

One Laptop per Child and Sugar: Collaborative, Joyful, and Self-empowered Learning



l i n u x u s e r s g r o u p o f d a v i s

LUGOD



Sameer Verma, Ph.D.
Professor
Information Systems



sugarlabs



Unless noted otherwise



SAN FRANCISCO
STATE UNIVERSITY

COLLEGE OF BUSINESS
INFORMATION SYSTEMS

1600 Holloway Avenue
San Francisco, CA 94132

Sameer Verma, Ph.D.
Professor

phone: 415/338-7016
e-mail: sverma@sfsu.edu

sverma@sfsu.edu



@sameerverma

Teach

Computer Networks and Databases, Media Creation, Content Management and Delivery.

Free and Open Source, Creative Commons, Licensing, Collaborative Methodologies.

IT Strategy, Compliance, IT Audit, Governance, Identity Management.

Research

Diffusion and Adoption of Innovative Technologies

Service

The Commons Initiative at SF State

<http://commons.sfsu.edu>



one laptop per child
san francisco

OLPC San Francisco



<http://olpcsf.org>

Afghanistan
Armenia
Haiti
Honduras
India
Jamaica
Madagascar
Pakistan
Philippines
Senegal
South Africa
Uganda
Tuva

San Francisco

I work directly with...



<http://olpcsf.org>

Afghanistan

Armenia

Haiti

Honduras

India

Jamaica

Madagascar

Pakistan

Philippines

Senegal

South Africa

Uganda

Tuva

San Francisco



Bhagmalpur,
India

August Town,
Jamaica





Bulun Bazhy, Tuva

OLPC



Mission



OLPC's mission is to empower the world's children through education

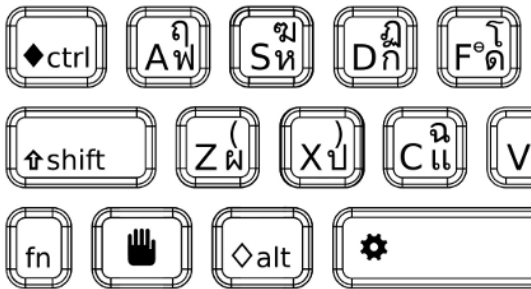
We aim to provide each child with a rugged, low-cost, low-power, connected laptop. To this end, we have designed hardware, content and software for collaborative, joyful, and self-empowered learning. With access to this type of tool, children are engaged in their own education, and learn, share, and create together. They become connected to each other, to the world and to a brighter future.

Worldwide

40+ countries, 30+ languages,
3 million laptops, 350+ applications



sugarlabs



Grounded in Education

Built from the ground up, for one purpose



Around the world...



School Galadima, Abuja City, Nigeria
See <http://wiki.laptop.org/go/Galadima>



Samkha village located in the suburbs of northern Thailand
See http://wiki.laptop.org/go/OLPC_Thailand/Ban_Samkha



Khairat school is India's pilot site.
See http://wiki.laptop.org/go/OLPC_India



Mongolia.

See <http://wiki.laptop.org/go/Ulaanbaatar>



Ethiopia

See <http://www.reactivated.net/weblog/archives/2008/10/olpc-ethiopia-updates/>



Afghanistan refugee camp, Pakistan

http://wiki.laptop.org/go/OLPC_Pakistan/Atlas_School



Colombia.

See http://wiki.laptop.org/go/OLPC_Colombia



Peru.

See http://wiki.laptop.org/go/OLPC_Peru



Rwanda.

See http://wiki.laptop.org/go/OLPC_Rwanda



Iraq.

See http://wiki.laptop.org/go/OLPC_Iraq



Haiti.

See <http://wiki.laptop.org/go/Haiti>



Solomon Islands.

See http://wiki.laptop.org/go/OLPC_Solomon_Islands



Nepal.

See http://wiki.laptop.org/go/OLPC_Nepal



Uruguay.
See <http://www.ceibal.edu.uy>



Australia.
See <http://laptop.org.au>



West Bank, Palestine. UN Relief and Works Agency
See <http://laptop.org/en/children/countries/mideast.shtml>

Deployments worldwide



~ 3 million See Google Maps

Also see: http://wiki.laptop.org/go/Property:Number_of_manufactured_laptops

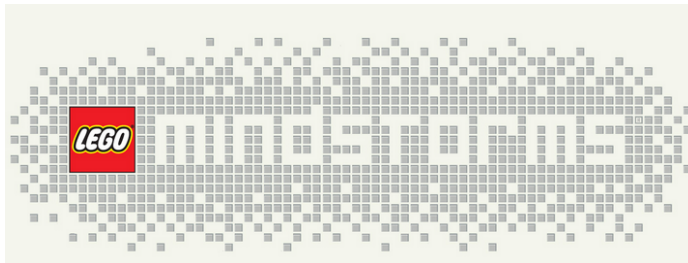
Seymour Papert



SCRATCH



<https://www.youtube.com/watch?v=FQCZa8MyWIg>



| 1 |  |  |  |
one laptop per child

sugarlabs

2005



**Massachusetts
Institute of
Technology**

Kofi Annan and Nicholas Negroponte, World Summit on the Information Society (WSIS) Tunis, Tunisia. Nov 16, 2005

Mission and Principles

The 5 Principles:

1. The kids keep the laptops.
2. Focus on early education.
3. No one gets left out.
4. Connection to the internet.
5. Free to grow and adapt.

Free and Open Source Software

1:15 / 1:38

www.youtube.com/watch?v=c-M77C2ejTw





Memorandum of Understanding



**MEMORANDUM OF UNDERSTANDING
BETWEEN
ONE LAPTOP PER CHILD ASSOCIATION, INC.
AND
UNIVERSITY OF THE WEST INDIES**

Research and Service

ARTICLE I

OLPC and UWI will use their best efforts to establish a long-term cooperation and collaboration in the field of 1:1 computing in certain primary schools in in Jamaica and the wider Caribbean. OLPC is interested in pursuing opportunities in the areas of Education, Technology and Outreach.

The Parties agree to work together to support the OLPC Jamaica volunteer community through regular meetings, institutional support and the facilitation of OLPC Projects in Jamaica. Further, the parties agree to support faculty research, community service, student projects and internships in the OLPC context. These may include, but are not limited to pedagogical approaches, content generation, software development, hardware testing, network analysis, community outreach and other related topics that go towards ensuring the sustainability of OLPC in Jamaica and the Caribbean.

Pilot Studies



1 |  |  |  | TM
one laptop per child

      
Sponsors Partners

August Town Primary School





Providence Basic School



Welcome to Mission
House Methodist Basic School
OLPC Launch

Mission House Basic School



Moneague College

Memorandum of Understanding



**MEMORANDUM OF UNDERSTANDING
BETWEEN
ONE LAPTOP PER CHILD ASSOCIATION, INC.
AND
SAN FRANCISCO STATE UNIVERSITY**

This Memorandum of Understanding (“MOU”) is entered into on December 20, 2011 by and between One Laptop per Child Association, Inc. (“OLPC”), a non-profit organization located in Miami, Florida and San Francisco State University (“SFSU”), a university located in San Francisco, California (hereinafter each individually a “Party” and collectively as the “Parties”).

WHEREAS, the Parties share a common interest in working together to promote the education around the world. In light of this common mission, the Parties agree to discuss the joint implementation of “One Laptop Per Child” projects in San Francisco Bay Area, California and around the world;

WHEREAS, OLPC anticipates that the expertise of SFSU, its staff and students will be essential to the successful implementation of such programs;

Rural and Remote

Bhagmalpur (भागमलपुर) village,
District Jaunpur, Uttar Pradesh, India

lat + long = <http://tinyurl.com/bhagmalpur>





On the Internet. First time ever. Circa 2008.



Rural and Remote.



Rural and Remote.



1300+ TED videos offline.



Caste no bar.

The State of Hardware



XO-1

x86
AMD Geode
433MHz

XO-1.5

x86
VIA
1GHz

XO-1.75

ARM
Marvell
Armada610 SoC
800MHz
Single core

XO-4

ARM
Marvell
PXA2128 SoC
1GHz
Multi-core
Touch

Hardware

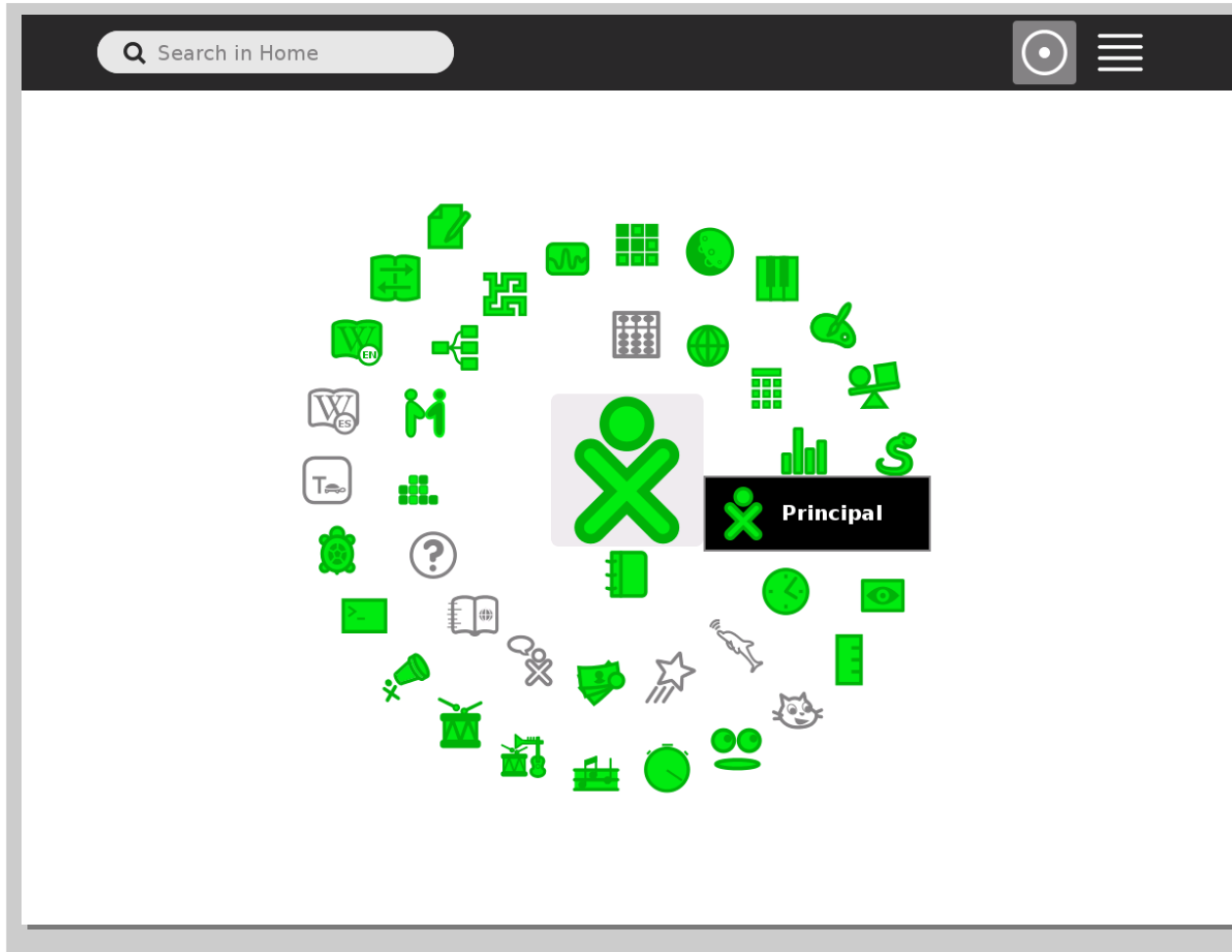
4th generation OLPC XO laptop
Multi-core ARM
Touchscreen

Wi-Fi(n), Camera, Microphone, Sensors,
Laptop/Tablet, USB, HDMI...

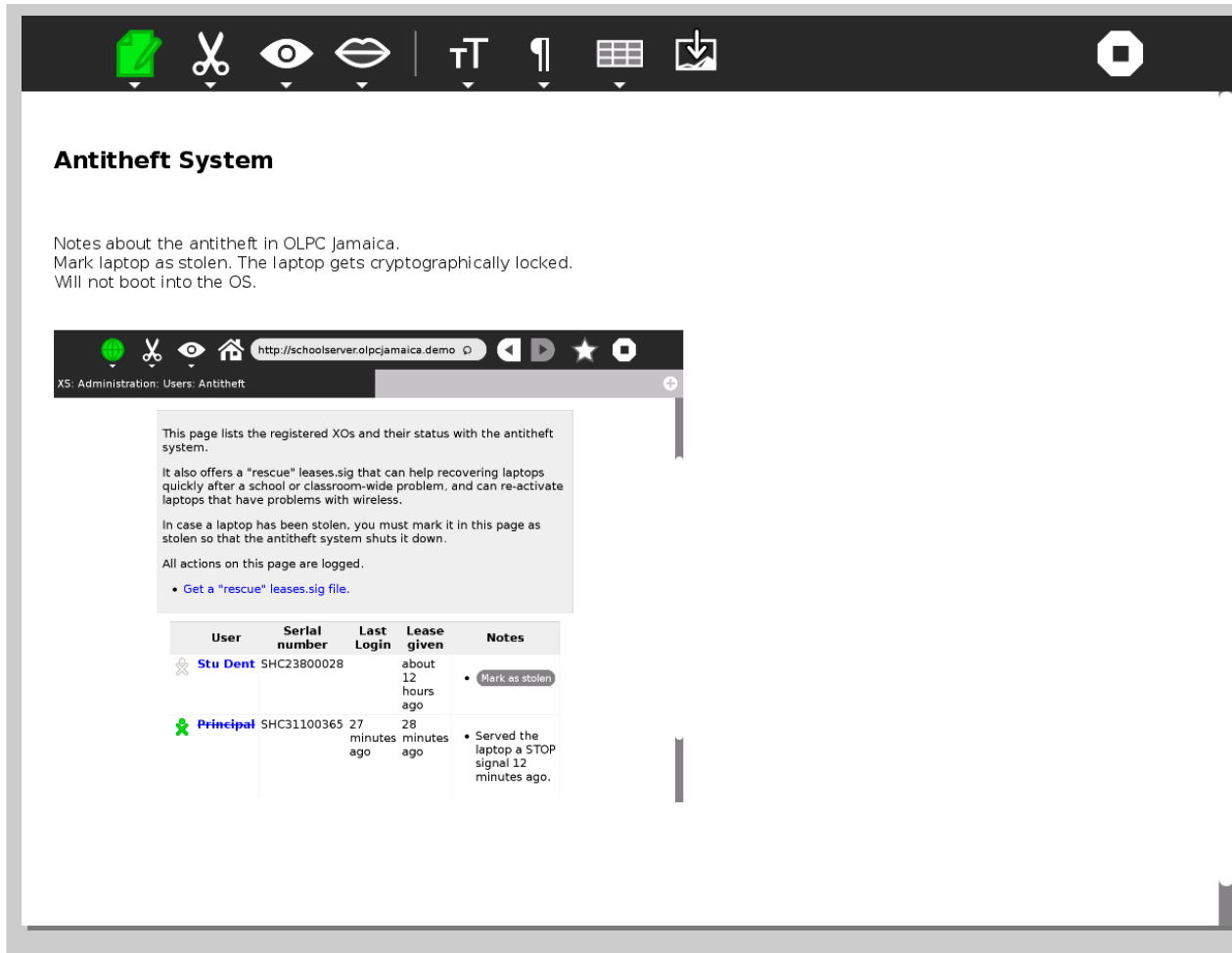
Robust, built for a kid!

