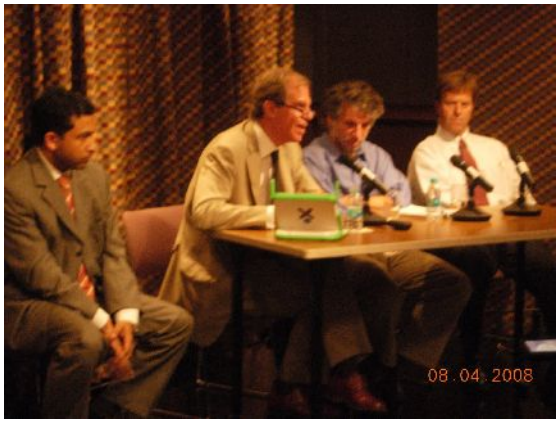
Community News

A weekly update of One Laptop per Child August 12, 2008

India: Nicholas and David Cavallo spent Monday in Mumbai with Satish Jha, president of OLPC India, under the aegis of Reliance. The day's events included a national video conference, a meeting with Johny Joseph, chief secretary of the state of Maharashtra and a lecture to the Asia Society. Maharashtra is huge, with 100 million people, or about 10 percent of India's total population.



Manu, Nicholas and David at video conference

On Tuesday, Reliance and the Digital Bridge Foundation organized a one-day workshop for teachers, laptop donees and volunteers. The goal was to provide a basic understanding of the XO and the OLPC approach to learning in a saturated deployment. The program motivated many attendees to launch new XO deployments and also to improve existing XO sites in India.

On Wednesday a similar workshop was held in Goa, organized by Dr. Rita Paes, the director of a local teachers' college, and sponsored by the Goa Chamber of Commerce. Just as in Mumbai, more people and sites were engaged. With the support of local business and the teachers' college, they will pursue a statewide deployment initiative for Goa, which already is advanced in providing connectivity and computers to schools.

Nicholas receiving his roses

Nicholas, David, Satish, Manusheel Gupta and the Reliance team also visited the remote Vastishala Khairat-Dhangarvada School, 81 km from Mumbai, where Carla Gómez Monroy deployed XOs some months ago. The children sang for their visitors, and presented them with red roses. Sandeep Surve, Khairat's single teacher, believes deeply in the OLPC program. "Education through XOs has completely solved educational problems like child absenteeism, parent-teacher interaction, and lack of interest towards education," he said. "Children relish coming to school every day, and their interest towards education has risen dramatically."


A Khairat School student with his XO

Learning

Haiti: It was a busy week at OLPC Haiti as the team wrapped up the summer camp at Republique de Chili. Every major television and radio station came out

as well as several government officials, including the ministers of education and communication and public works. One of the second graders showed off her problem-solving skills to the minister of education. When her computer lost power as she was attempting to demonstrate her very impressive work in E-toys, the student ran to charge her laptop while a reporter held the minister's attention. Within five minutes she returned with a gentle tug on the minister's sleeve, excited and determined to display her work.

http://www.youtube.com/watch?v=9T1hLfcy_xI

At the end of camp, the teachers wrote reports on their personal XOs for the Ministry of Education. They were uniformly enthusiastic about the program, and training team, and impressed with how the kids easily worked with one another. They thought the training period was too short, that the students' parents should have been more involved and they asked for more content.

The team spent the rest of the week working on the operations manual. This was both a content-driven task and a team-building exercise, led by national coordinator Guy-Serge Pompilus, and organized into three parts - administration, technology and pedagogy.

The translation of Pootle is now 67 percent complete, and the core system is 97 percent finished. Translation of the Getting Started OLPC guide is in progress, and the team is double-checking the current translation because many volunteers did not use Haitian kryol. They also have started to translate Scratch, as well as finish Etoys.

Here is an FAQ for the translation http://olpchaiti.org/interne/faq_traduction.php

Rwanda: This week saw the first teachers' development workshop, conducted from Wednesday to Sunday in the Regional ICT Research and Training Center. Sixty-five teachers participated from the three launch schools in the districts of Kagugu, Nonki and Rwamagana.

