The Starfish on the Beach

Why OLPC for the poorest and most remote?
...
and how?

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Constructionism in Peru

• ... it all began because Marilyn Schaffer wanted to see Machu Picchu...

  ...the late 80’s

• ... and over the years one of his students became Minister of Education...

  2006-2008
Public Education in Peru

- 45,000+ Schools
  - 7M students
- Very low level in key areas: Reading, Math
  - Not only students
  - Poor teacher training - motivation
- 300,000 public school teachers
  - Frustrated
  - Underpaid (100% raise did not work)
  - Politically oriented union
- Poorly coordinated initiative
- 2007 major breakthroughs
  - Census evaluation for teachers
  - OLPC agreement
  - OLPT program
  - “New teacher” development program
  - Integrated learning space concept
The Problems…

• Meaninglessness in formal Education
  – Lots of how’s but very few why’s

• Absenteeism
  – Why go to a place like that, better help at home/farm

• Multiple grades sharing a room
  – Individual attention is non-existent

• A long way from home
  – 4 hours walk is not unusual (with no breakfast)

• Poor and scarce educational material
  – Lack of teacher development
Our Response: Strategic Planning not Emergency

• Massive systemic change: the only way to make Education a key success factor for development
• Strong pedagogical foundation of ICT use
• Incremental approaches: mostly too little-too late
• Poverty ecosystem: a constant threat to peace

Better teachers – Better Students – Better Communities

• It is possible to reverse the vicious cycle

2007-2008 will be key
Better Teachers

Teachers need to get their dignity back: a better human being will be a better teacher

Training in out of reach complex tools increases the gap and frustration: slow and costly

Self development potential in a nurturing environment

OLPC gives teachers ownership and reachable access

XXI Century Teacher Program: one laptop per teacher

“New Teacher” Development Program: Long term shift

Give teachers and students the opportunity to shape their futures is a key success factor
Improved Educational Materials: OLPC

Goal: Leading edge educational technology to the poorest

• One laptop per child initiative in primary schools
• Computer labs for secondary schools
• Internet access
• Satellite Educational TV for sensible contents
• Digital texts to make reading accessible
• Feasible connectivity
• Opportunities to change the world beginning today

Close to 1,000,000 XO laptops over 2008
XO in Perú at a Glance

• Full integration with National Curriculum
• New architecture: Most of them to poor electricity areas (be realistic with alternate sources)
• Selected learning applications: Low threshold/no ceiling
• Local texts preloaded: Spanish – Quechua – Aymara – Amazonic languages
• Mesh under 30 – Servers over 30 – Generators
• Little training – Self supportive environment
• User’s Guide in Spanish
• Multi party political support
• Realistic expectations
• UROP Program
OLPC Guiding Principles in Action

• Ownership: Laptop as educational material: 24x7
• Primary: 1-6 for one-teacher schools. 2/3-6 for multi-teacher
• Saturation: Every child and teacher. One USB key per school
• Connected: Synchronous/Asynchronous Internet connections
  – 3 tier initiative: Local mesh, Server, Internet access
• Poorest first: 210,000 one classroom school students and teachers
• Regional initiatives with local funding: 600,000 units
Arahuay Test Project

• Pedagogical
  – Immediate appropriation
  – Easy integration to current style/model
  – Reduction of absenteeism
  – Improved discipline
  – New applications

• Technical
  – World leadership

• Community
  – 100% coverage
  – Total commitment
  – Model expansion
## Comparative Table of Results: Test – Reading Comprehension

<table>
<thead>
<tr>
<th>Level</th>
<th>Number of students for level</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Before</td>
</tr>
<tr>
<td>Level 1</td>
<td>9</td>
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<td>Level 2</td>
<td>2</td>
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<tr>
<td>Level 3</td>
<td>0</td>
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<tr>
<td>Group 0</td>
<td>0</td>
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</tbody>
</table>
Local (Arahuay) vs National Levels

Percentage of Students at Acceptable Comprehension Levels
Some Warnings
Be Prepared for Negative Reaction

• From “educational experts”
  – No pedagogical model
  – Based on some obscure professors’ theories
  – Unrealistic

• The real objections: “It was not my idea” “I have done nothing”

• From “industry leaders”
  – Lack of teacher training / support model
  – No maintenance support
  – It is really more expensive

• The real objections: “We missed the market” “Wait for our product so we can make money”
Why should it matter?
The Children of Peru

Our reason to dream
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