Software, Content and Learning

Sugar Learning Environment



Word Processor



Antitheft System

Notes about the antitheft in OLPC Jamaica.
Mark laptop as stolen. The laptop gets cryptographically locked.
Will not boot into the OS.

http://schoolserver.olpcjamaica.demo

XS: Administration: Users: Antitheft



This page lists the registered XOs and their status with the antitheft system.

It also offers a "rescue" leases.sig that can help recovering laptops quickly after a school or classroom-wide problem, and can re-activate laptops that have problems with wireless.

In case a laptop has been stolen, you must mark it in this page as stolen so that the antitheft system shuts it down.

All actions on this page are logged.

- [Get a "rescue" leases.sig file.](#)

User	Serial number	Last Login	Lease given	Notes
 Stu Dent	SHC23800028		about 12 hours ago	<ul style="list-style-type: none">• Mark as stolen
 Principal	SHC31100365	27 minutes ago	28 minutes ago	<ul style="list-style-type: none">• Served the laptop a STOP signal 12 minutes ago.

Search for a Book

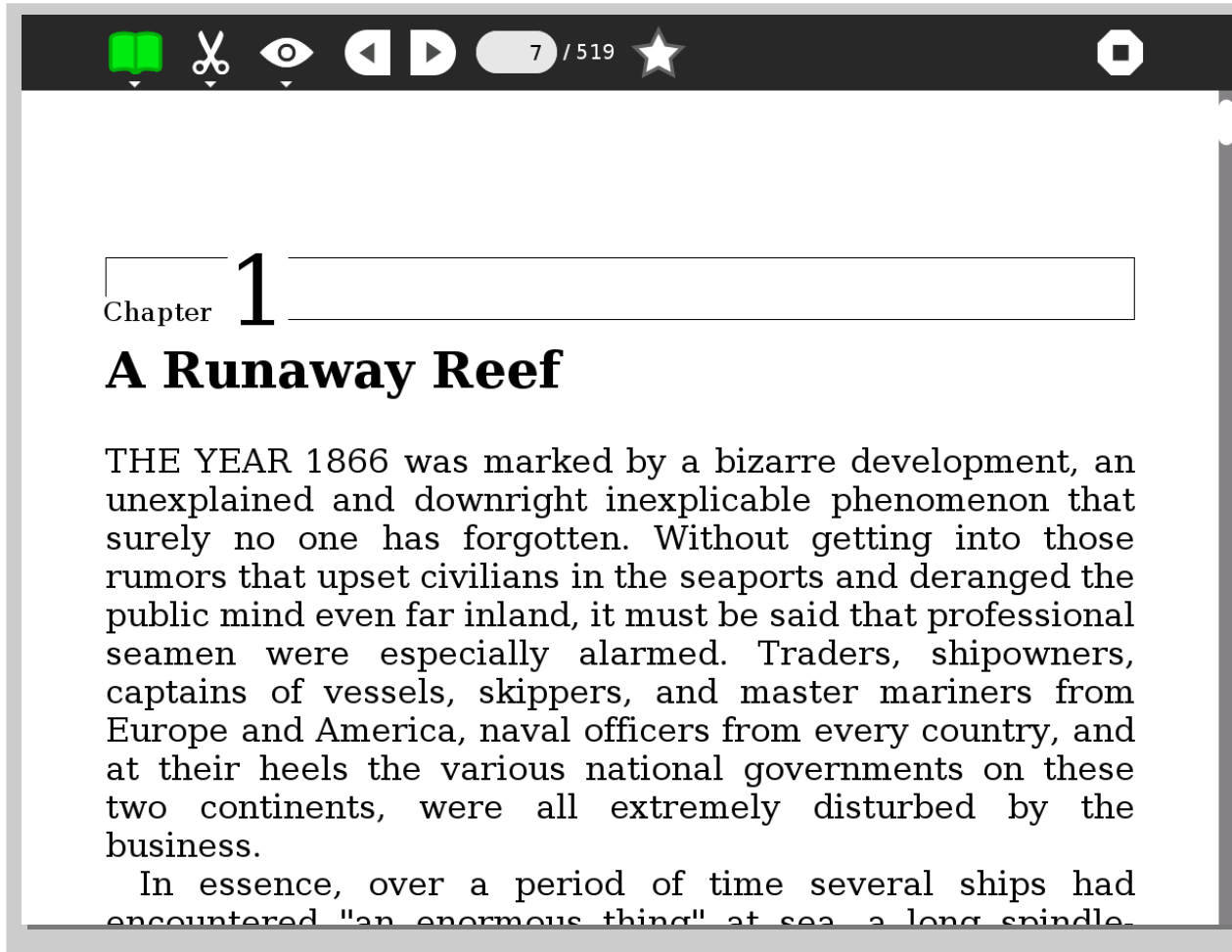
The screenshot shows the Internet Archive search interface. At the top, there is a search bar with the text 'Jamaica' and a search icon. To the right of the search bar are the Internet Archive logo, a menu icon, a wrench icon, and a home icon. Below the search bar, a status bar reads 'Performing lookup, please wait...'. The main content area is a table with three columns: 'Catalogs', 'Title', and 'Author'. The 'Catalogs' column contains the text 'index'. The 'Title' column contains several entries, including 'A Description of the Pimienta or Jamaica Pepper-Tree, and of the Tree That Bears the Cortex Winteranus: Communicated by Hans Sloane, M. D. and Reg. Soci. S.' and 'A descriptive account of the island of Jamaica: with remarks upon the cultivation of the sugarcane, throughout the different seasons of the year, and chiefly considered in a picturesque point of view; also observations and reflections upon what would probably be the consequences of an abolition of the slave-trade, and of the emancipation of the slaves'. The 'Author' column contains 'Sloane, H.', 'Sloane, Hans', and 'Beckford, William, d. 1799, Pre-1 Collection (Library of Congress) [catalog]'. Below the table, there is a detailed view of the first search result. It includes a small thumbnail image of the book cover on the left. To the right of the thumbnail, the following information is displayed: 'Title: A Description of the Pimienta or Jamaica Pepper-Tree, and of the Tree That Bears the Cortex Winteranus: Communicated by Hans Sloane, M. D. and Reg. Soci. S.', 'Author: Sloane, H.', 'Language: eng', and 'Publisher: Royal Society of London'. To the right of this information, there is a 'Format:' dropdown menu set to 'PDF' and a 'Get Book' button.

Catalogs	Title	Author
index	A Description of the Pimienta or Jamaica Pepper-Tree, and of the Tree That Bears the Cortex Winteranus: Communicated by Hans Sloane, M. D. and Reg. Soci. S.	Sloane, H.
	A Description of the Pimienta or Jamaica Pepper-Tree, and of the Tree That Bears the Cortex Winteranus: Communicated by Hans Sloane, M. D. and Reg. Soci. S. Volume 16	Sloane, Hans
	A descriptive account of the island of Jamaica: with remarks upon the cultivation of the sugarcane, throughout the different seasons of the year, and chiefly considered in a picturesque point of view; also observations and reflections upon what would probably be the consequences of an abolition of the slave-trade, and of the emancipation of the slaves	Beckford, William, d. 1799, Pre-1 Collection (Library of Congress) [catalog]
	A descriptive account of the island of Jamaica: with remarks upon the cultivation of the sugarcane, throughout the different seasons of the	

Title: A Description of the Pimienta or Jamaica Pepper-Tree, and of the Tree That Bears the Cortex Winteranus: Communicated by Hans Sloane, M. D. and Reg. Soci. S.
Author: Sloane, H.
Language: eng
Publisher: Royal Society of London

Format: PDF
[Get Book](#)

Read a Book



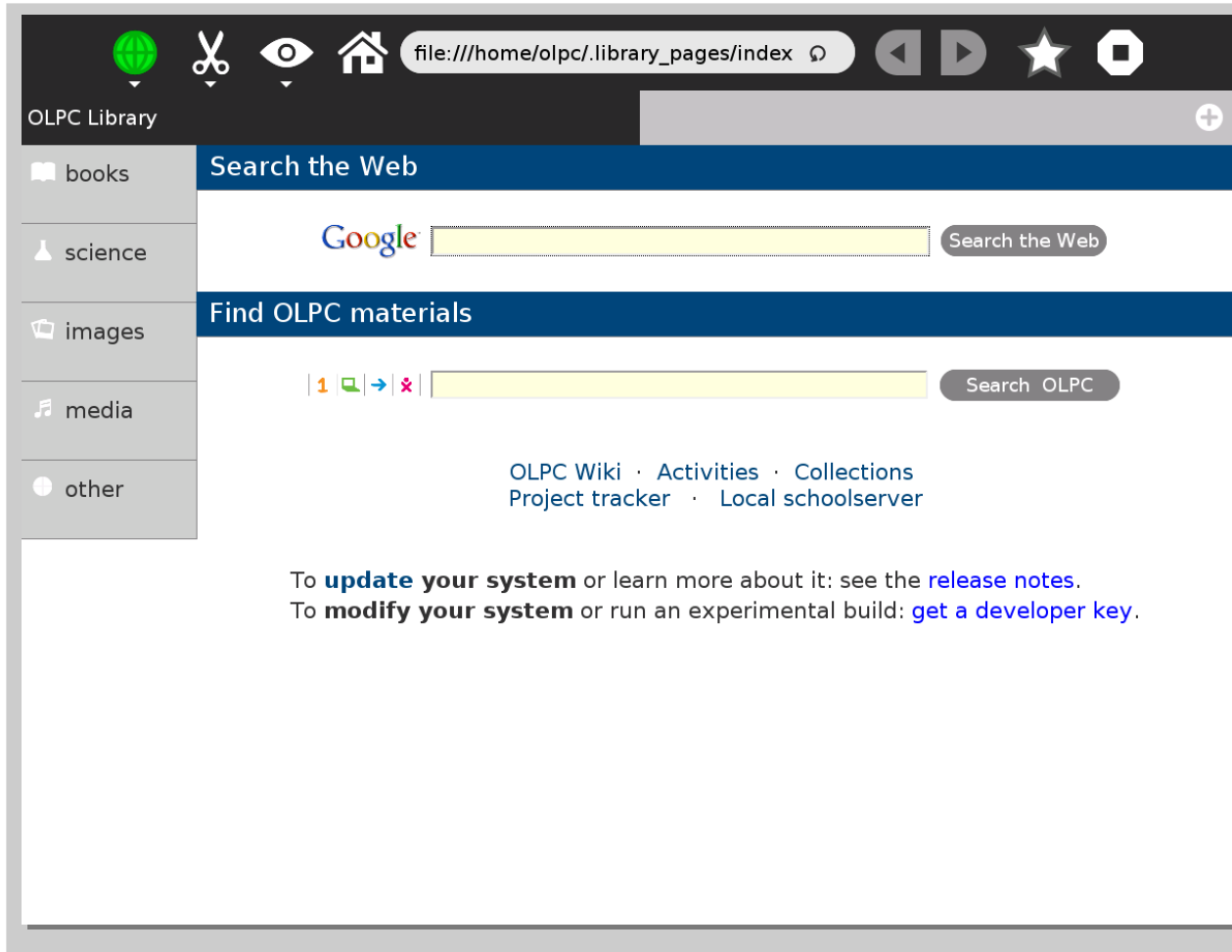
Text-to-speech can read highlighted parts of the book to the child

Paint a Picture

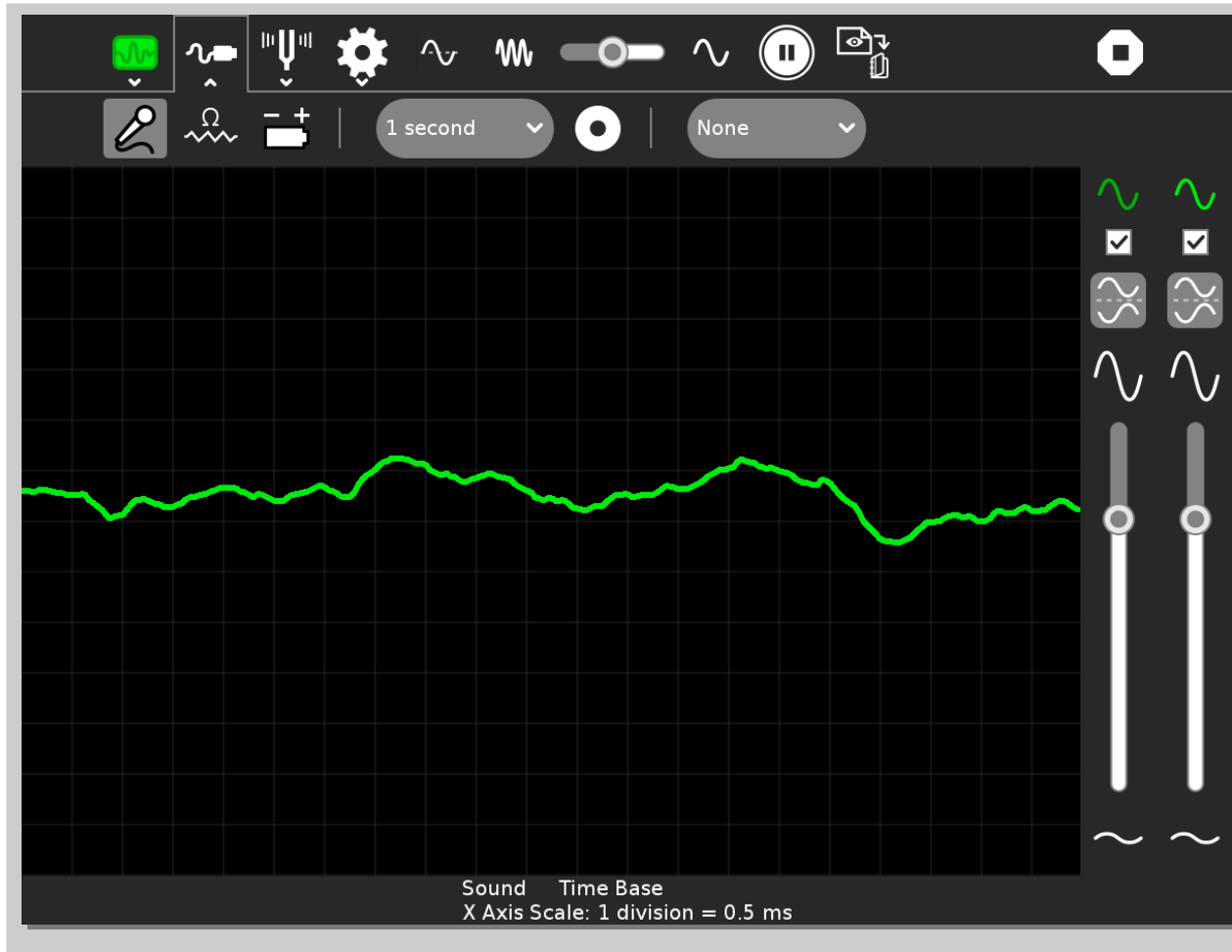


Done with a real paintbrush. No capacitive stylus required. Even a twig will do!

