Community News

A weekly update of One Laptop per Child, July 14, 2008

Learning

Haiti: OLPC Haiti made significant progress with children and teachers using generative themes to guide beginning to develop projects on their laptops. What

Kryol on the XO

started as a simple discussion of a television show that several kids could not watch because they had no electricity at home, turned into a fifth graders' project to explore electricity. Using the XOs, they developed thought-provoking questions about electricity. Then, armed with their laptops as recording devices, they went out into the community to interview residents.

Not to be outdone, the fourth graders tackled the question of transportation. They broke up into groups to explore a wide range of problems and solutions, including rising fuel costs.

The third graders began their exploration of music using TamTam. The focus on music allowed them a chance to express their favorite music styles, artists and instruments, which gave them a unique way to connect learning to their culture.

Mongolia: The week's work started off with an update from the core team members who'd joined the OLPC team in the Gobi. The team discussed the challenges that face deployment on logistical, educational and support levels. Having experienced the lack of electricity and connectivity first hand, these core team members were now in a better position to address those challenges.

Intern Sonia Porter with students

Car trouble in the Gobi

The team noticed how quickly children were able to pick up the programs and how willing teachers and parents in the countryside were to learn from children. Everyone noted how the fears that teachers would be intimidated by the intelligence, pace, and openness of students was ungrounded in the rural areas. In fact, their experiences in the rural areas with children, teachers and parents all working well together and helping each other were liberating and enabled better planning for adoption.

On Monday afternoon the Gobi team prepared some exercises and project ideas based on what they learned from their teaching methodology. They went over the exercises and ideas with the rest of the core team.

The entire core team also worked together to deal with translation issues. Partly it was a team-building exercise, but also the goal was for the national team to take responsibility for the issue and its solution.

The teachers also were encouraged to design what they wanted to learn. Some teachers are quite adept at eToys, and were keen to get to know other programs like Tam Tam and Pippy/python. On Tuesday afternoon we had them break up into groups. Some of them worked with interns Tyler and Cris to learn Pippy.

Rwanda: Juliano Bittencourt and his wife Silvia arrived in country to support the development of the laptop sites and national team. In this first week, they met several times with Carine Umutesi from the Rwanda ICT Agency (RITA), and Eugene Karangwa from the ministry of education in order to create an action plan for the laptops in the schools. The plan covers points such teacher training, deployment logistics and development of community awareness. It also addresses the identification and selection of content to be loaded onto the XOs, as well as the need for a schedule for the start in the first schools.

The creation of a core team that will support schools in the roll out of the project was the most discussed topic, since it is essential for success and growth. RITA set up a team to translate Sugar and the main activities to Kinyarwanda. They

started working on Wednesday and so far have translated most of the Sugar-XO and part of the Sugar-Buddle packages in Pootle.

Juliano and Carine Umutesi from RITA met with Desite Alex, from Rwanda National Curriculum Development Center - NCDC, in order to identify available digitized textbooks that can be loaded onto the laptops. Since major publishers do not create materials in most local languages, including Kinyarwanda, NCDC developed and retained copyrights on some textbooks of their own for students in the first through third grades.

Birmingham: The summer workshop at the Glen Iris School has begun with 40 students, who will create projects along the generative theme of educating the community about health issues.

Eighty elementary school teachers went through the first phase of professional development. They responded positively. The next step for them is to work with children in parallel with their own continued learning.

The Birmingham schools received their remaining 14,000 laptops. The city began information sessions at the public library. Various community groups and businesses have joined forces to help students, parents and other community members learn more about the laptops, as well as learn how to do the more straightforward repairs. Plans continue for a large public Expo at the end of the summer term to demonstrate the possibilities, heighten awareness, and build towards citywide impact.

Technology

Connectivity:

1. Javier has pushed the thin firmware wireless driver (libertastf) to the wireless-testing branch and verified WPA operation in Access Point mode. Integration work in our builds will commence as soon as we hear from upstream.

2. Ricardo has moved to Princeton for the rest of the summer. He will be working out of Planetlab on his usual wireless testing and optimization activities. He has also spent time this week helping a team of Uruguayan volunteers on a wireless traffic visualization tool. His advisor at UFF, Luiz Magalhaez and his student will continue and expand on Ricardo's work.

