Community News

A weekly update of One Laptop per Child, July 27, 2008

Learning

Rwanda: Preparations continue for the distribution of the first five thousand laptops. The core team completed translation of Sugar and Scratch into Kinyarwanda, the Rwandan national language. They received digitized textbooks for most grades and started the scanning process for the remaining books. They also were able to reduce the PDF file size more than 16 times, making it possible to load several books inside the XOs. The school selection process goes on. It is a challenge to match community saturation with available electricity. Carine Umutesi from RITA and Eugene Karangwa from the ministry of education are searching hard for such a cluster of schools. The scheduled date for laptop distribution is August 11th.

Haiti: The core team is wrapping up Camp XO 2008 at Ecole Nationale Republique du Chile. On July 31st, the last day of camp, the kids will display their work and demonstrate their skills to several officials and the media. Thursday, August 1st, will be parents' day.

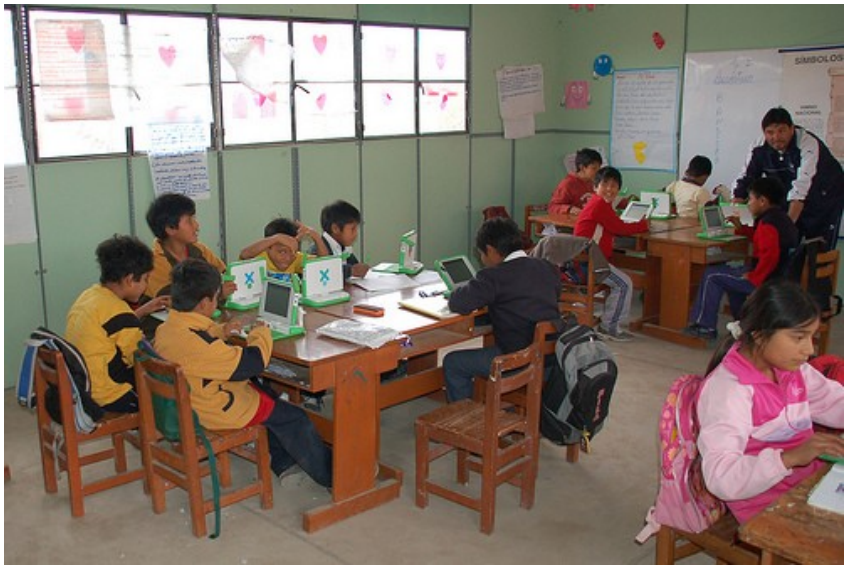
The team also is running full speed in preparation for the start of school in September. They have decided to go with solar panels. This week, they will visit two schools in the region as part of the XO school selection process.

Deployment

Mongolia: Nicholas visited the scenic Lake Khuvsgul region, where he met with the Mongolian team at the end of their latest rural swing - three stops in the north. The village/town has a population of 2000. The team includes six Mongolian teachers from Ulaanbaatar who are being trained to carry on the learning workshops as more laptops roll out at the beginning of the school year in September. Nicholas meets President Nambaryn Enkhbayar on Tuesday to press for full deployment, every child in the country, as in Uruguay.

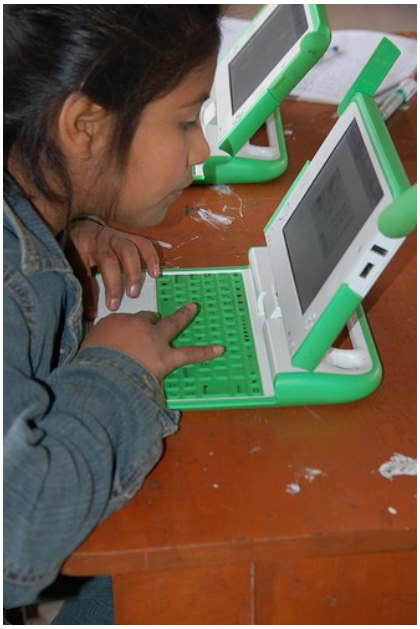
Perú: Kim Quirk visited the Chavalina School in Chincha, a poor community of 50,000 located about 200 km south of Lima. Chavalina and three other Chincha schools were selected by the ministry of education to receive XOs. Her report:

"Chincha was hit very hard by the earthquake last August, and they are still rebuilding the school and many homes in the town. The school we visited has 70 students, aged six to 12, in three classrooms with three teachers.