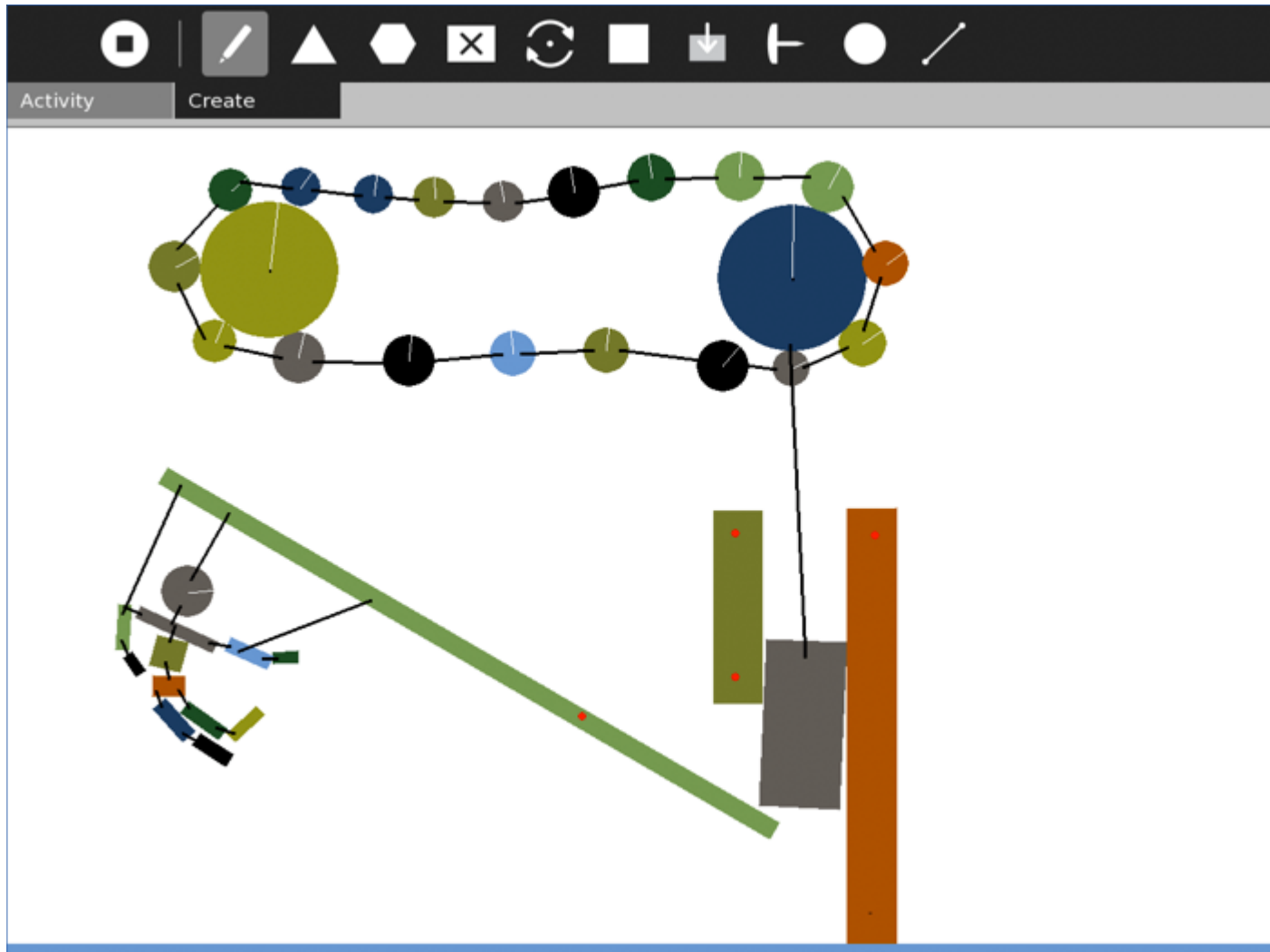
Browse the Web



Work with Sensors



Simulate with Physics



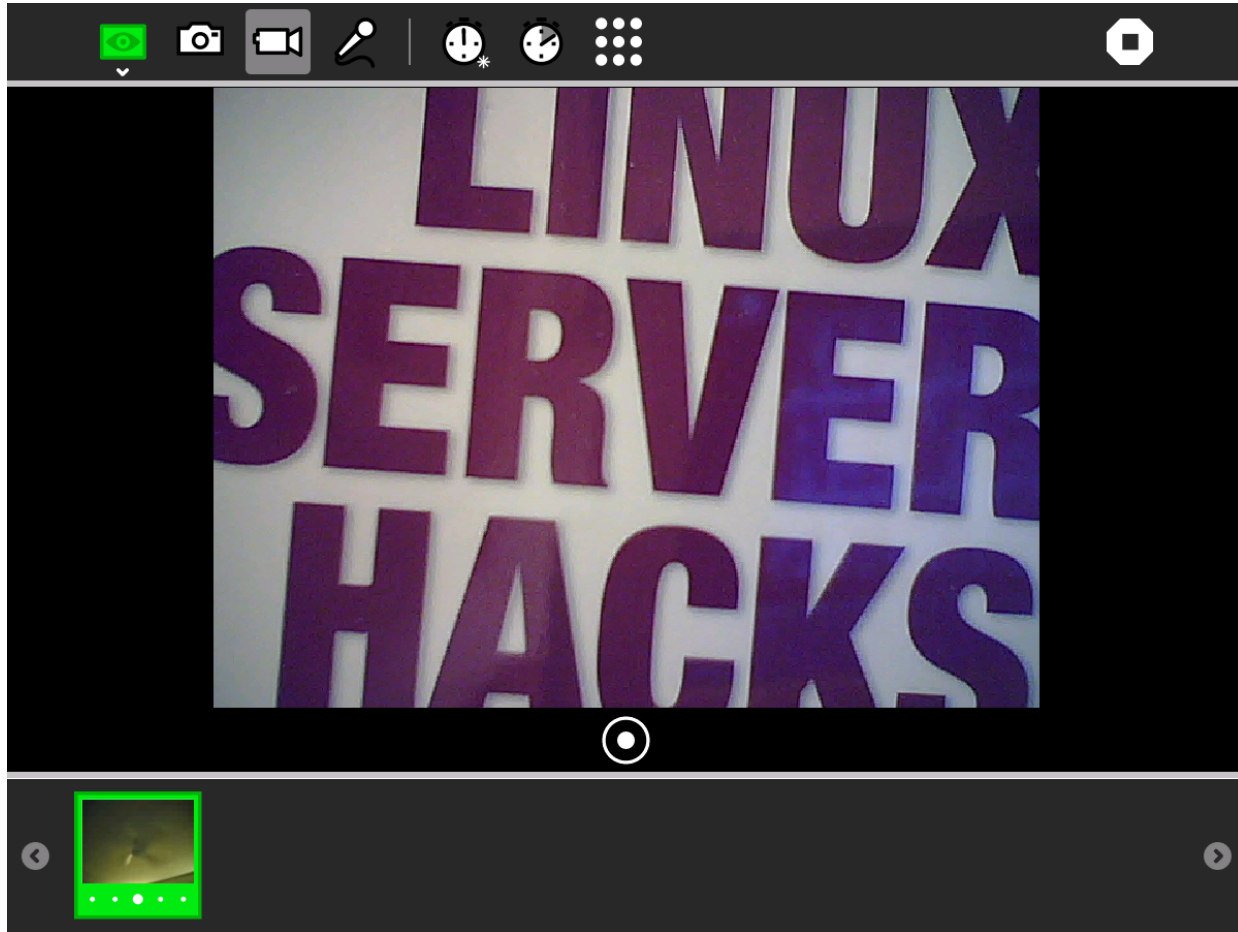
Telescope



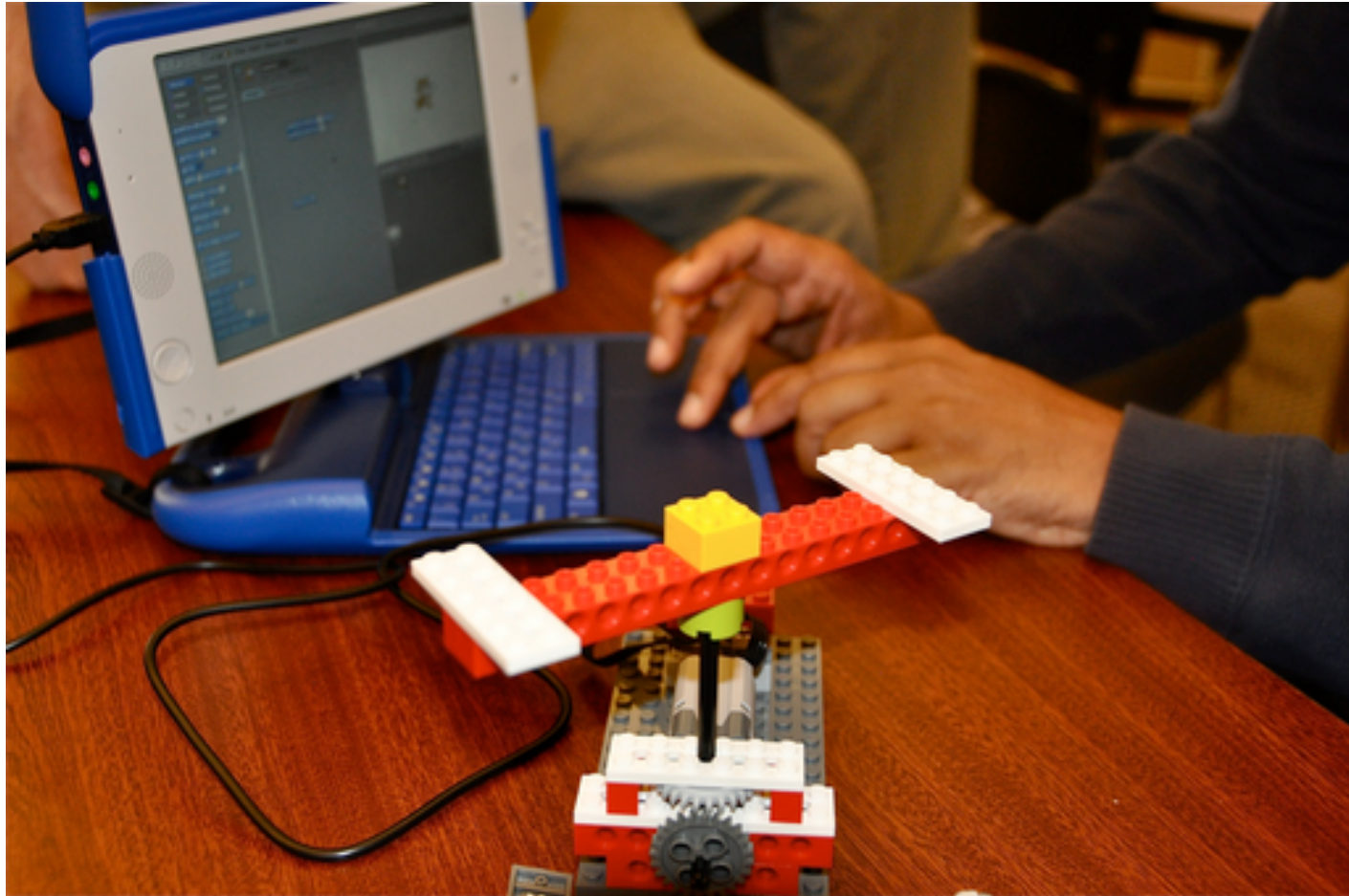
Magnifier



Audio, Photo, Video



Scratch and Lego Robots



Abacus

The image shows a digital abacus application interface. At the top, there is a dark grey toolbar with several icons: a green grid, a pair of scissors, a document with a plus sign, a gear, a minus sign, the text "Decimal", and a white square icon. Below the toolbar is a row of ten different abacus styles. The main area of the application displays the equation $10 + 5 = 15$ in the center. Below the equation is a large black-bordered abacus. The abacus has ten vertical rods. The first rod has ten white beads. The second rod has five red beads. The third rod has five green beads. The fourth rod has five magenta beads. The fifth rod has five yellow beads. The sixth rod has five green beads. The seventh rod has five black beads. The eighth rod has five brown beads. The ninth rod has one blue bead labeled "10" and four more blue beads. The tenth rod has one orange bead labeled "5" and four more orange beads. A red triangle points down to the top of the tenth rod. At the bottom of the abacus, the numbers "1" and "5" are displayed under the ninth and tenth rods respectively.

Music

The image shows a music application interface. At the top, there is a dark header bar with a green icon on the left, a search icon, and the text "DO TI C" followed by a close button. Below the header is a grid of instrument icons with their names: Acoustic Guitar, 'au tahana, Banjo, Electric Bass, Cello, Chimes, and Clarinet. A second row of icons includes a piano, a saxophone, a trumpet, a flute, a guitar, a ukulele, and a harmonica. Below the instruments is a keyboard layout with 15 keys. The keys are labeled with letters and numbers: Z, X, C, V, B, N, M, Q, W, E, R, T, Y, U, I. The 'G' key is highlighted in yellow. The keys are arranged in a grid with black and white keys. The 'G' key is the first white key in the second row from the top.

