bulletphysics.com/Bullet/wordpress/uncategorized/olpc-physics-game-jam
OLPCNews:
http://www.olpcnews.com/content/games/olpc_physics_games_jam_wants_you.html
Brian also went to the doc sprint in Austin, TX and edited, screen shotted/diagrammed and documented his XO until it was too tired to continue (or maybe that was just it running out of battery).

Testing:

21. Joe Feinstein and Frances Hopkins focused test efforts on builds 8.2-754 and 8.2-757. The latest has shown to become our real alpha release candidate. Thirty plus laptops connected to a school server shared activities peacefully over many hours. A ten-laptop test bed shared activities over the simple mesh. Joe and Michael Stone are working on approaches to organizing "community testing" of XOs.

22. Walter Bender's sugar digests can be found at:
http://lists.laptop.org/pipermail/sugar/2008-August/007950.html and
http://lists.laptop.org/pipermail/sugar/2008-September/008068.html

From the Field

Landlocked Mali is vast – nearly twice the size of Texas – remote and impoverished. Half the West African country's 12 million citizens are under 16 years of age, and illiteracy estimates run as high as 70 percent. Mali, in short, is ideal for an XO deployment.

The children show off their new XOs

In mid-July, 30 machines donated by *Laptop* magazine arrived in the little Mali village of N'tentou, which is within the larger city of Ouéléssébougou, about 25 miles south of the capital, Bamako. There, Salimata Fandjalen Bangoura, a former *Laptop* employee, took charge. Her report:

"The eight-week program began with the teacher and volunteer training. They had no previous experience or knowledge in computer use, so it was necessary to familiarize them with the XO and computer technology before they took on the students. This was very important to help the teachers feel more comfortable teaching the students and answering their many questions.

A group of girls strolls home with their machines.

"The first few days there was no electricity in the school, so the XOs died pretty early in the day. When the electricity was finally installed, the XOs were charged in the classroom. So far, the most popular activities are Chat, Write, Record, Calculate and Memorize. The students are learning very fast, and are very appreciative of the opportunity. They even want to have sessions on the weekends. They share what they learn and know with their families, and the demand for an adult program is very high. Students who are not in the program flock to the school courtyard and windows every day. They are eager for their chance to come and learn how to use a computer."

OLPC so far is not widely known in Mali, a situation Salimata and the OLPC team hope to remedy later this year with a demonstration tour of the country. They are hoping to find financial support for a second-stage deployment, 1600 laptops – with Internet - in two local schools.

For more, go to http://blog.laptopmag.com/olpc-mali-village-teachers-learn-to-use-the-xo

These boys came to school early to get extra time with their laptops.

"We want to inform and educate people on the potential of the XO," she writes, "and what it could mean for the educational system in Mali. I believe this would be important in raising awareness and gaining support within the country."

Nigeria: Michael Tempel and Jacqueline Karaaslanian of Schlumberger Excellence in Educational Development (SEED, seed.slb.com) visited 1CC to meet with David Cavallo, Robert Fadel, and many members of the OLPC learning, technical and international teams. The gathering followed on a launch call to plan the deployment of the 6600 XOs being donated to Nigeria by Rusal (Weekend, August 17, 2008). SEED supports hundreds of schools worldwide – including nearly a dozen in Nigeria - by leveraging in-country staff. The plan is for SEED to be the deployment team in Nigeria. Planning and school selection will be done in concert with OLPC Nigeria.

Pakistan: At the invitation of the ministry of education, Habib Khan and his team organized a one-day workshop for a select group of 25 school principals and district education officers who run primary schools in the public sector. Habib opened the workshop with a discussion of the problems with basic education in Pakistan. These begin with issues of access and the quality of education itself, including the lack of curricula to keep pupils excited and involved in their learning, teachers motivated, and parents satisfied with their children's progress.

He also explained constructionism versus instructionism, and what OLPC is and how it triggers learning. Videos on OLPC deployment and the Pakistani pilot greatly motivated the participants.

