One Laptop Per Child
(AKA "$100 laptop", The Children's Machine project)
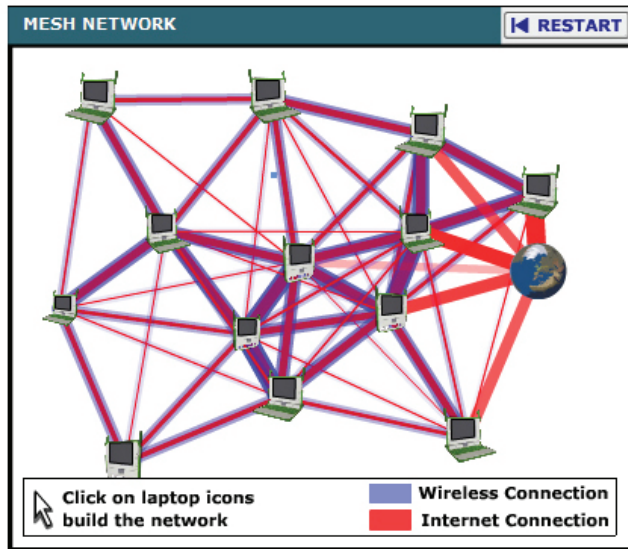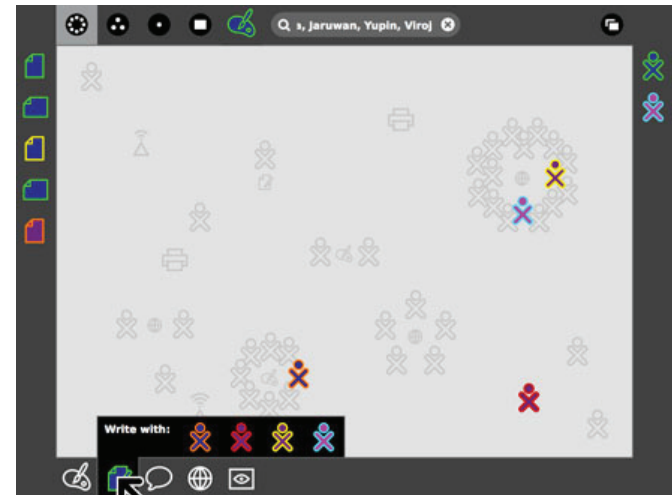

Design Management Analysis

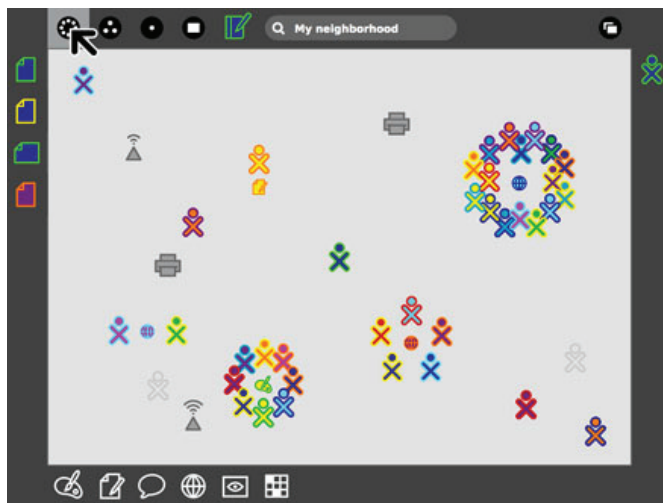Pratt DM, Design Futures, January 2008

Meet the XO-1, the actual laptop

Mesh Network

Sugar GUI

Sugar GUI

Processor:
AMD 433 MHz
Memory:
256MB SDRAM
Storage:
1GB Flash

Specs

"It's an education project, not a laptop project."
— Nicholas Negroponte

Goal/Vision

To provide children around the world with new opportunities to explore, experiment and express themselves.

The Five Principles

Child Ownership
"I wear my XO like my pair of shoes"

Low Ages
"I have good XO shoes for a long walk."

Saturation
"A healthy education is a vaccination, it reaches everybody
and protects from ignorance and intolerance."