[Header: DO TI C]														
[Instrument Grid: Acoustic Guitar, 'au tahana, Banjo, Electric Bass, Cello, Chimes, Clarinet, Piano, Saxophone, Trumpet, Flute, Guitar, Ukulele, Harmonica]														
[Keyboard Layout]														
[Key Labels: Z, X, C, V, B, N, M, Q, W, E, R, T, Y, U, I]														

Geometry with TurtleArt

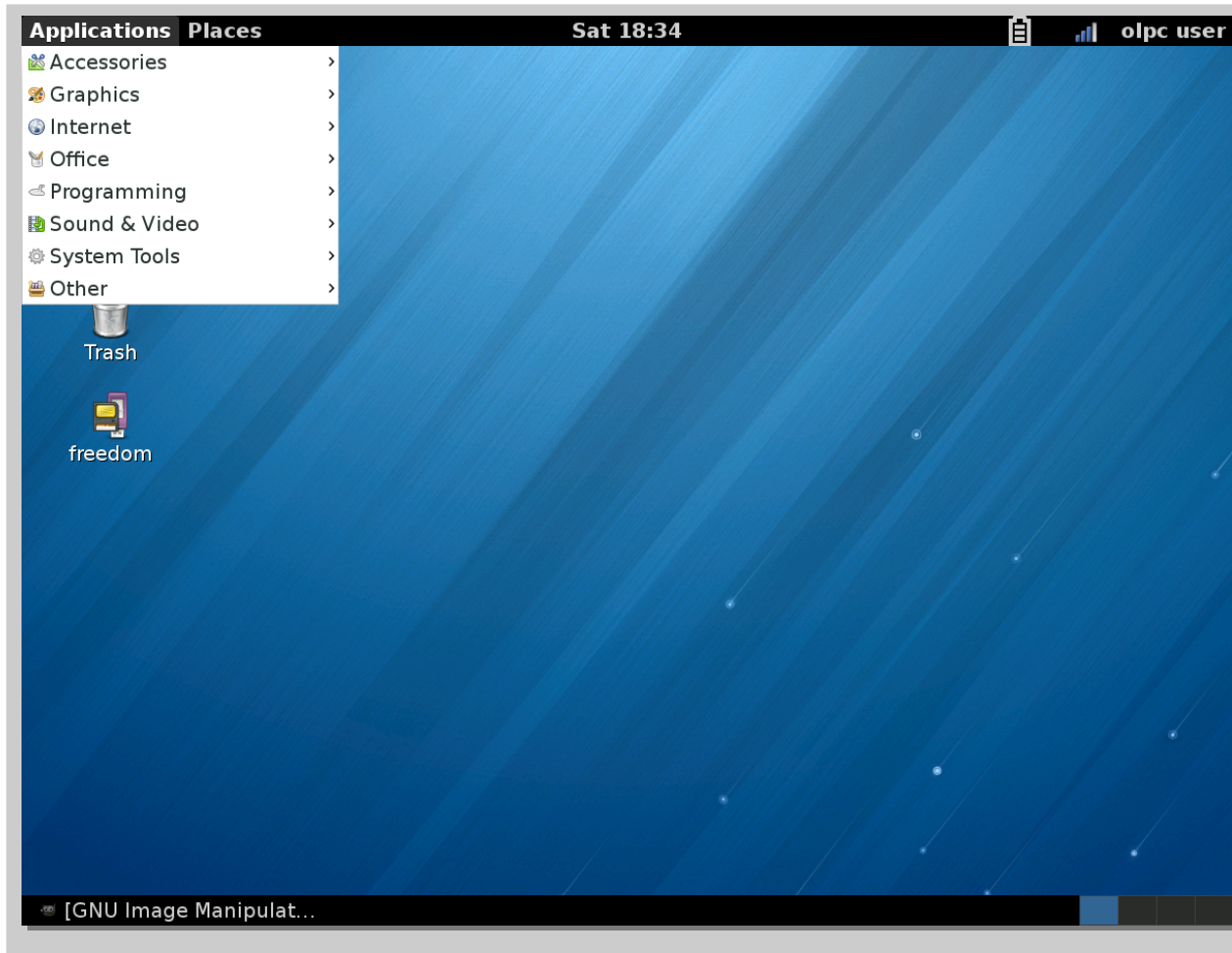
The image shows the TurtleArt software interface. At the top, there is a toolbar with various icons for navigation and editing. Below the toolbar is a palette of turtle-related blocks, including 'forward', 'left', 'right', 'angle arc radius', 'set xy', 'xcor', 'ycor', 'seth', 'back', and 'clean'. The main workspace is a light yellow canvas with a green turtle icon at the center, pointing downwards. A red line extends from the turtle's tail. A 'forward' block with the value '100' is connected to the turtle. Below the canvas, there is a 'start' block, a 'comment' block with the text 'The turtle goes forward 100 steps.', and an 'action' block with the text 'next'. At the bottom of the interface, there is a text input field containing the text 'string value'.

Journal

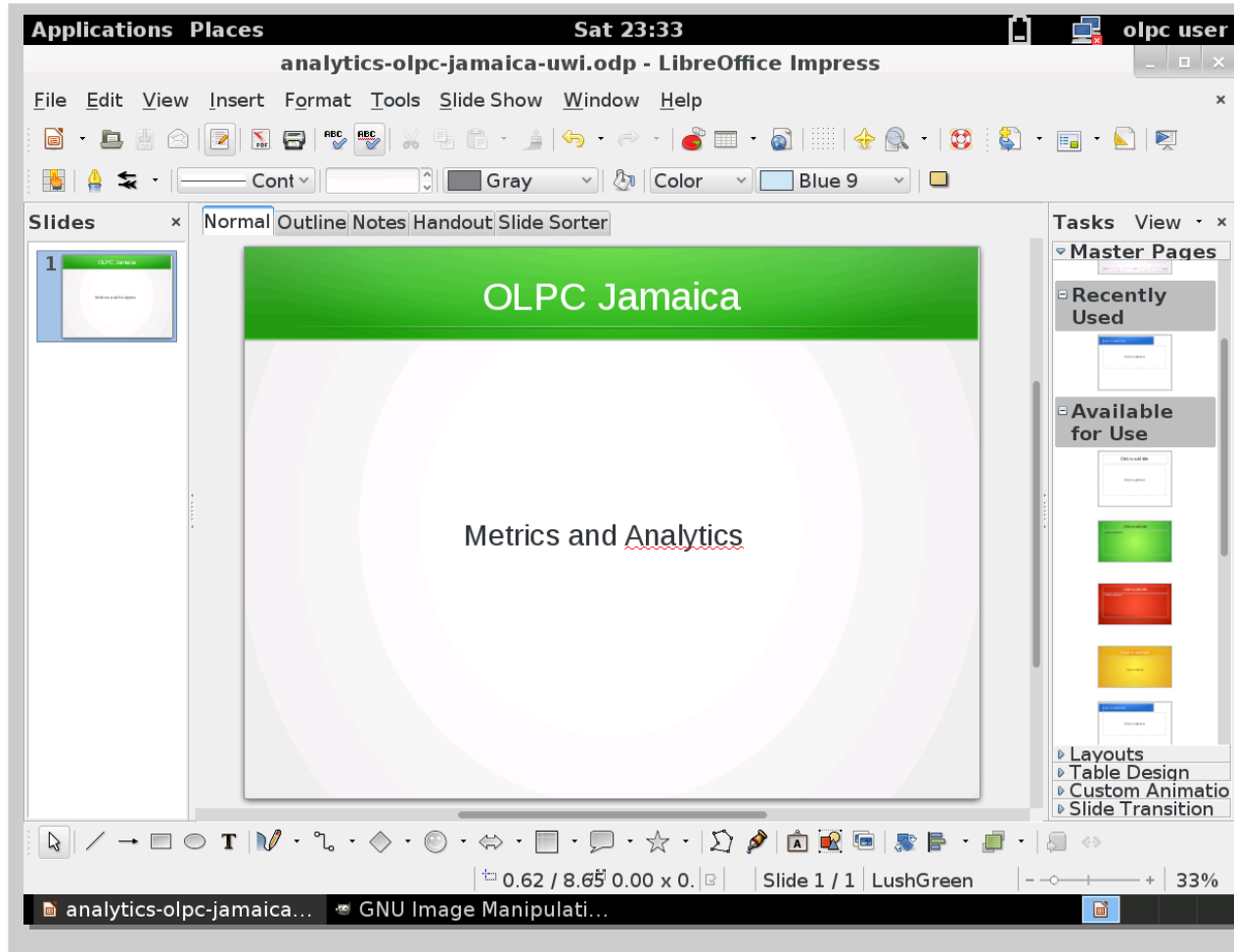
The screenshot shows a journal interface with a dark header bar. On the left, there is a search bar with a magnifying glass icon and a star icon. To the right of the search bar are two filter buttons: "Anything" and "Anytime", both with dropdown arrows. Further right is a refresh icon. Below the header is a list of activities, each with a star icon on the left, an activity icon, the activity name, and a timestamp on the right. A right-pointing arrow is next to each timestamp. At the bottom of the interface, there is a dark bar with two icons: a terminal icon and a mobile device icon.

Activity Name	Timestamp
Terminal Activity	Seconds ago
Turtle Blocks Activity	4 minutes ago
tamyblock.py	4 minutes ago
Memorize Activity	5 minutes ago
Screenshot of "Journal"	6 minutes ago
Log Activity	8 minutes ago
Sugar Labs Activities	15 minutes ago
Screenshot of "Sugar Labs Activities"	26 minutes ago
physics-7.xo	1 hour, 43 minutes ago
Screenshot of "Journal"	2 hours, 4 minutes ago

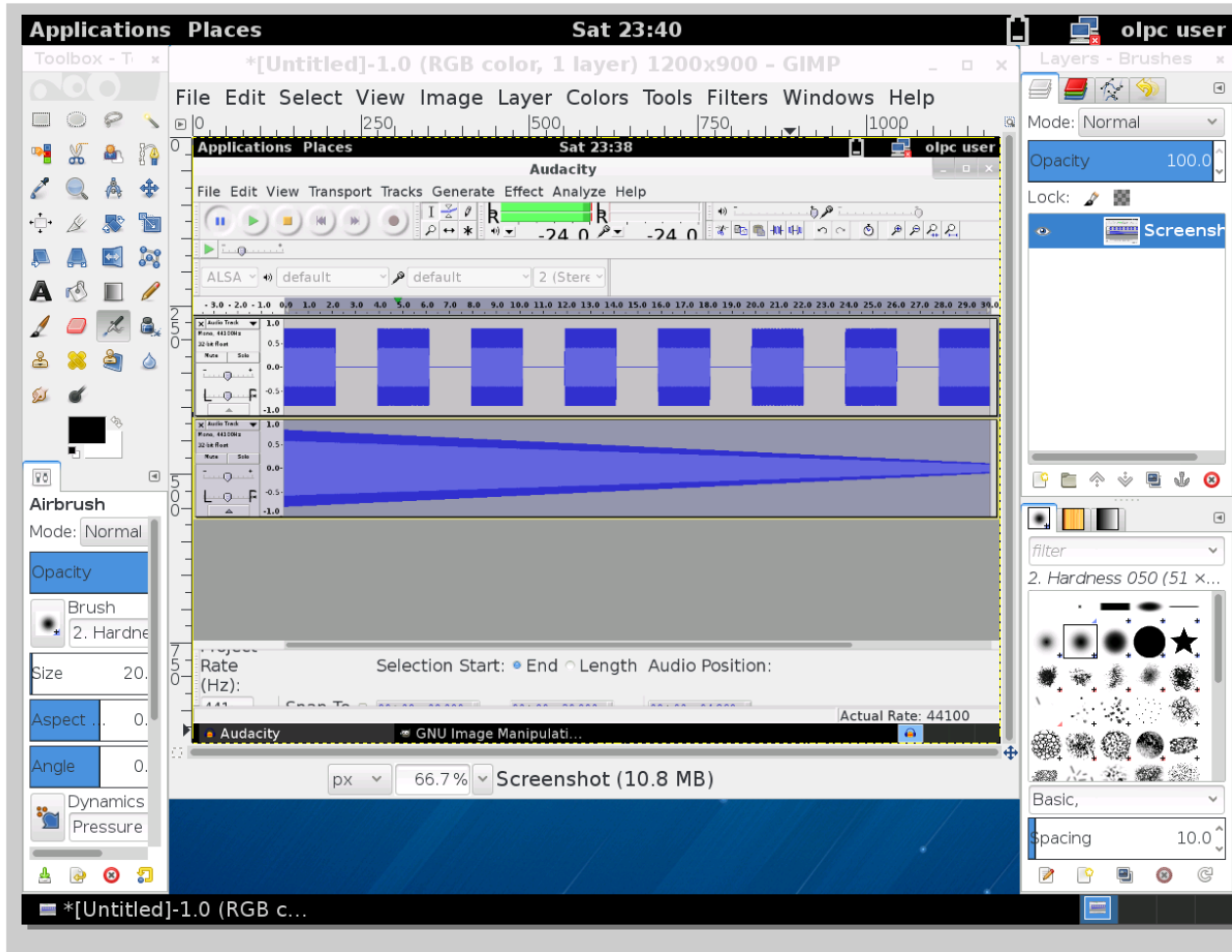
Desktop for Secondary Schools



LibreOffice Productivity Suite



GIMP graphics editor





Translating for the OLPC Project using Pootle



Sameer Verma, Ph.D.
sverma@sfsu.edu

Languages

Afrikaans, Amharic, Arabic, Armenian, Aymara, Bahasa Indonesia, Bahasa Melayu, Basque, Bengali, Bengali (India), Bislama, Bulgarian, Catalan, Chinese (China), Chinese (Hong Kong), Chinese (Taiwan), Croatian, Czech, Danish, Dari, Dutch, Dzongkha, English, English (South African), English (US), Estonian, Filipino, Finnish, French, French (Canada), Friulian, Fula, Galician, Georgian, German, Greek, Gujarati, Hausa, Hebrew, Hindi, Hungarian, Icelandic, Igbo, Italian, Japanese, Kannada, Khmer, Kinyarwanda, Korean, Kreyol, Macedonian, Malayalam, Maltese, Marathi, Marovo, Mongolian, Nauruan, Nepali, Norwegian, Norwegian Bokmål, Papiamentu, Papua New Guinea Pidgin (Tok Pisin), Pashto, Persian, Polish, Portuguese, Portuguese (Brazil), Punjabi, Quechua, Romanian, Russian, Serbian, Sindhi, Sinhala, Slovak, Slovenian, Solomon Islands Pidgin, Sotho, Spanish, Swahili, Swedish, Tamil, Telugu, Thai, Turkish, Ukrainian, Urdu, Uyghur, Vietnamese, Walloon, Wolof, Yoruba

