



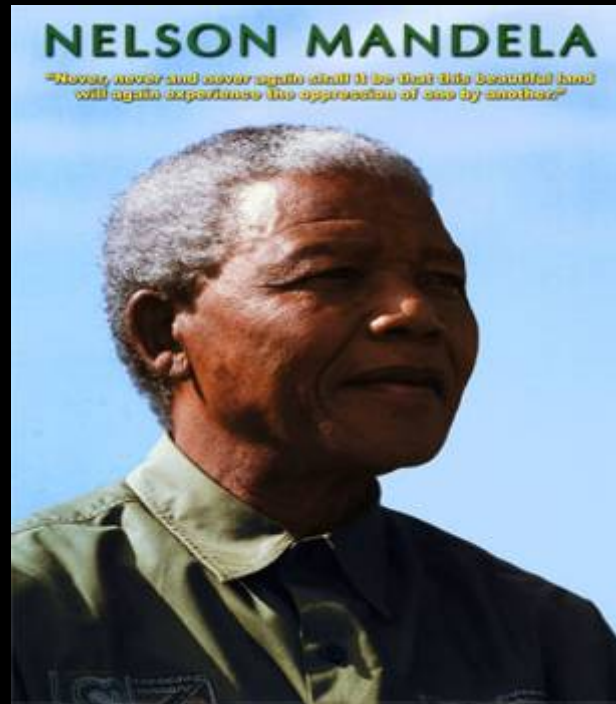
One Laptop Per Child

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NORTEL

Education



“Education is the single most powerful weapon you can use to change the world .”

Nelson Mandela

- In sub-Saharan Africa, more than one-third of primary school-age children are not enrolled in school at all
- Those who do enter the first grade, fewer than half will complete primary school.
- Schools lack resources & qualified teachers
- Over 100 million children desperately want to go to school!

One Laptop per Child

A Nortel-Sponsored Project



Pain Point

- Availability and cost of devices



Background

- OLPC Foundation's mission is to stimulate local grassroots initiatives designed to enhance and sustain over time the effectiveness of XO laptops as learning tools for children living in lesser-developed countries

Solution

- Advanced Technology Collaboration on 802.11s Mesh Technology
- OLPC is a proof point of Hyperconnectivity
- WiFi/WiMAX fundamental to educating the next generation

One Laptop Per Child



Five Principles:

- Child ownership
- Low ages
- Saturation
- Connection
- Free and open source



OLPC – XO Laptop Unique Features



- Technologically revolutionary **display** is fully **readable** in bright **sunlight**. The display is among the highest quality of any laptop currently being produced regardless of cost and is so clear that it comes close to a paper-like reading experience for users.
- **Rugged durability** to withstand the most severe weather and environmental conditions. The XO can be used outdoors--where children tend to spend most of their time--in the rain, sitting in a puddle of water after a downpour, or in a cloud of dust. The case also features a Wi-Fi antenna design that not only gives the laptop superior **Wi-Fi** range, but also protects it from falls as high as five feet.
- Engineered to operate "off the grid." The XO computers can be powered by numerous alternative power sources, including a pull cord, a solar panel, or a solar-powered multi-battery charger at the school. The XO machines **use less than one watt of power** when being used as an e-book and can operate for more than 12 hours on its battery.

How do we participate?

Partner Ecosystem



Computing



Digital Content & Teacher Support



Education Solutions

Nortel Applications
e.g., Multimedia Communications

Open Source & Standards
e.g., 802.11S

Networks
e.g., Broadband Wireless

Funding & Guidance

Applications:

“Learning without Borders” enables...



The Potential

Global Classroom

(Students can interact with students anywhere in world)