Touchpad:

3. The new "mouse mode" touchpad driver discussed last weekend hit Joyride this week and initial reports were very encouraging. Several people have claimed that it is the best they have seen the pad operate yet. The kernel team has backported the modifications to the older stable kernel so that it can be installed on builds 656 and 703. This allows our G1G1 users and deployment countries to install and test this new driver.

The next step will be to fine tune all the conditions under which the kernel needs to issue a recalibrate request to the touchpad.

Keyboard Testing:

4. The testing of the new keyboards (to improve the key tearing issue) continued this week, with the realization through measurement that the "50g stroke force" keyboards were really "75g stroke force" (the "70g" were really "85g"), which explained their "harder" feel relative to the production 50g stroke force keyboards. Quanta is looking into this, as out of spec prototypes are a concern.

Firmware Changes:

5. Quanta is revising the motherboard to make incremental cost improvements. We are also improving protection on the microphone input. In order to best track this, we are incrementing the motherboard ID to C3 (from C2). Richard Smith made a few tweaks to current EC code to support this new ID. Unfortunately, our firmware (until this revision) has suffered from lack of forward compatibility. We are working with Quanta and countries to ensure that only new firmware (Q2D17 or later) will be loaded on these new motherboards.

Richard took the opportunity to add some special debugging flags that allow Open Firmware to disable the battery and 1-wire state machines. This will be very useful in future battery debug sessions because the batman.fth debugging add on will no longer have to put the EC into reset to do its magic. This means

the keyboard, touchpad and buttons will remain functional. These flags are only accessible after a developer-key is used, so they should not present any denial of service attacks.

Release and Development:

6. Greg Smith continues to update the Release Process: http://wiki.laptop.org/go/Release_Process_Home
He has started the release notes page for 8.2, prioritizing bugs, and reaching out to deployments to determine who will use it and who can test it before it is final.

7. Michael Stone worked with Greg Dekoenigsberg to facilitate conversations between Fedora and OLPC contributors. He also ran several discussions on software, release, security issues, and improvements to our real-time collaboration technology. He packaged several network status and datastore backup utilities and announced the availability of new source code changes in the build and security software that he maintains.

8. Chris Ball added a "Power" section to the graphical Sugar control panel, which allows two new modes to be enabled. One id automatic power management, where the screen will dim and CPU will turn off after one minute of idleness. Two extreme power management, where wireless is disabled entirely, in addition to automatic mode. We measured 16.25 hours of battery life with the machine idle.

9. Tomeu Vizoso worked on stabilizing the development builds and helping David Van Assche who has volunteered to package Google Gears for OLPC. This work has exposed some issues in Browse that, once fixed, will allow the installation of several Firefox extensions. Riccardo Lucchese, an intern at OLPC, will work on Browse performance during the next months.

10. Morgan Collett built Telepathy packages with the patches to work with Rainbow. He created releases of Presence Service and Chat for the Sucrose 0.81.4 release. He also blogged a walkthrough of the Jabber Chat feature (http://morgancollett.wordpress.com/2008/07/11/chatting-to-sugar-from-a-pc/).

11. Daniel Drake continued smoothing out the Joyride builds and worked through some QA testing feedback from Charlie Murphy. He contributed a patch to GStreamer which enables an unmodified GStreamer to be usable with the XO webcam, and developed PolicyKit-olpc to solve a policy-related bug. Additionally, he worked on modifications for packages which will remove at least 15 new dependencies from our Fedora 9 builds.

12. Daniel released Record-55 for compatibility with the newer GStreamer libraries present in Joyride/8.2. Backend improvements result in much smoother switching between capture modes and turning off the microphone when we are not recording audio.

13. Sayamindu Dasgupta documented the translation workflow currently being used for software translation at OLPC: http://wiki.laptop.org/go/Localization/Workflow . He sent out a draft proposal on a procedure to add translations to an OS image after it has been released. He released Terminal-13, which adds a number of new translations. He also set up a test installation of Review Board, a web-based patch review tool, for evaluation by the Sugar development team: http://xenguest1.laptop.org/ . Sayamindu also helped set up new translation teams for Norsk bokmål and Slovenian. Thanks to Kent Dahl and Denis OÅ¡tir for taking the initiative for these languages.