Approx. 100+ languages

Translate:

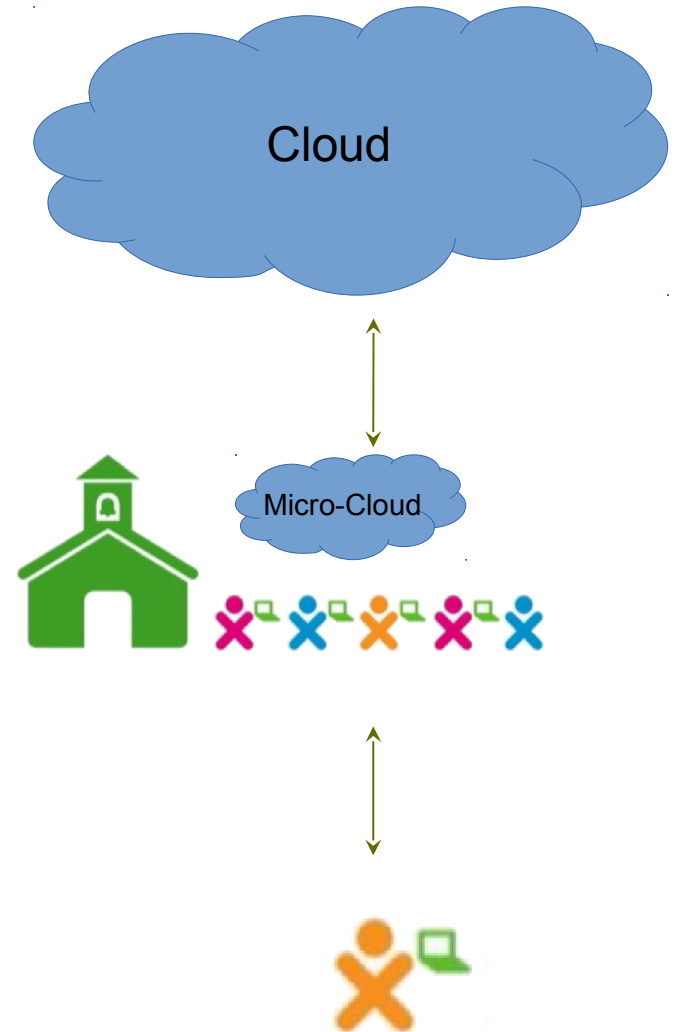
<http://translate.sugarlabs.org/>

Architecture beyond the XO

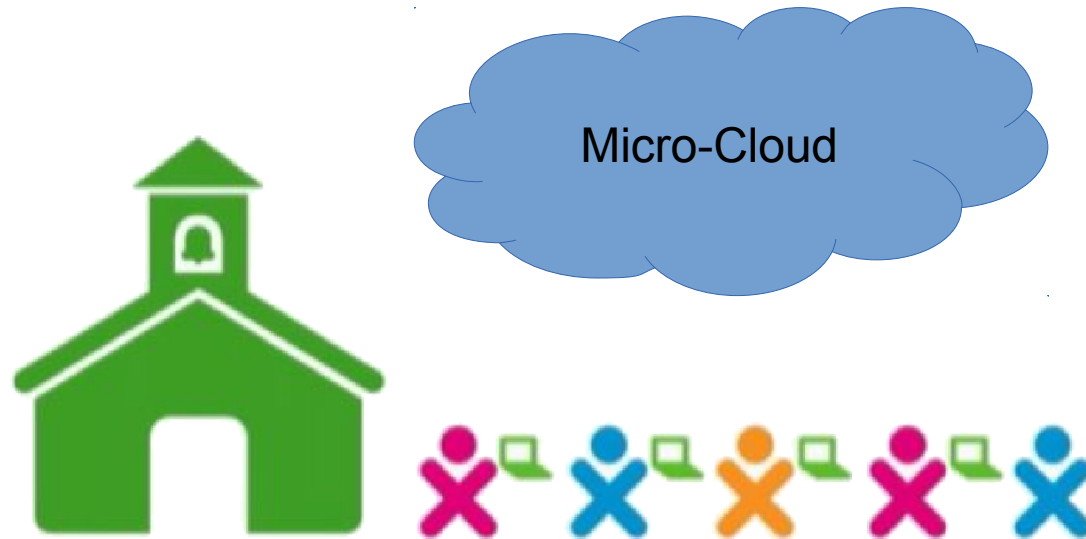
Central management for orchestration, monitoring and analytics is done in the cloud.

Micro-cloud appliance at school acts as a local mirror for content and management

Laptop with child has some offline content. It works in school and can go home.



Micro Cloud Appliance at the School



Micro-cloud appliance at school acts as a local mirror for content and management. Several services such as backup/restore, caching, filtering, traffic management, and data metrics run seamlessly at the school.

The appliance is a plug-and-play device. It can handle intermittent connectivity.

Appliance?



FitPC



Jetway JBC372F36W-S



XO 1.75 in a briefcase!

Learning Management System

The screenshot shows a web browser window with the URL <http://schoolserver.olpcjamaica.demo>. The page title is "OLPC Jamaica Demo School". The user is logged in as "Ivanna Reed" and the language is set to "English (en)".

Main Menu

- Links
- Library
- Internet-in-a-box

Links

[Subscribe to this forum](#)

School opening day
by Admin OLPC - Friday, 23 August 2013, 10:05 PM
Welcome. School begins on September 9, 2013. Please check with the Principal's office about details on September 2, 2013.

My courses

Algebra 1
Teacher: [Ivanna Reed](#)

Algebra 1

Search courses:

[Validate HTML](#) [Section 508 Check](#) [WCAG 1 \(2,3\) Check](#)

Based on Moodle (<http://moodle.org/>).

Runs at the micro-cloud at school and serves content even when offline.

Digital library

The screenshot shows a web browser window with the URL <http://schoolserver.olpcjamaica.demo>. The page is titled "Welcome to the Library" and features a green navigation bar with the word "Library" and a "Subscribe to OPDS" link. The navigation bar also includes sorting options: "Latest", "By Title", "By Author", "Most Downloaded", and "Tags", along with a search box labeled "Book Search...".

The main content area displays the book "The Art of Community" by Jono Bacon. The book cover is shown on the left. The text below the cover reads:

code community

Every software project, online site, or company has to manage the community of interested people surrounding it. The community is the source of new ideas, a reliable support network, and the best marketing tool. When money is tight, making the best use of the community is even more critical. In *The Art of Community* you'll experience the broad range of talents required to recruit members, motivate them, manage them, and make them happy to be part of your community. Bacon takes you through the different stages of community and covers the information you'll need, ranging from software tools to conflict resolution skills.

[Download](#)

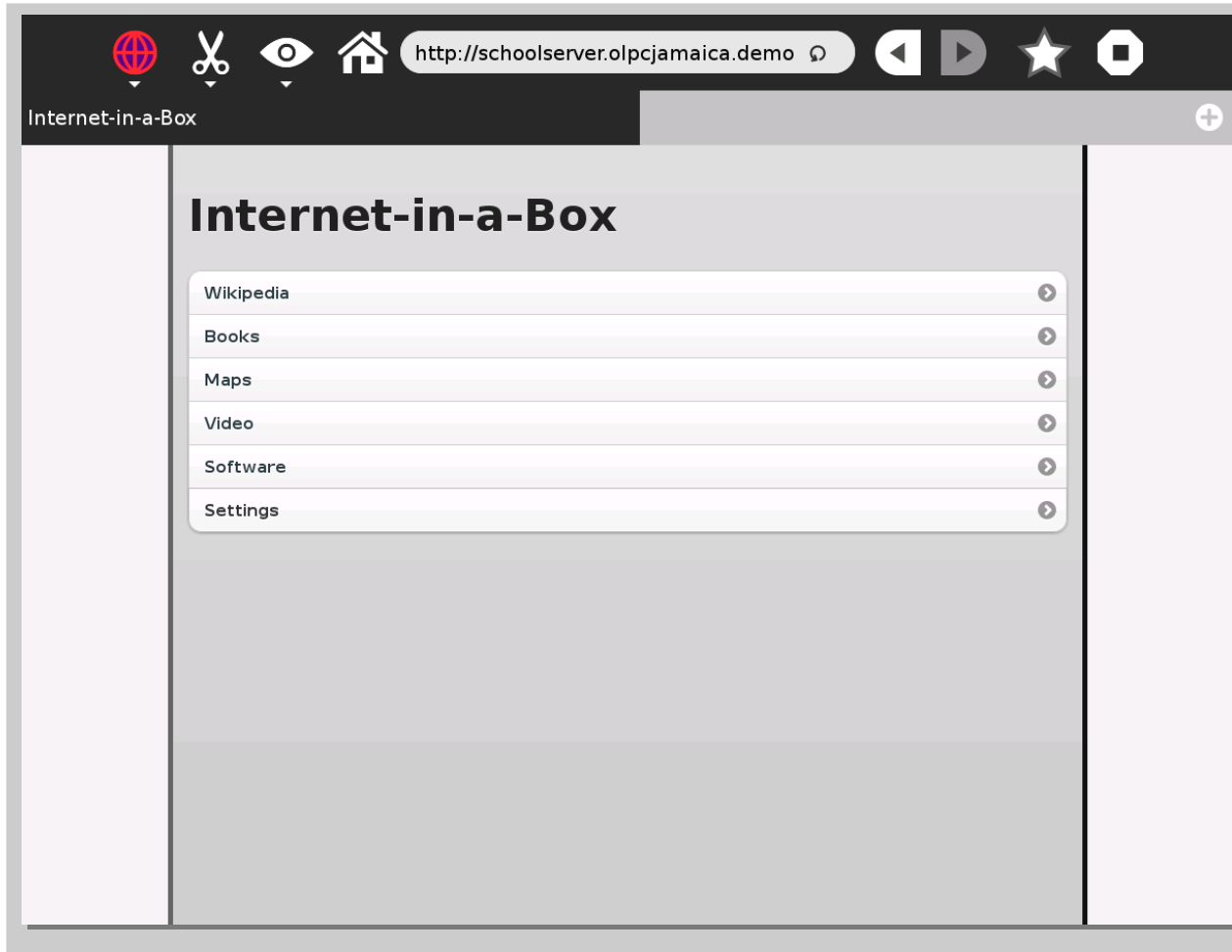
Below the book description, the title "Make Your Own Sugar" is partially visible.

On the right side of the page, there is a "STATISTICS" section with the following data:

- Published ebooks in this server: 10
- Number of ebooks in search result: 10
- Showing matches 6 to 10

Based on Pathagar (<https://github.com/PathagarBooks/pathagar>).
Runs at the micro-cloud at school and serves ebooks even when offline.

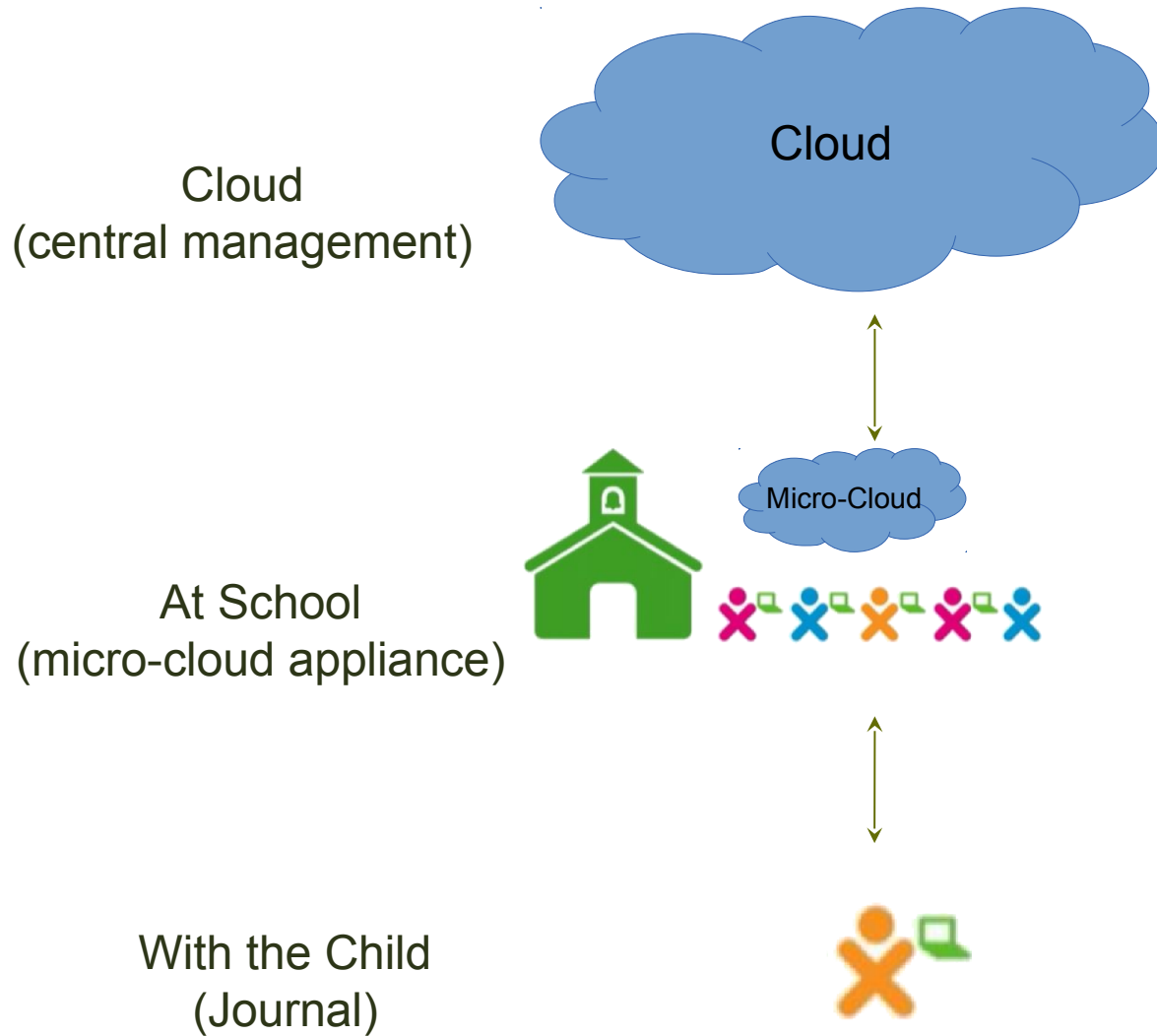
Internet-in-a-Box



Runs at the micro-cloud at school and serves Wikipedia, Maps, Khan Academy videos even when offline.