Tutors-on-Call/

Content-on-Demand

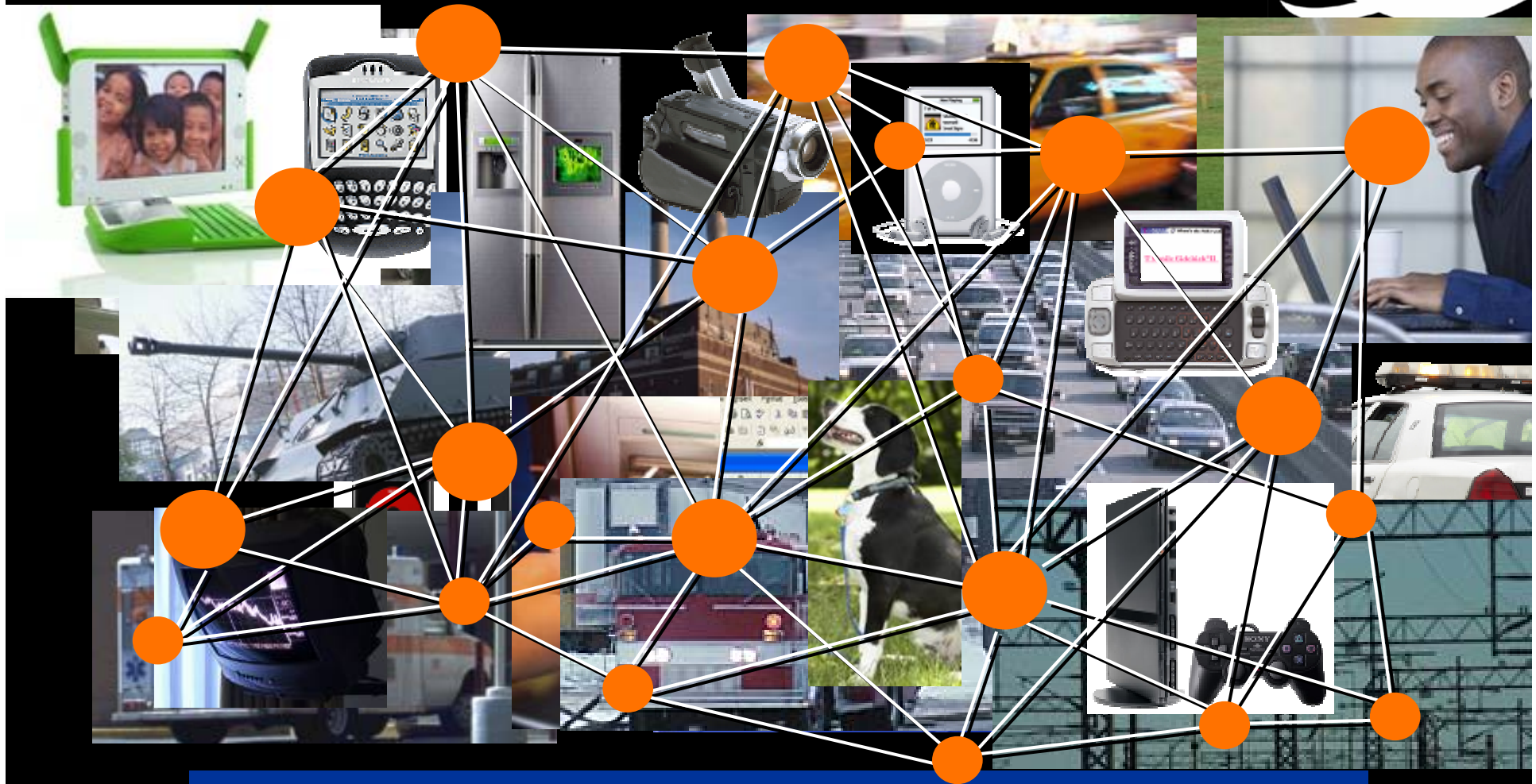
(Volunteers can support students; online content promotes learning on demand)

Teacher Mentors-on-Call

(Volunteers can provide support to teachers)



Multi-Media Communications Enrich the Online Collaboration



Anything that *can* be connected and would benefit from being connected *will* be connected

Hyperconnectivity is Real and Happening Now



Person to Person



- Europe – mobile phones now outnumber people (103% penetration)
- Global mobile IM grew 33% 2H06

- One Laptop Per Child



Person to Machine

- By 2010, worldwide:
 - 4-fold growth in Internet Commerce to 100B transactions
 - 1-2 billion A-GPS-enabled handsets
- 100 million iPods sold (market to double 2005 – 2010)
- iPhone available in June; hyper-connectivity at applications level

Machine to Machine



- 98% of all CPUs today are embedded (by 2010 – 14 billion connected, embedded devices)
- 70%+ of all 2007 cars in U.S. have iPod connectivity
- Sensor pocket in Nike shoes



Networks: Connecting Schools

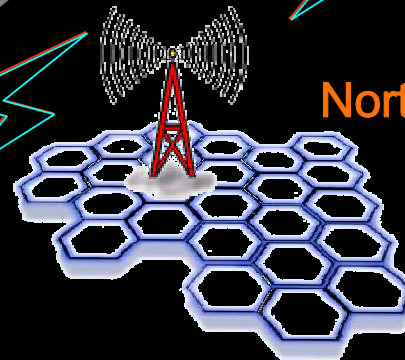


Nortel
WiMAX

School Gateway
To Wide Area



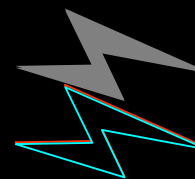
Nortel Wireless
Mesh



Internet



Nortel CDMA
EVDO



School WLAN Mesh

Connecting OLPC School to the Internet via Broadband Wireless

OLPC countries as of June 2007 (evolves on a daily basis)



South America: Peru, Panama, Uruguay, Brazil, Argentina, Paraguay, Mexico.
Africa: Nigeria, Ethiopia, Rwanda, Libya, Malawi
Asia: Pakistan, Thailand,

NEWS FLASH!

- G1G1 coming very soon! (Give 1 - Get 1)
- <http://laptop.org>
- <http://www.xogiving.org/>



Introducing the XO laptop.
Give 1 today

Give 1 Get 1 starting November 12



NEWS FLASH!



Weekend

A weekly update on the \$100 Laptop Vol. 3 No. 39 September 29, 2007

2. New York City: Nicholas met with President Paul Kagame of Rwanda. Rwanda will be among the first recipients of G1G1, matching laptops. The government will give another laptop for each one. In this case G1G1 becomes in effect G2G1. This sets a nice example for other nations.

3. New York City: Nicholas met with the Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) of the United Nations. That very long title is exactly the 90 countries OLPC wants to reach. At the meeting we agreed to hold a special meeting for OLPC at the UN, Monday, 22 October 2007.



Relevant Links

- OLPC: <http://www.laptop.org/>
- LearnIT: <http://www.nortellearnit.org/>
- Curriki: <http://www.curriki.org/>
- NTSA: <http://www.nortel.com/prd/academy>
- Mesh FOSS: <http://open80211s.com/>

Hyperconnectivity requires creativity...





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Business made simple