14. The Sugar team announced the Sucrose Development Release 0.81.4: http://wiki.sugarlabs.org/go/ReleaseTeam/CurrentRelease/Sucrose . This release contains a new Browse activity (version 92) that fixes download problems. Simon Schampijer added refinements to the auto completion feature. Due to a name change of the Browse activity (Web->Browse) you will need to use a new procedure to update Browse: http://wiki.sugarlabs.org/go/ReleaseTeam/Releases/Sucrose/0.81.4#Instructions_to_test_in_olpc_joyride .

15. Martin Langhoff worked on the restore side of the XO backup to a school server. Restore now has a workable prototype. For the Restore facility to be deployable in the field, it requires Browse to provide XO-XS automatic authentication, which shows up next on the TO DO list. There are many subprojects that depend on it.

16. Various other school server projects are starting to gather volunteers or are already underway: a web extension to the Journal by Robson Mendonca, packaging efforts from Fedora volunteers and a push for Offline Moodle by David Van Asshe and Tony Anderson.

17. Erik Garrison implemented a first-pass of the grab/scroll key functionality. He also started work on enabling LZO compression for the XO filesystem.

18. Deepak Saxena worked with Andres Salomon and Jordan Crouse on kernel issues to determine how to get components upstream and what bits we can just drop. He is trying to simplify our whole build process and make it more automated. He also spent some on the intermittent suspend/resume hangs that Chris Ball has found.

19. Jim Gettys met with Larry Peterson and Vivek Pai at Princeton University, to investigate whether some mutually acceptable licensing of HashCache developed by Anirudh Badam, Larry and Vivek. HashCache is a very high performance, very low footprint web proxy that will be very welcome on our school servers (and possibly the laptop itself). It appears it may be possible to find an acceptable licensing solution, though this is not yet absolutely certain.

Activities:

20. Brian Jordan and Alex Levenson worked on a new (fun and usable!) version of the Physics activity: http://dev.laptop.org/~bjordan/Physics-0.2.xo
They invite comments and contributions. Brian is planning a Physics (Game?) Jam for late August. Please contact Brian (at laptop.org) if you are interested in helping. http://wiki.laptop.org/go/Physics_meetings/July_10%2C_2008 .

21. Bobby Powers continued refining his activity, Model, adding support for drawing flows between stocks and greatly improved the text rendering. He released an updated bundle linked to and from the wiki. Finally he added a VGA connector to a B3 to allow it to be used at events for playing video loops on an external monitor.

22. Faisal Anwar of Media Modifications is documenting the community's best coding practices and conventions into a "Sugar Almanac". Last week he solicited community feedback on internationalization, the activity registry, mime types, and profiles. This week he worked with the community on Sugar logging.

23. “This week I reached a milestone in one of the projects that I have been pursuing since the beginning of this year,” Manusheel Gupta writes. “Dan Bricklin, co-inventor of VisiCalc (the first spreadsheet activity), Luke Closs, an employee from Socialtext and K.S. Preeti, a senior year student from my university, succeeded in running SocialCalc (Spreadsheet activity) on the XO. This happens to be the first activity written in JavaScript to have been integrated to Python-based Sugar environment. We did this through XOCom, a wrapper function. The XOCom package will encourage the JS community to participate in developing software and content for Sugar.

http://www.socialtext.net/socialcalcxo/index.cgi?sweet_socialcalc and
http://wiki.laptop.org/go/Browse#Install_an_activity.

24. K.S. Preeti and Dan are making the activity match with the OLPC UI Guidelines. I will soon have a word with Jim and Kim, once we complete this step.

Language:

25. Bastien Guerry has set up the Kreyol list for discussion of localization into Haitian Kreyol, and bilingualism in general. See:
http://lists.laptop.org/pipermail/kreyol/ ,
http://olpchaiti.org/interne/haitian_creole.php

Video:

26. DailyMotion, which not long ago set up a demonstration site for XOs, is planning a video campaign to solicit new uploaded materials for OLPC: http://olpc.dailymotion.com./us

Sounds:

27. Phil Bordelon and Richard Boulanger have finished compiling an updated torrent of the 8GB OLPC Sounds collection, which remains quite popular, with almost 10,000 downloads. Please digg the new url: http://tinyurl.com/64kh6t

Community Outreach:

28. SJ Klein has been managing the contributors' program and reports that we have shipped 136 XOs and 9 active antennas over the past two weeks. This team is reviewing new hardware and project requests via its online database at projectdb.olpc.at . An overview of projects supported by the contributors program can be found at wiki.laptop.org/go/Contributors program .