Monitoring, Orchestration and Analytics

Three levels of management



Theft Deterrence

This page lists the registered XOs and their status with the antitheft system.

It also offers a "rescue" leases.sig that can help recovering laptops quickly after a school or classroom-wide problem, and can re-activate laptops that have problems with wireless.

In case a laptop has been stolen, you must mark it in this page as stolen so that the antitheft system shuts it down.

All actions on this page are logged.

- [Get a "rescue" leases.sig file.](#)

	User	Serial number	Last Login	Lease given	Notes
	Stu Dent	SHC23800028		about 12 hours ago	<ul style="list-style-type: none">• Mark as stolen
	Principal	SHC31100365	27 minutes ago	28 minutes ago	<ul style="list-style-type: none">• Served the laptop a STOP signal 12 minutes ago.

Monitoring

Host State Trends

Last Updated: Tue Aug 20 11:40:09 CST 2013
 Nagios® Core™ 3.5.0 - www.nagios.org
 Logged in as *nagiosadmin*

- [View Availability Report For This Host](#)
- [View Status Detail For This Host](#)
- [View Alert History For This Host](#)
- [View Notifications For This Host](#)

Host

'schoolserver.sanjudastadeo



07-01-2013 00:00:00 to 08-01-2013 00:00:00
 Duration: 31d 0h 0m 0s

First assumed host state: Backtracked archives:

Unspecified ▾

4

Report period:

Last Month ▾

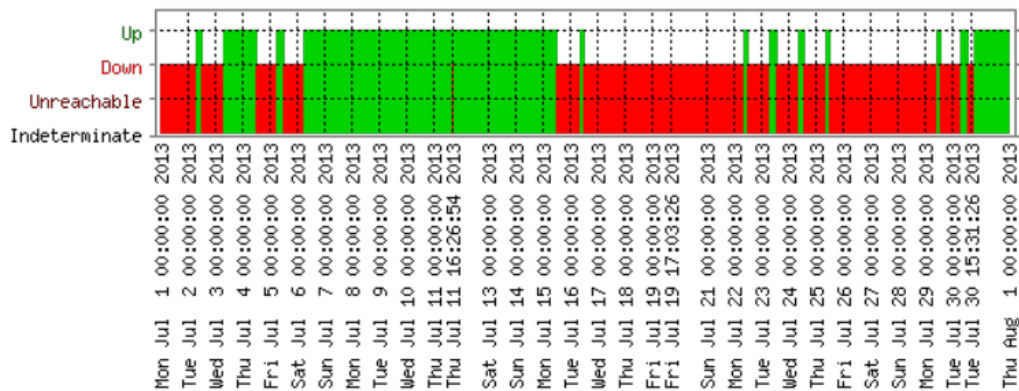
Zoom factor:

4 ▾

Update

State History For Host 'schoolserver.sanjudastadeo.managua'

Mon Jul 1 00:00:00 2013 to Thu Aug 1 00:00:00 2013



Up : (42.405%) 13d 3h 29m 30s
 Down : (57.595%) 17d 20h 30m 30s
 Unreachable : (0.000%) 0d 0h 0m 0s
 Indeterminate: (0.000%) 0d 0h 0m 0s

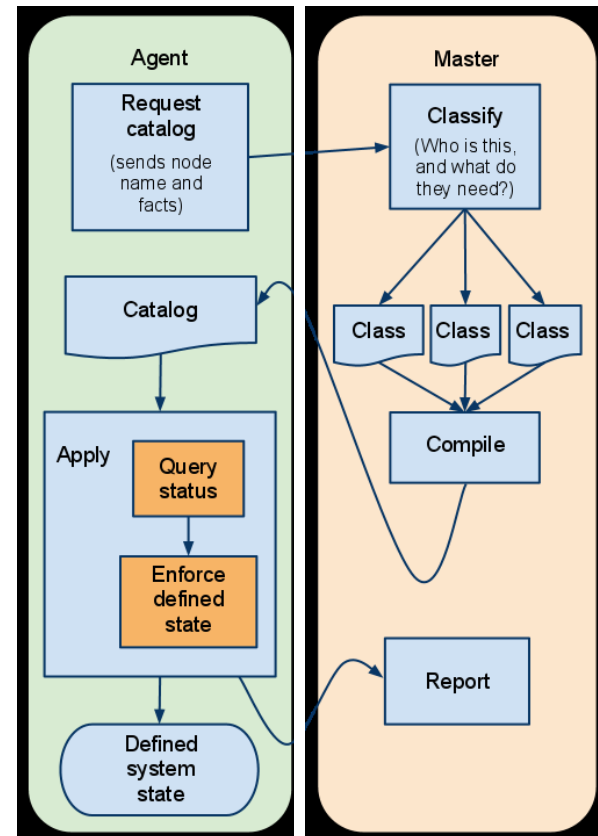
School micro-cloud orchestration

Each school appliance is provisioned and managed by a central service running on Puppet

Puppetlabs, Inc.

<http://puppetlabs.com/>

- Server automation tool.
- Express system configuration.
- Client and server distributed model.

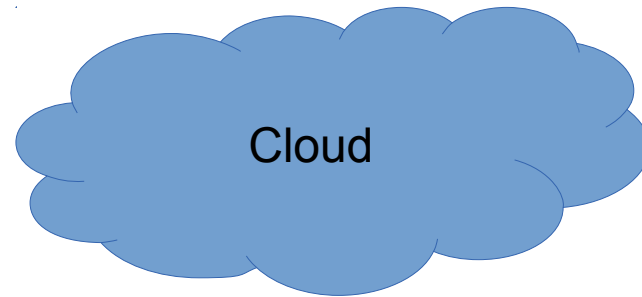


At School

Cloud

Cloud-based Usage Analytics Dashboard

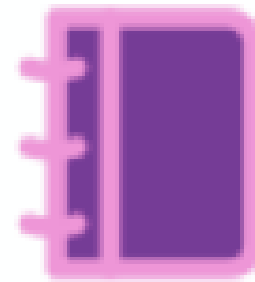
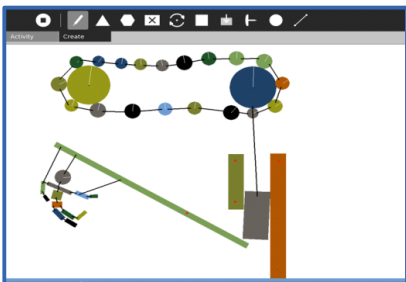
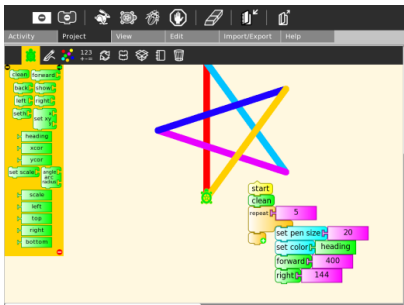
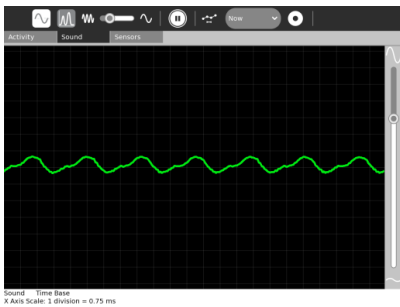
(being developed at University of the West Indies, Jamaica)



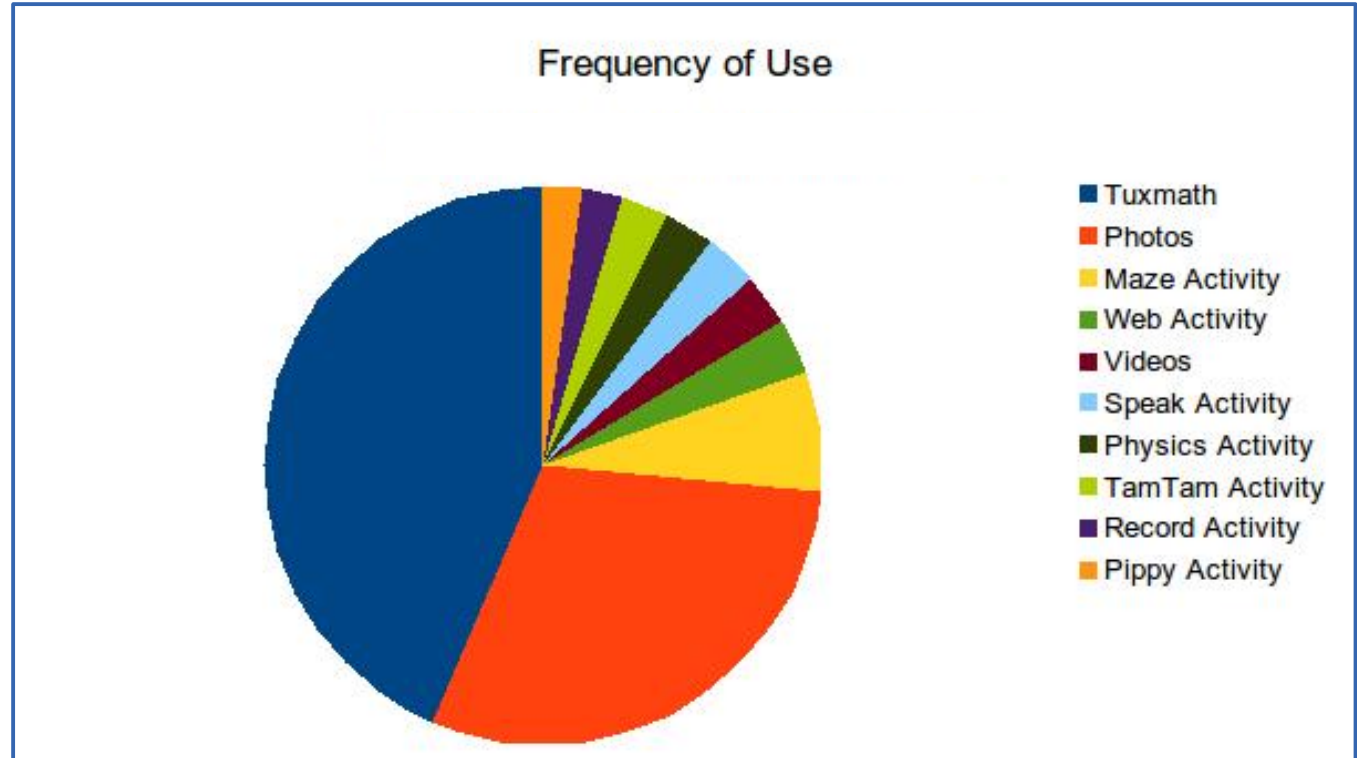
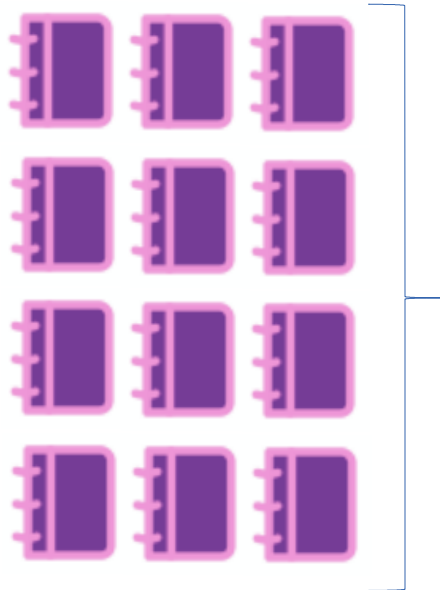
What happens at each school?



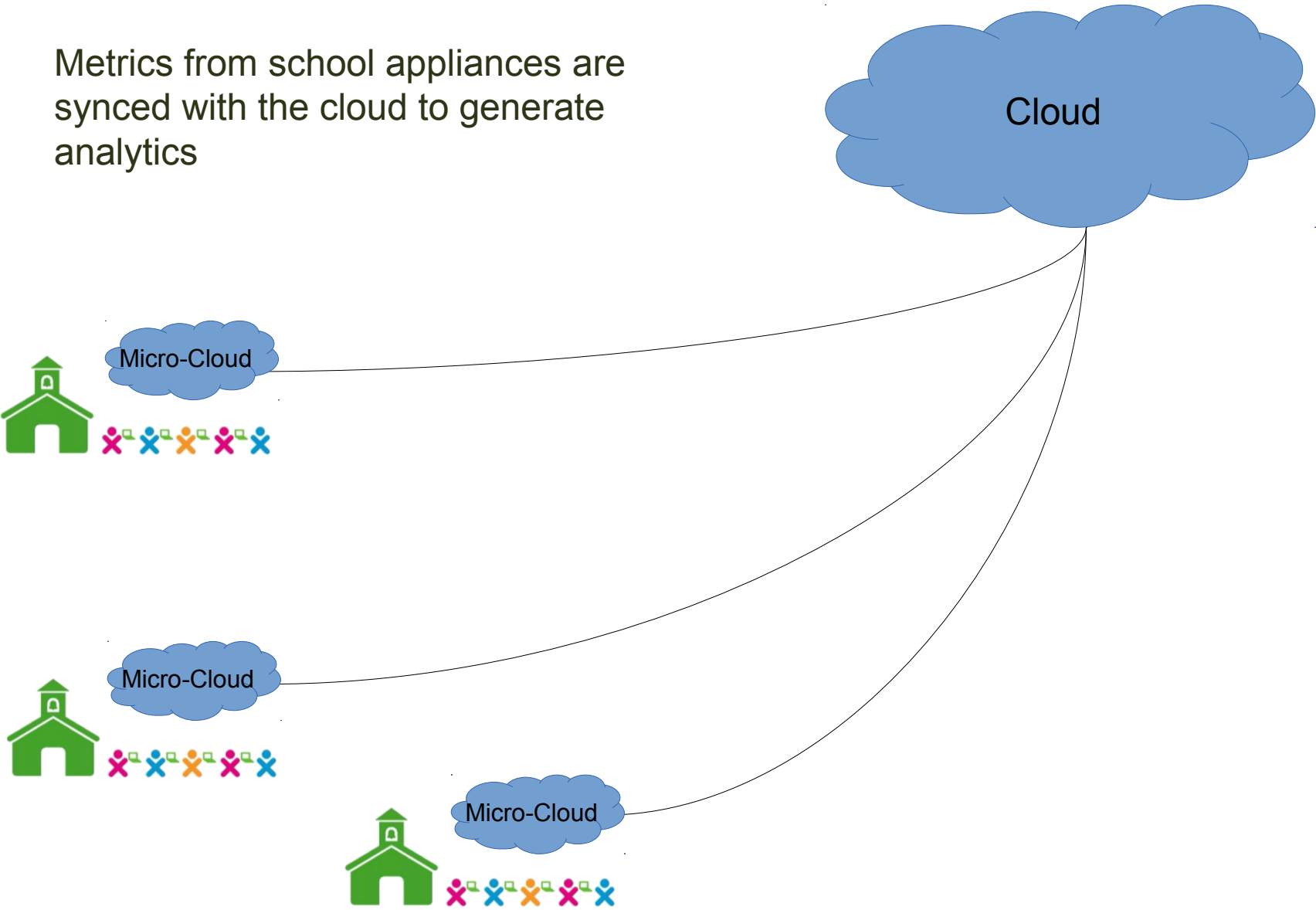
Each child's work is automatically stored in a Journal on her laptop