The core team involved the teachers in simple XO activities, such as using the camera, text editor, and Speak. They explored mobility by taking activities outside the classroom. The main goal was to break any initial fear among the teachers, and to make them comfortable with exploring the laptop by themselves. They also used more complex tools such as Scratch, doing basic programming to create short dialogs in a very playful way.

The experience was valuable to the core team, too, for they will be the ones to provide long-term support as the deployment expands to more schools. The OLPC team feels they are gaining broader acceptance from other ministries and organizations. The national coordinator, the primary participants, the core team,

and the OLPC team continue to develop a strong collaboration. People are very enthusiastic.

Technology

China: The Summer Olympics aren't the only big news coming out of Beijing. Nortel Networks is setting up a research and development center in the capital to develop localized software activities and content for One Laptop per Child in China. Anthony Wong, Manu Gupta, Robert and Darah Tappitake are working with Eric Lauzon, CIO of Nortel Asia and Teresa Oon, IT and Business Operations head to develop a framework for this project.

Networking

1. Michail, Ricardo, Kim, Javier, Ronak Chokshi from Marvell and all the Nortel people involved with OLPC conferred in Cambridge on how to advance Nortel's involvement with OLPC's mesh. It was decided that for now Nortel would have the strongest positive impact by assisting Ricardo with his MAD – Mesh Adaptation Daemon - effort and helping to fine tune the wireless driver. MAD is a user space process that watches mesh statistics and dynamically tunes operating parameters like path expiration times and allowable transmit rates.

In the next few months, Marvell will release the SDK for the 8682 (the wireless chip that will replace our current 8388 in early 2009), and we hope that the company will be able to have some engineering resources available to work on firmware-level code for the wireless chip.

Javier will start investigating real-world performance of mesh multicast schemes by implementing them on top of the open802.11s software stack. We expect to have such functionality available on the 8682.

2. Mitch Bradley fixed an OFW2 bug which made "text mode" Windows screens look garbled (choppy blue screen of death, anybody? ;-). He has completed the first phase of the Windows-support work. The second phase involves support for booting Windows from the internal flash.

3. Deepak Saxena worked primarily on tracking down and fixing an audio quality regression issue (#7603) in the 8.2 release. Deepak also started setting up new kernel repositories as outlined in http://lists.laptop.org/private/techteam/2008-June/000500.html .

Releases/Deployments:

4. Greg Smith, with help from Francesca Slade, created a new page to track location as well as the hardware and software status of deployments. See: http://wiki.laptop.org/go/Deployments

5. Greg also finalized release 8.1.1 (build 708). Read the release notes carefully as this release is not for everyone. Do not use it with an SD Card and be prepared to re-install activities if upgrading from a build earlier than 703. See: http://wiki.laptop.org/go/Release_Notes/8.1.1

6. Kim is working with a number of people to get the 8.2.1 (build 710) finalized. For details of fixes in this release, see: http://wiki.laptop.org/go/OLPC_SW-ECO_6

7. Guillaume Desmottes spent some time this week with Greg, Michael Stone, Dafydd Harries and Morgan Collett to triage and prioritize the collaboration tickets.

8. Greg, Kim, Jim Gettys, and Michael are part of a regular team that is doing daily triage of new bugs for 8.2.0. We will be starting change control and choosing just the bug fixes that we want in the next few days in order to get a ship date for this release.

Software Development:

9. Jim worked with Greg Dekoenigsberg and Sebastian Dziallas to explore the feasibility of an easy-to-install "conventional" Fedora distribution (these are called spins) for the OLPC. Preliminary study suggests this is simple to do. While considerably larger than the OLPC distribution, it would be small enough to install easily, unless support for Eastern languages is necessary.

10. C. Scott Ananian continued integration and upgrade work, releasing new versions of Sugar-update-control and OLPC-update. He also worked with Martin Dengler to help diagnose and fix a bug which broke networking in Joyride builds. Prodded by Chris Ball's frustration at the delays involved in getting new code into a build, he took apart the joyride package collection system and stared hard at all its components until he found a tricky bug in an implementation of __contains__ that caused it to invoke itself 33 million times over the course of a short run (!). Fixing this bug (and performing a few other performance improvements for good measure) sped up package collection from several hours to about 10 minutes. As a result, the joyride build process is now started hourly, instead of every three hours, reducing the testing cycle time.

