Computing in Developing Countries

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Motivation

- Half of all people in the world live on less than $2.00 per day.
- 75% of those people live in rural areas.
- Access to education is limited.
- Computing is integral to the modern economy.

One Laptop Per Child (OLPC)

- 433 MHz AMD Geode
- 256 MB of RAM
- Dual mode 1200x900 7.5" monitor
- 1 GB Flash Memory
- Open Firmware and Linux
- Mesh wireless custom 802.11 protocol

Experimental Studies and Outcomes

- Current design uses 2W of power (24-40W typical in laptops).
- LCD handles both traditional color graphics and eInk type modes, uses less than 1 Watt.
- Pull cord powered (10:1)
- Could be delivered through current textbook channels.

Summary and Closing Comments

- Access to computing is important in the modern economy.
- The developing country places very strong restrictions on the kind of solution possible.
- Prototypes have been developed.
- Need large purchases to create sufficient volume to lower price.
- Buy Two Get One - http://www.laptopgiving.org