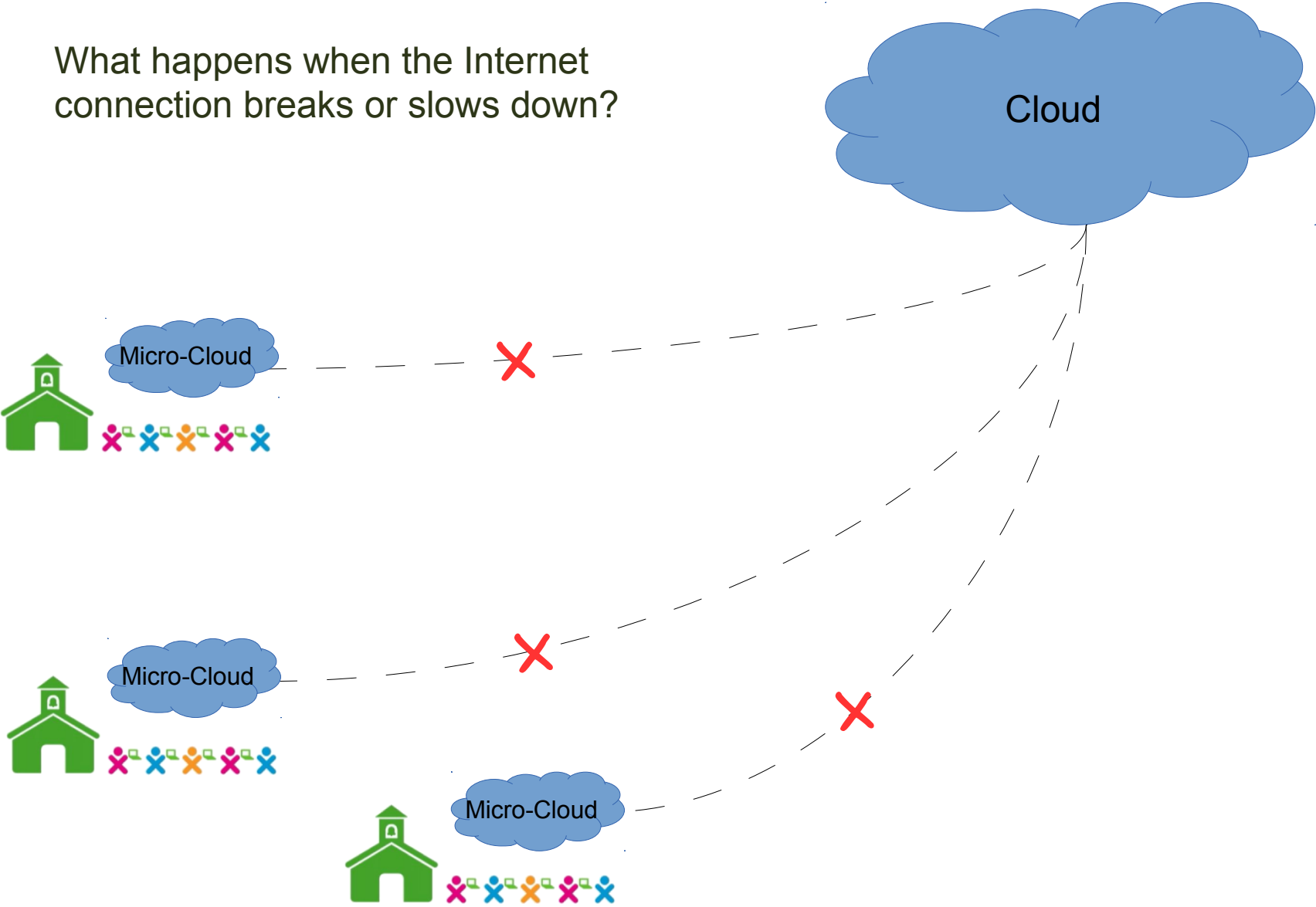
This work is distilled into metrics at the school micro-cloud appliance



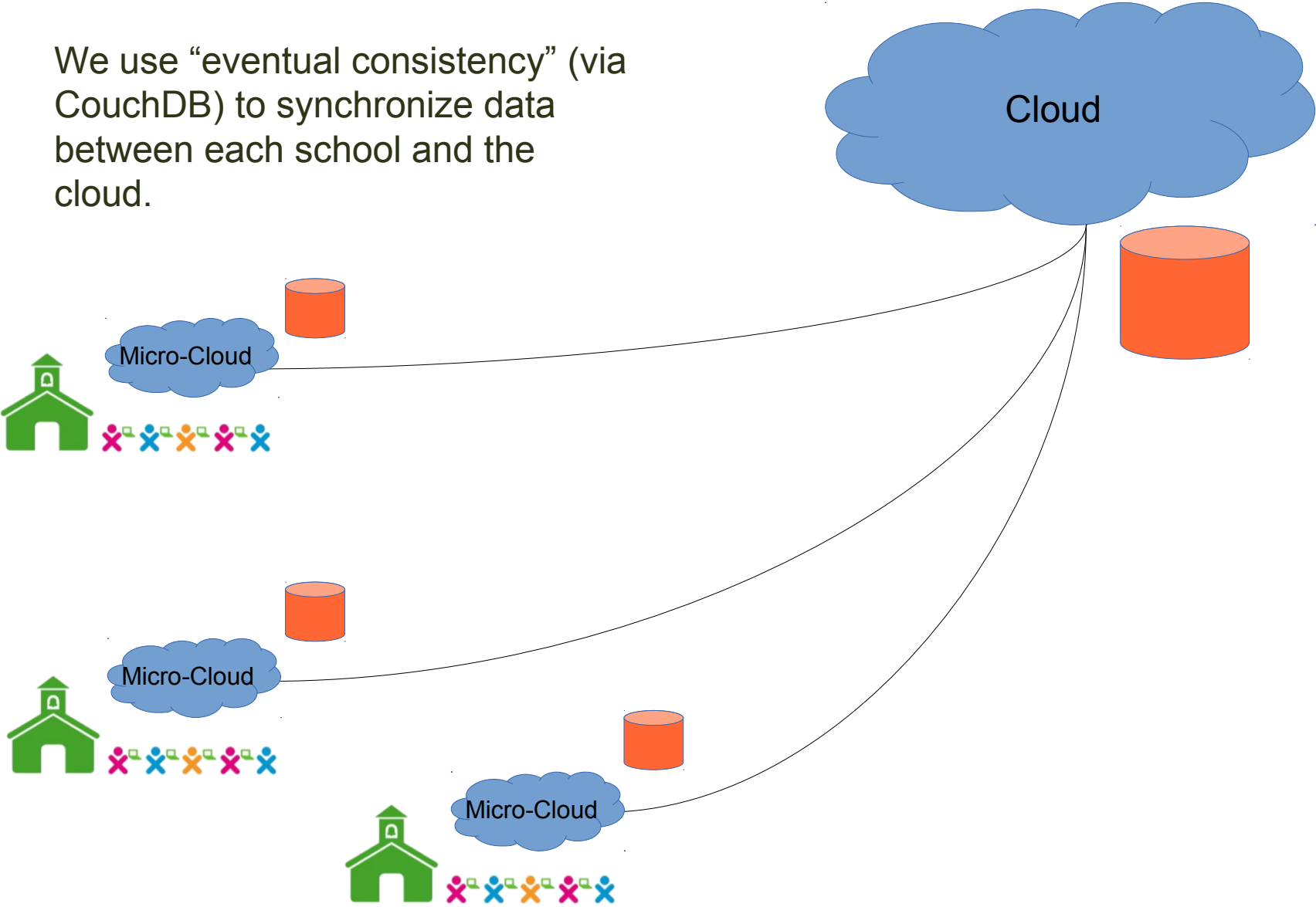
Metrics from school appliances are synced with the cloud to generate analytics



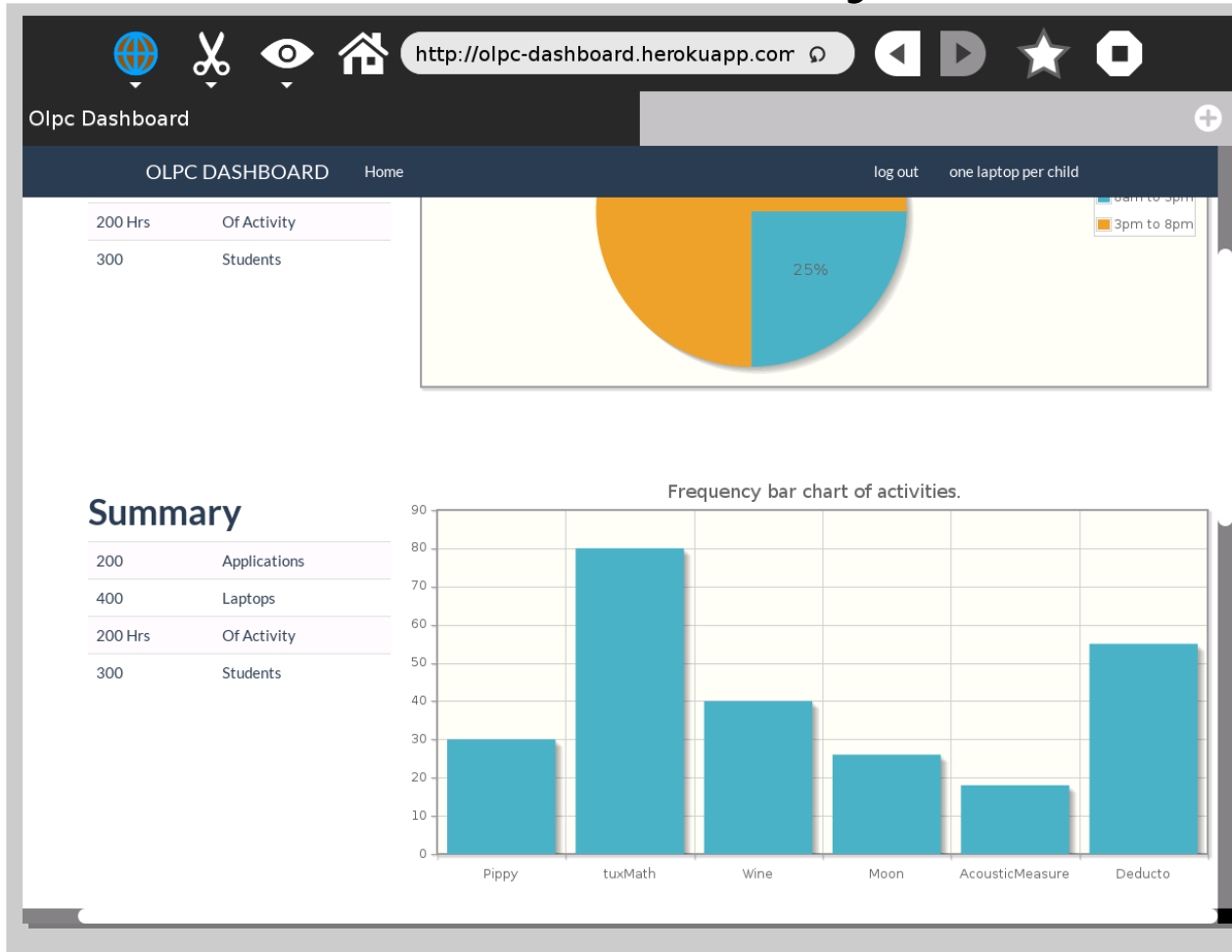
What happens when the Internet connection breaks or slows down?



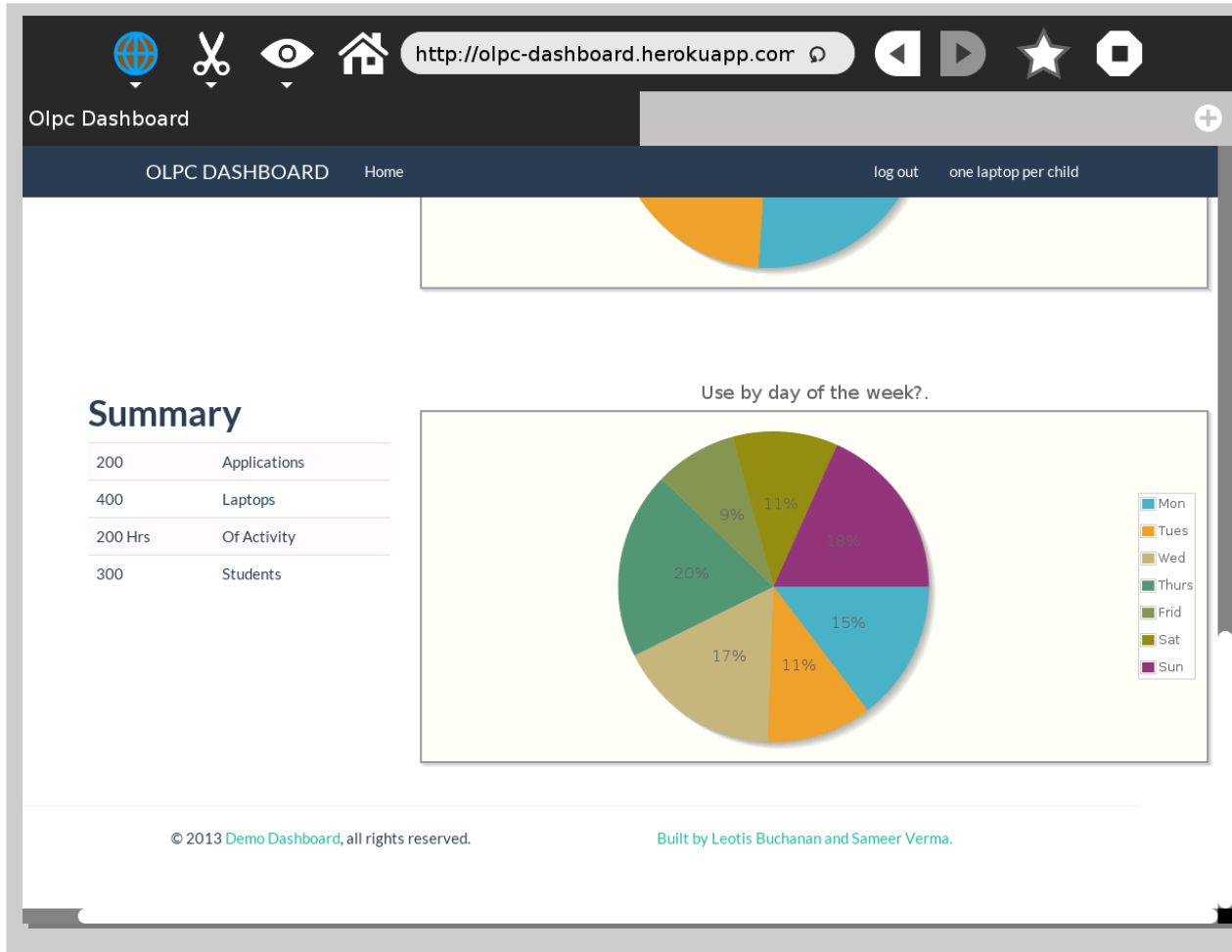
We use “eventual consistency” (via CouchDB) to synchronize data between each school and the cloud.