Scott also investigated the space penalty imposed by adding an XFCE environment to our basic build. Initial results (on the 'faster' branch) show a 50M space penalty, even without adding applications for use in this environment.

11. Erik Garrison worked on implementation of partitioning support, plus building build-side tools to integrate with Open Firmware's partition update system.

12. Sayamindu Dasgupta spent most of this week trying to coordinate with the translators on pushing in translations for the next release. He also wrote patches to fix the Dari keyboard issue and to partially resolve the Amharic Compose sequence issue.

Sayamindu spent most of this week trying to coordinate with the translators on pushing in translations for the Sucrose 0.82 release. At the time of the Sucrose release, the following languages have more than 80% translations done for Glucose and Fructose modules (and a few other extra activities).

Language	Overall %
Greek	100
Sinhala	100
Turkish	100
Dutch	99
German	99
Kinyarwanda	98.5
Spanish	97.5
Nepali	97.5
Italian	97
Kreyol	97
Marathi	96.5
Mongolian	95.5
French	95
Telugu	94
Urdu	93.5
Slovenian	82.5
Dari	80
Pashto	80

Note that this does not include Etoys translations.

13. Chris Ball worked on several power manager features which are present in the new weekly build (joyride-2263). The "sleep" functionality on lid close or power button press is now more robust, will reliably wake on lid open, and saves battery life by no longer having temporary wakeups for deciding whether to wake up fully. The "olpc-hardware-manager" script has now been retired, with all of its functionality taken over by OHM, which saves us 5-10MB of RAM.

14. Michael wrote about OLPC's "security" software subsystem, updated the rainbow and OLPC-utils packages and scheduled a meeting with the Boston Linux and Unix User Group (blu.org) for the night of August 20th.

15. Eben Eliason created some new mockups (to be posted shortly) for Creative Commons licensing integration in the Journal, and for a Speech device which will provide text-to-speech throughout Sugar.

More Software Activities:

16. Deepank Gupta made tremendous progress with Mohit Taneja on the Food Force project. www.code.google.com/p/foodforce). The efficiency of the project has increased dramatically with the development work on the following features:

1. Optimization of the collision detection algorithm
2. The frame rate has been adjusted to make a better experience for the children in the shared mode
3. The changed sprites in a frame are only displayed instead of the game canvas.

A number of reported issues have been fixed, too:

1. Unhandled exceptions
2. Increasing the minimum zoom level
3. UI issues on the movement of villagers near the rural facilities.

Integration of texts and creation of a Sugarized package will be completed during the coming week. The project will be released for testing and feedback on August 15th.

Spreadsheet Activity:

17. Manu and K.S. Preeti have been building use-case scenarios to check the performance of the spreadsheet activity. http://lists.laptop.org/listinfo/socialcalc

Educational Toolkit:

18. The code in the “model” module was re-factored and the user interface of the project now supports better interaction tools. Ross is about to complete the performance testing of the connection module. http://dev.laptop.org/git/activities/Educational_toolkit)

School Server (XS):

19. Martin Langhoff reports that the "xs-rsync" package is available, which allows the XO to back up its data to the XS. In general terms, it allows publishing of resources on the XS via rsync, with special support for XO update images. More documentation at http://wiki.laptop.org/go/XS-rsync. Scott has applied a small patch to OLPC-update that adds support for a server parameter.

A mechanism for triggering scripts when you insert a USB disks into a XS is ready. This allows us to deploy content and management scripts via USB disks.

Policy and guidelines on how to use this, including security, are taking shape. The mechanism uses a ported version of usbmount - early documentation at http://wiki.laptop.org/go/XS_Automount_triggers

Douglas Bagnall started working on the school server this week. He tackled some bugs in the idmgr (#7606 and #7653), but most of the week really devoted to familiarization with Fedora and the specifics of the XS. For a while he was befuddled by a faulty network card, but by Friday he was back in control and enjoying himself.