"The teachers are very excited about the laptops, the program, and the fact that their students were selected to participate. The kids are obviously excited about the laptops and showed us how they are using the machines - write, record, paint, puzzles, memory, and more.

"They received their XOs in late April, and already have had five or six problems with the 70 machines deployed, which has made it a little difficult for them. When a laptop breaks, the child goes without. It also takes a long time to charge the laptops as they only have one working electrical outlet, and one power strip. There is little direct sunlight in Chincha for four to five months out of the year, so solar is not a good option.



"They have no Internet connectivity, so this might be a good place for us to help get Telefonica involved.

"We discussed with them the formal process for submitting a repair or spare parts request, so they could do their own repairs. We also suggested that all the Chincha schools form one repair center."

More details:http://wiki.laptop.org/go/Chincha

More pictures from Chincha:
http://flickr.com/photos/kentquirk/sets/72157606353435234/

India: Satish Jha, OLPC India's CEO and president, has started working with Manusheel Gupta. Satish will be formally introduced locally be Nicholas on August 4 during OLPC India Day. (See poster below)

Satish already is discussing a customs duty exemption for the XO with government officials, and will pursue the subject in upcoming contacts with various agencies, including the Ministry of Finance.

Nepal: Rabi Karmacharya reports "the government of Nepal has allocated three million rupees in this year's budget for the One Laptop per Child project. It is not a huge amount, but it is a significant step by the government to indicate that they are seriously considering OLPC in Nepal. We are now insisting that the Department of Education seek more funding from donors to implement One Laptop per Child in two districts. We have told them that Open Learning Exchange Nepal will take care of piloting in three other districts."

Technology

Networking

1. Ricardo and Brian Cavagnolo have finished testing the unified code for programming the active antennas. The active antennas used to require different utilities and/or drivers, as well as different wireless firmware to be programmed. With the new driver support and recently-released 5.110.22.p17 wireless firmware, they can be programmed from an XO without the user having to manipulate firmware files and load/unload special drivers. Programming the operating channel is now also supported.

With the upcoming addition of the thin firmware driver in our builds, our radios can be used in client, access point, mesh, and stand-alone mesh repeater mode as well as take advantage of the latest developments in the linux mac80211 networking stack.

2. Ricardo, Michail and Prof. Luiz Magalhaez from UFF in Niteroy, Brazil, drafted an action plan for engaging Luiz's graduate students in applied XO networking research. Among the projects they defined was an ns-2 module for OLPC's mesh networking protocol, MAD (Mesh Adaptation Daemon) heuristics as well as an error-correcting UDP tunnel for internet access over the mesh.

3. Ankur Verma worked on integrating SMS capabilities on the XO. He interfaced a GSM cell phone as a participant to an XO chat session so that users participating in the chat can send and receive SMS messages. This being his last week of internship at OLPC offices, he gave a brief presentation about his work. He will continue with the last year of undergraduate engineering course at N.S.I.T., University of Delhi and plans to continue working for OLPC while at school.

4. Deepak Saxena further debugged the suspend/resume issues we are seeing during stress testing (#7458). While he has not determined the exact root cause, Deepak has determined what the overall issue is.

5.Richard Smith provided an updated firmware to help with testing. He also spent time debugging UnionFS in support of Erik Garrison's work for handling the NAND full issues that our Uruguay deployment is seeing.

6. Deepak also worked on another small kernel power management change (#7356), a boot from USB bug (#7620), reflected on kernel build repository and build setup to prepare us for having multiple release streams (2.6.22, 2.625) that we need to maintain, and attended OSCON, where he met some local folks from OSU who are working on printing support for Sugar.

7. Mitch Bradley is very close to feature complete for Windows XP support in OFW2, booting in non-secure mode from an SD card. His progress includes stabilizing the suspend/resume support and adding ACPI support for battery status reporting. The remaining work is mostly testing. Support for booting Windows from NAND FLASH is still in the design phase, as is Bitfrost security for booting Windows.