Analytics – Usage Frequency and Time of Day



Analytics – Usage by Day of the Week



Beyond OLPC

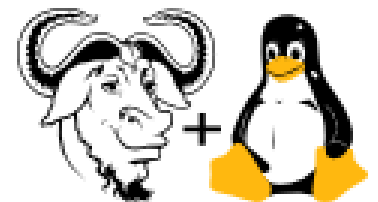
sugarlabs

<http://sugarlabs.org/>

Sugar on Linux Distributions

- Sweets for Ubuntu:
 - http://wiki.sugarlabs.org/go/Sweets_Distribution
- Debian:
 - <http://wiki.sugarlabs.org/go/Debian>
- Fedora:
 - <http://wiki.sugarlabs.org/go/Fedora>
- Linux Mint:
 - http://wiki.sugarlabs.org/go/Linux_Mint

GNU/Linux



VirtualBox

http://wiki.sugarlabs.org/go/Sugar_Creation_Kit/VirtualBox



Sugar on a Stick

http://wiki.sugarlabs.org/go/Sugar_on_a_Stick/Downloads

sugar on a stick



Sugar on Raspberry Pi

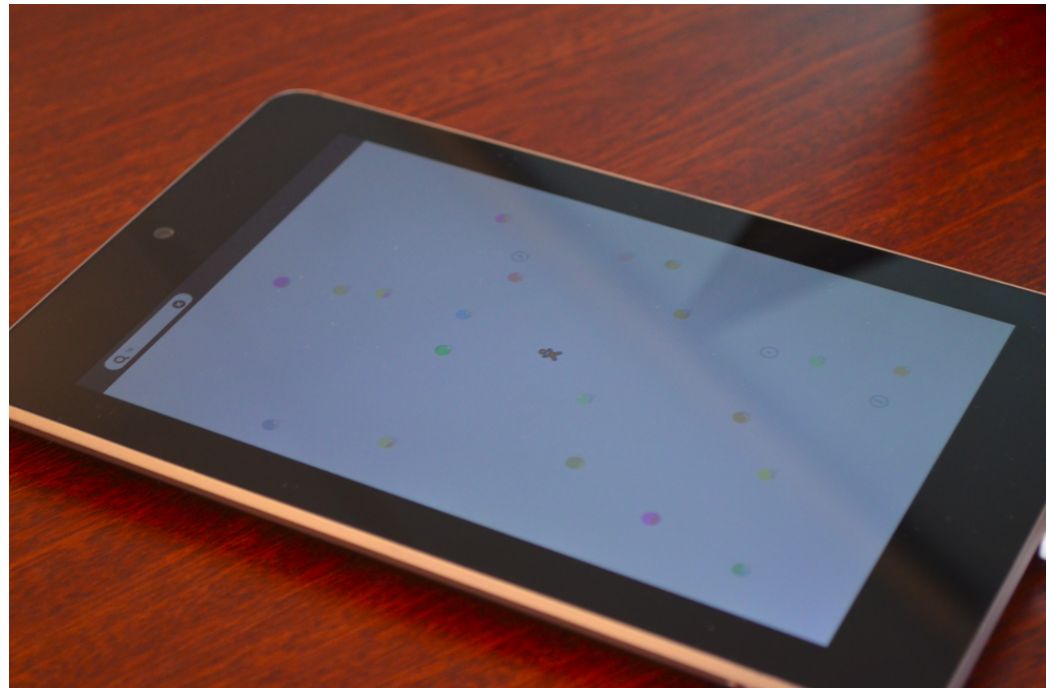


http://wiki.sugarlabs.org/go/Sugar_Creation_Kit/sck/Advanced_Topics#Pidora

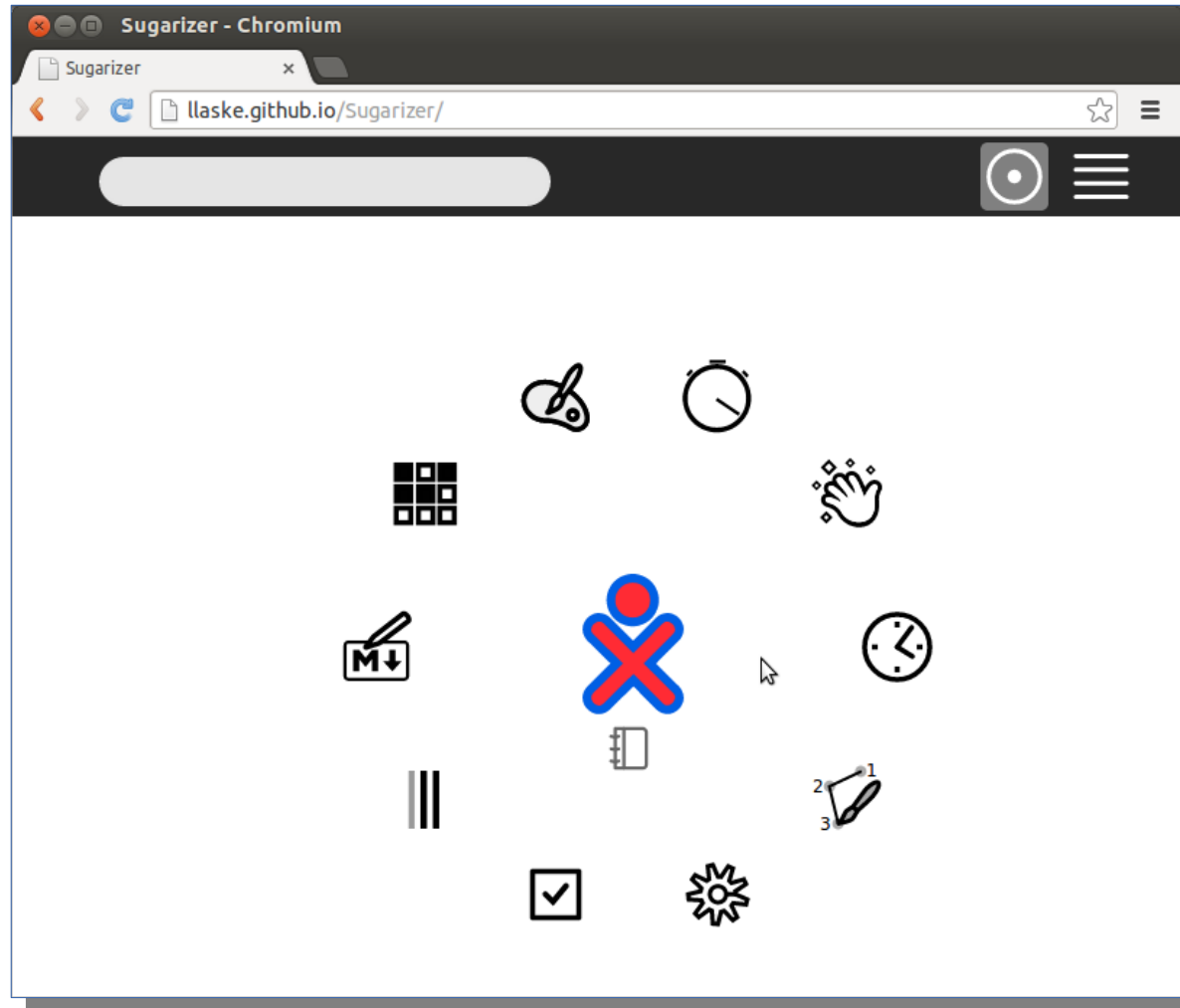


Sugar on tablets

- Tricky!
- Sugar on Ubuntu Desktop (not Ubuntu Touch) for ARM running on a Nexus 7.
- X-org and GTK dependencies.
- Android?



Sugar on the Web



<http://sugarizer.org> Works better in Chrome.
GitHub: <https://github.com/llaske/Sugarizer>

Apps Co-exist

- Sugar shell
- Activities in Python
- Activities in HTML5 + JavaScript + CSS

```
1 <!DOCTYPE html>
2 <html>
3
4 <head>
5   <meta charset="utf-8" />
6   <title>Sugarizer</title>
7
8   <!-- Sugar Framework -->
9   <link rel="stylesheet" href="lib/sugar-web/graphics/css/sugar.css">
10  <link rel="stylesheet" href="css/activity.css">
11  <script data-main="js/loader" src="lib/require.js"></script>
12
13  <!-- Enyo Framework -->
14  <link href="lib/enyo/enyo.css" rel="stylesheet" type="text/css" />
15  <link href="lib/enyo/lib/layout/layout.css" rel="stylesheet" type="text/css" />
16  <script src="lib/enyo/enyo.js" type="text/javascript"></script>
```

Volunteers and Projects

Find one in your neighborhood. <http://olpcmap.net>

olpcMAP - a geosocial network for Sugar and the XO  

[Join the Map Network](#)

[Laptop Help](#)


[About Map](#)


[Contact](#)


Volunteers


Projects


[Find](#)


 Project Think Big Nepal - ...
Children of Tomorrow (CoT) aim...


 Rwagaju Desire OLPC-Rwand...
As an learning Officer in OLPC ...


 Ob Anggen School
Ob Anggen School, Bokondini Pa...


 St. Andre's School
St. Dunstan's of Carmel Valley...

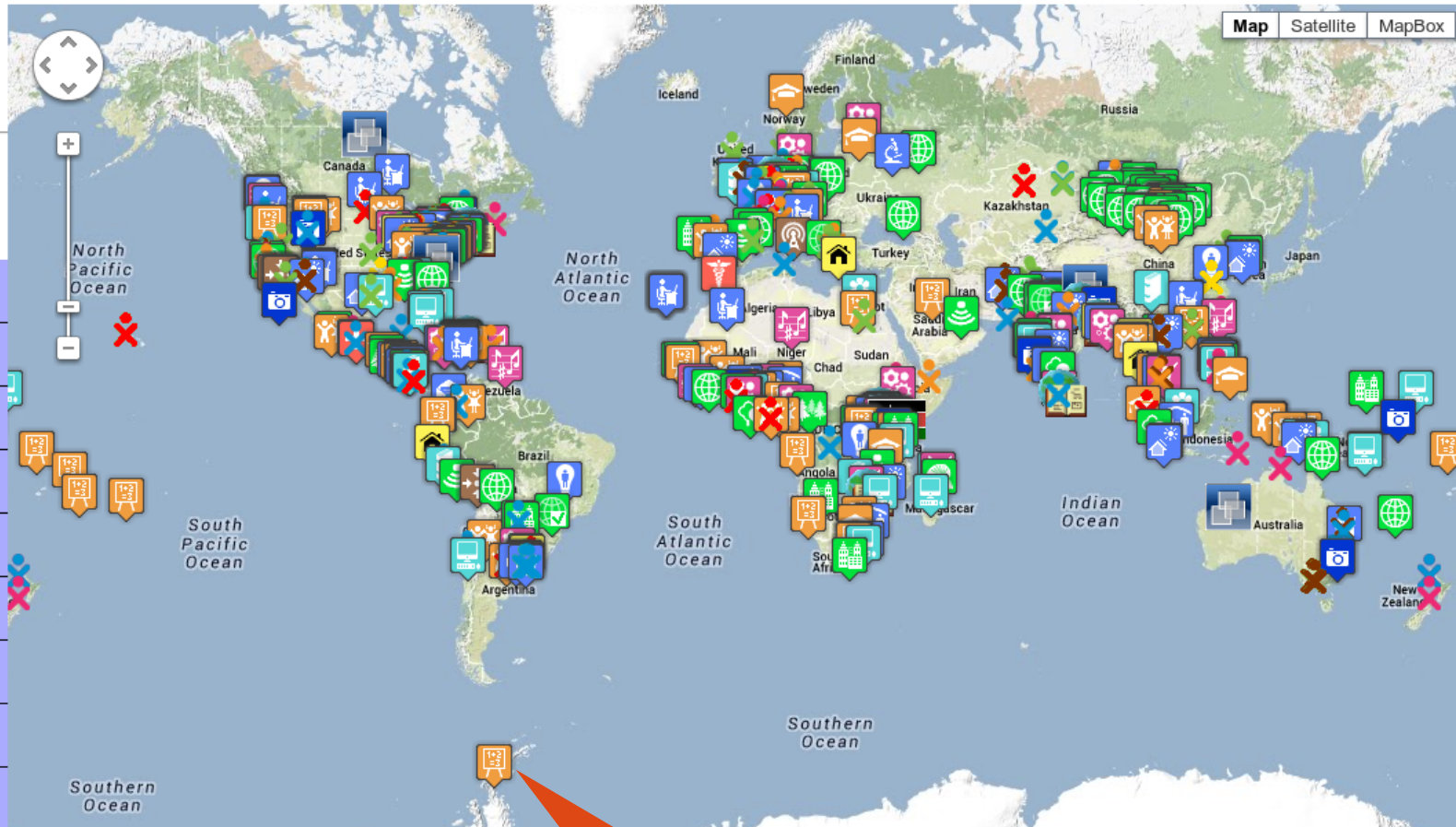
 Mutebi Stephen
We are determined to transform...

 Akure, Ondo State
Describe this place or persoAk...

 Sarah Naguib
I am an eighteen year old firs...

 Columbus School for Girls...
High School students take a ye...

 Mission of Hope Intl
A great little OLPC program ki...



Antarctica too!

Imagine.