In addition, some local project leads are finding and exchanging XOs through local laptop pools. OLPC Deutschland is tracking their XO pool online: http://future-wiki.olpc-deutschland.de/wiki/XO-Vereinsgeräte . OLPC France and groups in Boston and Cincinnati are planning to start tracking pools as well.

29. The MIT Museum has set up the first stage of a long-term XO exhibit in their main area, and is setting up six XOs this month as an interactive exhibit. They have started hosting weekly Open Jams that Francesca Slade is running on Saturday afternoons this summer.

30. The Museum of Science in Boston is testing their Engineering is Elementary materials with XOs. They are thinking about how to expand that series to involve activities, simulations, and games. Two of the scientists who developing these materials plan to come to the next Boston Game Jam at the end of August.

31. Ankur Verma spent a week at Paris competing for the world finals of Imagine Cup under the Embedded Development category, where he was selected among 15 teams around the world. Congratulations, Ankur!

Testing:

32. Joe Feinstein and Charlie Murphy continued testing groups of XOs in various "real life" simulating environments - with and without presence of the school server. The "back-up" build 708 (for 8.1.1 release) demonstrated promising results, while "development-level" builds (for 8.2.0 release) are still "a promising work in progress".

They also organized the Trac meeting which concentrated on analysis of possible improvements towards using the existing Trac for bug tracking purposes. The meeting was held on Thursday and will continue next week.

33. We started work with a Chicago volunteer group on test case creation, as well as involving students in the area in multiple laptop exercises to simulate the field (developing countries) educational environment.

Support / Sysadmin:

34. SJ Klein and Henry Edward Hardy are upgrading our wikis to v. 1.13 and adding semantic wiki functionality. Henry Edward Hardy is adding some enhanced web analysis tools for our webserver logfiles for our websites.

35. John Watlington and Kim Quirk will be visiting Peru ministry of education. On the agenda are repairs, troubleshooting, development of local technical support, the escalation process to OLPC, the software roadmap, Issues/concerns from Peru and a visit to a school.

36. Seth Woodward, working with Adam Holt, held discussions about Getting Started documentation, FLOSS Manuals, and a Help activity. This effort to addresses the major question asked during first Give One Get One program -- How do I get started? Where is the manual?

37. Frances Hopkins and Sean Hooley provided statistics on the current G1G1 program over the last four weeks and the trends of calls, emails, and requests for replacements is really going down!

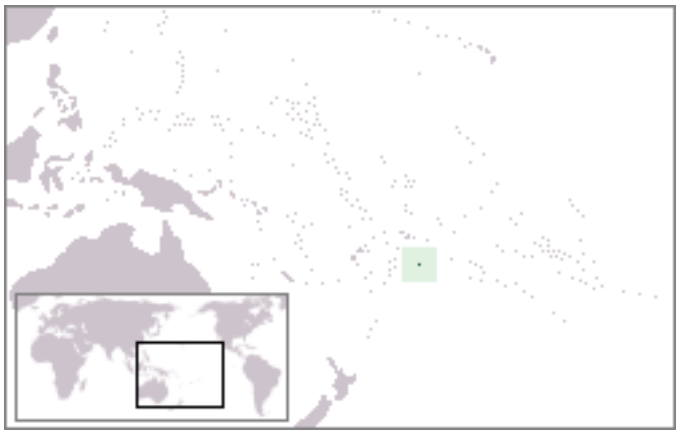
Elsewhere:

38. Michail Bletsas met in Rome with Paolo Paganucci, vice president for innovation business development at Telecom Italia. They discussed the use of USB 3G modems with the XO. Telecom Italia has a strong interest because of the various Italian pilots as well as the possibility there will be a G1G1 program in Italy.

39. Michail and Giulia D'Amico visited Christian Di Maggio and his team at the Italian Ministry of Education, Universities and Research. Christian is responsible for innovative educational technology at the ministry. He is a very enthusiastic supporter of Constructionism and the XO and is about to spend a month in Brazil with Lea Fagundes. The technical parts of the discussion had mostly to do with interfacing peripherals with the XO, focusing on the "Smart Boards" with which the Italians are currently at work.

Deployment

Oceania: The XO marches inexorably across the Pacific, most recently to the remote island of Niue, where 500 laptops will saturate the nation's entire school age population.