8. Michail and Mitch had a conference call with Microsoft engineers to discuss progress on OFW2 efforts, as well as paths towards a higher flash memory capacity XO. One alternative is to use a "managed" NAND chip, in which the Flash Translation Layer functionality is handled by a separate microprocessor on the NAND module. The industry seems to be moving in this direction for the next generation of NAND chips. We are evaluating such a device on an XO board.

Development:

9. On the school server track Martin Langhoff finished off the XO backup packages. A big thanks to Rahul Sundaram from RedHat/Fedora for his help with those packages.

10. Marco Gritti implemented new logic for the new window handling in Browse to fix a problem in the latest builds related to web sites not working correctly.

11. Sayamindu Dasgupta worked on the keyboard layout related bugs, and managed to track down the root cause for Amharic Compose keys not working.

12. Chris Ball added new tests to the Tinderbox, and worked on the wake-up events mask in the kernel.

13. Mohit Taneja reports that a substantial amount of work has been done on the FoodForce2 project this week. The major remaining work is related to the

qualitative analysis of some of the game quantities and inclusion of features in the “Wishlist.”

14. Faisal Anwar of Media Modifications continued his work on the Sugar Almanac. He has documented examples of the Sugar clipboard in consultation with the core Sugar team and the extended developer community. Please be sure to check http://wiki.laptop.org/go/Sugar_Almanac and contribute to this community resource based on your experiences as developers or end users.

Testing:

15. Joe Feinstein, Charlie Murphy, Sean Hooley and Frances Hopkins continued testing 8.1.1 and 8.2.0 builds. This included backup build 708 and Joyride 2200 ("work-in-progress"). Charlie worked on the test case template and started creating test cases for the new graphical Sugar control panel. Seth Woodworth and Francesca Slade assisted.

16. Joe continued testing the XO with a new motherboard as well as testing of the current Joyride 2200. Per agreement with the development team, every Wednesday the QA team will be provided with the current Joyride for ongoing testing towards 8.2.0 release.

Support:

17. A number of people are at work on a problem, reported from Uruguay, where a laptop that has been working well for a long time can fail to boot when its flash memory fills up. We believe we have a good fix that will be available in the next release, 8.2. We are continuing the discussion to come up with good solution for laptops that already have shipped.

18. Walter Bender's Sugar digest: http://lists.sugarlabs.org/archive/iaep/2008-July/001386.html

And in other news…

Invites
you to participate
on 4th August 2008 OLPC INDIA DAY
in a **National Video Conference**
2pm to 5pm at Reliance Worlds across the country
with
Nicholas Negroponte
Co Founder of the MIT Media Lab and Founder OLPC
and
David Cavallo
Chief Learning Architect OLPC

Mr. Nicholas Negroponte founder and chairman of the One Laptop Per Child non-profit association will be in India to share with us his vision for the world with the XO laptop and formally launch the National level initiative in India.

OLPC Mission:
To eliminate poverty and create world peace by providing education to the poorest and most remote children on the planet by making them more active in their own learning, through collaborative and creative activities, connected to the Internet, with their own laptop, as a human right and cost free to them.

OLPC India through the Digital Bridge Foundation joins in this mission to create educational opportunity for India's poorest children by creating an eco-system to provide each child with a rugged, low-cost, low power, connected laptop with content and software designed for collaborative, joyful, self-empowered learning.

OLPC INDIA DAY will bring together people from diverse disciplines across India and abroad who believe that "children do not lack capability, they lack opportunity" and who are also committed to supporting all efforts in the area of primary education in India

A virtual presentation will be made by David Cavallo co-head of the MIT Media Lab's Future of Learning Group which focuses on the design and implementation of new learning environments and on the design of new technologies that will change the way we think about "learning" and "school."

Sessions will provide information on the Operating System, technology, design features of the XO, new learning methodologies, and lessons from successful deployment of the OLPC programmes worldwide. The Video Conference will also bring together the Open Source community and interested groups in India that support this worldwide initiative and will be an opportunity to meet and exchange ideas with others committed to making a difference in primary education in India.

For schedules, details on registration and latest updates: www.olpc.co.in/olpcindiaday/

For more information: email: olpc-india@laptop.org
Location and other details will be sent by email to each registered participant.