20. Thanks to Axel Thimm we have a fixed fakeroot on the XS, and one less race condition. Jerry Vonau is exploring the Fedora 9 port for the XS, looking at our custom network scripts, xs-config and livecd/installcd build infrastructure.

Community/Activities:

21. Alex Leventhol created a poster about his work on X2O and finished a working framework that the MIT gamelab programmers got quite excited about on Wednesday.

22. Francesca finished her work on making Semantic MEdiaWiki accessible to other wiki editors, which will greatly help us organize our data-rich categories.

23. There are a number of groups interested in getting laptops for development and test purposes such as SFXO, Fedora, and Ceibal in Uruguay. SJ Klein is working with them through the contributor's program.

Testing:

24. Charlie Murphy, Francesca, Seth Woodworth and SJ put finishing touches on the design of the test case writing/reporting system. They were helped by S. Page, Asheesh, Diane Serley, Michael and Henry Edward Hardy. The first test cases and some results can be seen here: http://wiki.laptop.org/go/Test_cases_8.2.0

25. Greg and Michael have been helping get the word out for others to help test: http://wiki.laptop.org/go/Friends_in_testing . Martin Langhoff is coordinating a Wellington, NZ smoketests-and-brunch morning with various Wellington hackers.

Support/SysAdmin:

26. Erik and Kim are working with Hernan Pachas to prepare the next 15,000 laptops to be upgraded and activated. They will be supplying a developer to take over the maintenance of their scanning code software. They also are updating the content in this next upgrade. Erik has also been involved in Uruguay's

problems with the Nand-full issue. He is helping them with thoughts on how to integrate our solution with their code base.

27. Kim finalized the Letter of Intent for allowing some ecommerce websites to sell OLPC spare parts. We hope to take the first orders in the next week or so.

28. Greg Dekoenigsberg of Fedora and Red Hat and Henry are exploring utilization of community resources to enhance our systems administration capabilities. A mailing list, olpc-sysadmin@laptop.org, has been established to facilitate this collaborative effort.

29. Mike Lee, a volunteer and active long-time friend to OLPC and the Media Lab, came by CC100. He is debugging a periscope for the XO so that you can look at the computer screen to see the scene you want to record. It is progressing but too still not yet ready for release.

30. Jack has been fixing the TurtleArt intro. Since this is his last week at OLPC he is working on getting everything uploaded to the wiki. Currently the TurtleArt intro is on the wiki as a book. Cynthia also uploaded a really nice paper by Marvin Minsky on kids and computers.

31. Brian Silverman and Artemis Papert have made three books using TurtleArt and describing the scripts as Logo procedures. Cynthia is now converting the procedures to TurtleArt scripts. Some pages of the TurtleArt books are viewable online at http://www.blurb.com/bookstore/detail/318689

32. Morgan Collett assisted with triaging the collaboration tickets for 8.2.0. He released Chat-45 for the Sucrose 0.82 release. He started on a version of Read using Cerebro as a back end instead of the existing collaboration framework, as a test case and for performance comparison. He also started contacting activity authors of older activities to find out if they can be updated or if they need a new maintainer, and to survey the needs of activity authors.

33. Marco Pesenti Gritti released Sucrose 0.82 and packaged it for joyride, in collaboration with Simon Schampijer. He fixed a critical bug which was causing the second instance of some activities to crash. He looked into the Arabic issues, landed some of the patches and suggested a solution for the remaining problem with icons direction.

34. OLPC intern Francesca Slade and community volunteers have done excellent work in implementing our new semantic wiki capabilities for testing, deployment reporting, and activity tracking. Volunteers S. Page, Asheesh, and Diane Serley, intern Seth Woodworth and OLPC'ers SJ Klein, Michael Stone and Henry Edward Hardy contributed.

35. Richard Smith continued to work on the EC command timeouts. Most of the week was spent testing the new "fastpath" command code. Most EC commands are now processed in under 3ms with periodic spikes up into the 9ms range. The spikes are the result of the EC code doing other tasks before rolling around to processing the command. If necessary these spikes can probably be eliminated by identifying what parts of the EC code are taking the longest time to process and either reducing that processing time or interleaving command code processing inside those routines. Using multiple machines in his suspend/resume test bed he has run over 100k cycles without seeing a timeout. While Richard won't claim that the original problem is fixed because the root cause of the timeouts was never identified he's moving on to other things. Richard is going to continue to run his suspend/resume testbed and watch for a re-occurrence of timeouts.