Niue is the dot in the blue-shaded box Wikipedia

The computers are part of a tranche of 5000 machines that OLPC has donated to the region.

Pakistan: On July 4, Habib Khan visited FATA – Federally-Administered Tribal Areas - at the director of education's invitation. His report:

"I spoke to all of the directorate officers on the constructivist theory of learning and how OLPC realizes this theory in practice. During the half day I spent with these officials, a consensus developed to try out OLPC in some accessible FATA schools. They asked me to hold a day-long awareness workshop for a group of 20 to 30 senior principals and teachers.

"FATA is a very sensitive area along the border with Afghanistan, where there was a recent escalation in the kidnapping and killing of innocent citizens, as well as school burnings. The Pakistan army launched a campaign against the terrorists, who have been silenced for the time being."

The Atlas School: OLPC's first pilot project, in a slum neighborhood of Rawapindi, has been shut down by its landlord, who wants to devote the property to more "economically viable" activities, Habib reports. The Atlas principal is in search of a new space. Meanwhile, Habib and his helpers found four of the Atlas School pupils - Muhammad khan, Khayal Muhammad, Muhabbat Khan and Amir-u-llah – at a local produce market.

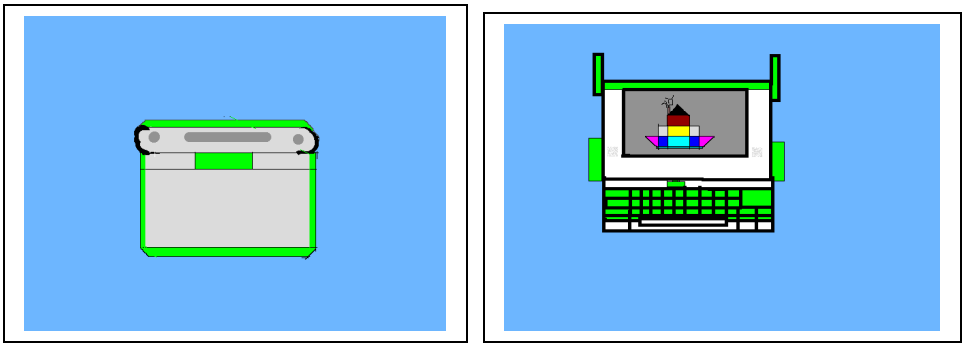
"The children," he writes, "could not believe that we would make the effort to follow up with them. They said they never thought they would ever see us again, because the owner of the building has closed the school forever.

"The children were angry, but despite their frustration, they still were determined to learn. They said that they worked on their OLPC laptops daily, and carried them to work on when ever possible. The confidence on their faces was a true reflection of OLPC's miraculous impact on children. They claimed that their daily labor has not interrupted their use of OLPC.

"It is interesting to study these children's learning curves, which have abruptly gone up despite the absence of a constant supervisor, teacher or instructor. They spend most of their free time using their XOs. Favorite activities include painting

and composing music and sharing their compositions with their friends and family.

"Amir-u-llah who sells onions and tomatoes at the produce market, has composed these two pictures of the XO in Paint on his machine."



Review of localization: "Urdu localization," Habib continues, "was completed a long time ago and put into use. Our last and comprehensive feedback came from both students and teachers that we are using in revising the current version to a better localized format. For this feedback, we are thankful to all teachers and student of our two pilot projects – the Atlas Public School and the Mehfooz Shahid Model School, located in a rural area of Islamabad. The review is now almost completed. Among the issues brought to our attention:

- Apparently Urdu hasn't yet fully been converted into a scientific format. Consequently, some kids had problems understanding terminologies of computing in Urdu. We addressed this problem by using mixture of Urdu and English languages to make an understandable sentence.

- Some words when translated into true Urdu require a high level Urdu vocabulary, which is very rare among the educated classes, let alone children. Urdu spoken in Pakistan is a mixture of English and Urdu. Here again, we changed them to more basic colloquial Urdu supported by its English equivalent that are in common use. It enabled the child to appreciate and proceed with learning."

And in other news…

Rabi Karmacharya has posted a wonderful blog from Nepal.
http://blog.olenepal.org

Walter Bender's excellent Sugar Labs digest can be found at:
http://lists.laptop.org/pipermail/sugar/2008-July/006792.html