Salman and Waqas then provided hands-on experience to the participants, who were deeply pleased with the Urdu XO. They

browsed through different activities, such as School Bag and Learn English, and shared activities via the mesh. The day ended with pledges from the participants to do whatever possible for deployment of OLPC in schools.

Software development: The Tarana Activity was created at the request of the children and teachers, who wanted a true Pakistani children's laptop. This activity contains the National Anthem of Pakistan in addition to popular other patriotic songs.

While designing this activity we had guidelines provided by teachers that Tam Tam provides a best platform for children make different tunes based on these songs."

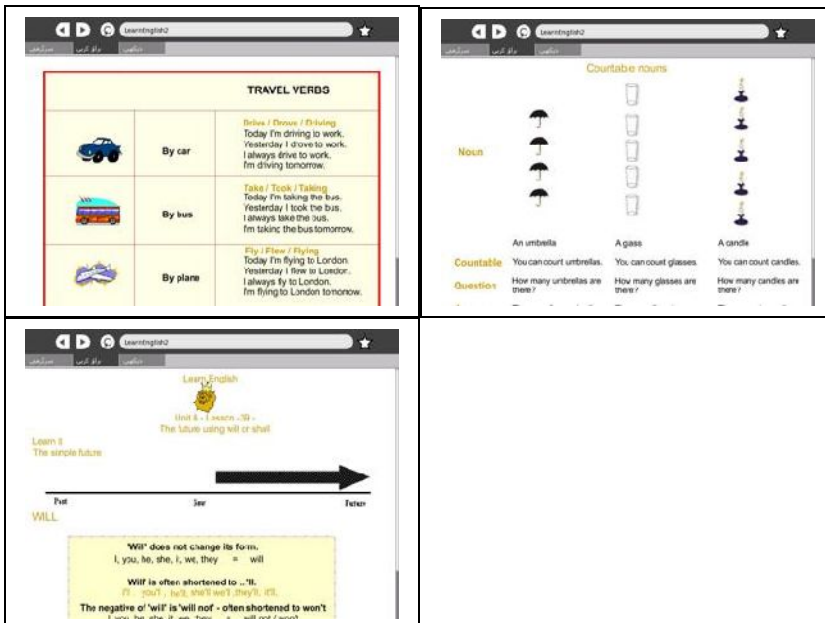http://wiki.laptop.org/images/f/f2/Trana-1.xo

Learn English Update (Content Bundle):
Iffat, a volunteer, added three more units to the Learn English Content Bundle, which is quickly reaching completion.
New units in the bundle include:
- Countable nouns
- Directions and their usage in sentences
- Travel and Transportation

Learn English Content Bundle Ver 2 can be downloaded from:
http://wiki.laptop.org/go/Image:LearnEnglish_Ver_2.xol

Pakistan's first pilot project, Atlas Public School, will reopen in a rented building as an afternoon school for slum-area Afghan children under make-shift arrangement with Karakoram Public School, which is a morning shift school.

Habib writes: "It is pleasing to note that the school management decided to give each child a school uniform. With this new outlook, their self esteem has greatly improved. The classrooms are better furnished. The children think that OLPC has brought them good luck in the form of new school building and school uniforms and they are very excited.

 "We are going to set up an OLPC lab at this school so that children of both schools can benefit from the XO laptops. An Internet connection even is possible, because the building has a telephone line.
"The principal has asked us to hold a teacher preparation workshop so when the instructors repatriate to Afghanistan they can carry with them constructivist learning techniques to be employed in their homeland schools."

Habib also recently presented an XO demonstration to Plan Pakistan, an NGO working for the development of child education and health in Pakistan, including the tribal areas and earthquake-damaged regions

"The team included their educational advisor, learning advisor and IT manager," Habib writes. "They were very excited to hold an XO in their hands as they have already seen the picture of XO in the Internet. We gave them a demonstration from the educational perspective to the more technical specification of the laptop, particularly its rugged design that is most suitable for the areas which they are active and running schools.

"The discussion concluded with an agreement for Plan Pakistan to visit our pilot sites to observe firsthand the impact the machines are having on the students' progress. We are hopeful that Plan Pakistan will place orders."