The thermal issues that we plaguing the multi-battery charger now appear to be solved. Thermal tests on the 2 existing prototypes by both Flextronics and RCAL are passing. RCAL is now going to perform a destructive test to determine the max operating temp of the unit.Prosoyo shiping 10 units from the chassis they have built and RCAL will assemble these into complete chargers. The remaining 40 chassis will be shipped after they are completed. The 10 units will be used for further testing and software development. At least one of these units (and probably 2) will be sent to the OLPC offices.

36. In between continuing ad-hoc testing of joyride builds, Paul Fox managed to get the EC code booting (built under sdcc) with enough stability to bring the laptop up. This sped up the debug cycle dramatically, since the SPI flash can now be reprogrammed in-place.

37. Michael Stone coordinated volunteer testing by broadcasting and amplifying the request to help test joyride-2263 on the Wiki, forum, and on many mailing lists. He also ran meetings, created trac reports, produced some builds for release 8.1.2 (ECO-6), wrote about OLPC's "security" software subsystem, updated the rainbow and olpc-utils packages, scheduled a meeting with the Boston Linux and Unix User Group (blu.org) for the night of August 20th.

38. Walter's most recent two Sugar digests can be found at:
http://lists.sugarlabs.org/archive/iaep/2008-August/001439.html
and http://lists.sugarlabs.org/archive/iaep/2008-August/001471.html

From the Field

Pakistan: An advertisement Habib Khan ran in the Punjab press reaped these responses: Eighty-two callers inquired how to purchase one or two XOs for their children; Two NGOs said they wanted to provide about 150 XOs each to their schools; Almost everyone asked about a warranty, and wanted to know about machine repairs.

The OLPC user's manual in Pashto and Dari for Afghanistan is finished, thanks to the help of two Afghan volunteers, Usman Mansur Ansari and Sohaib Ebtihaj Obaidi, both graduate students at IIU Islamabad. The manual is under review for translation of technical terms by the Ministry of Education and the Ministry of IT and Communication in Kabul. It is downloadable at:
http://wiki.laptop.org/images/f/f7/OLPC_Manual_Dari_English_%26_Pashto.pdf

Telecom, a popular IT magazine in Pakistan, visited the OLPC office to learn about OLPC, and to interview Habib for a forthcoming issue.

The Islamabad office also added three more books to their school bag activity, as well as Units Five and Six to their Learn English content bundle.
http://wiki.laptop.org/go/OLPC_Pakistan_Activities

Localization of Urdu received a lot of feedback from the children and teachers. The completed translation reviews can be seen at: http://dev.laptop.org/translate/ur/

Habib reports:

"Our prized school for slum children has finally found a small house where it re-opens later this month. The other school, Mahfooz Shaheed in Korall valley, also re-opens this month after their summer vacation. We are planning to test new activities.

"We have performed tests on OLPC build 703 so that we can upgrade the builds at our pilot project sites soon after the schools reopen. Some findings:

- The XO battery charge lasts 3.5 hours, but decreases when the laptop is used for activities such as TurtleArt and E-toys.
- The journal slows down when entries rise above 150.
- We have selected two fonts that work perfectly with Urdu. Like Arabic, Urdu script is written from right to left. Characters tend to join in similar fashion to make word. Only Nafees, Web Naksh, and Tahoma have complete Urdu character sets which work with Sugar. Other fonts are not compatible with the character set of Urdu: http://wiki.laptop.org/go/Urdu_Screenshots We are going to randomly deploy both fonts, then test them with children at our pilot sites to gauge their comfort levels with each."

And in Other News…

The Times of London has published a provocative article entitled, "Why Microsoft and Intel Tried to Kill the XO $100 Laptop."
http://technology.timesonline.co.uk/tol/news/tech_and_web/article4472654.ece