Connection
"When we talk together we stay together."

Free and Open Source
"Give me a free and open environment and I will learn
and teach with joy."

Environmental Impact
E-waste
Longer Lifetime
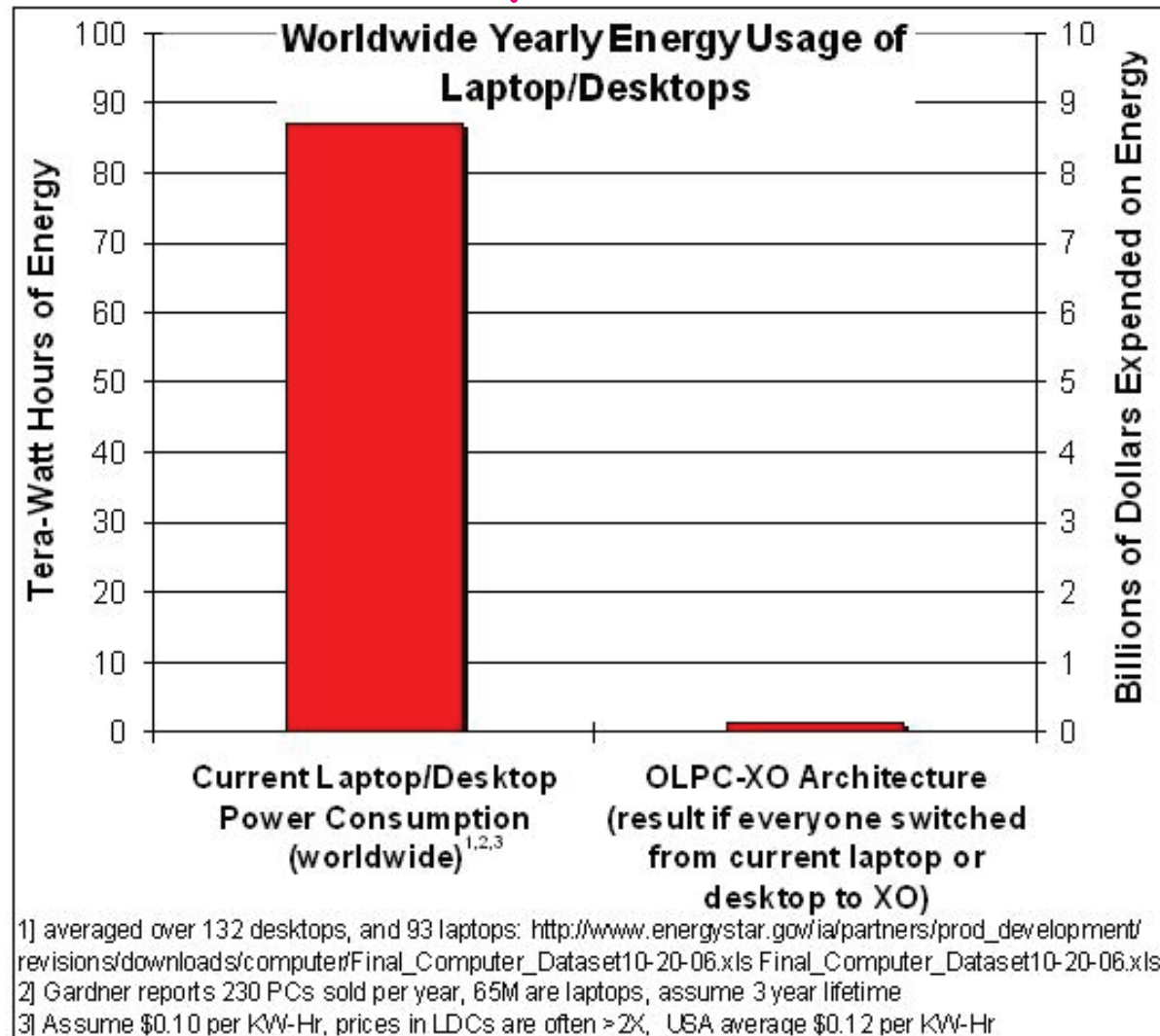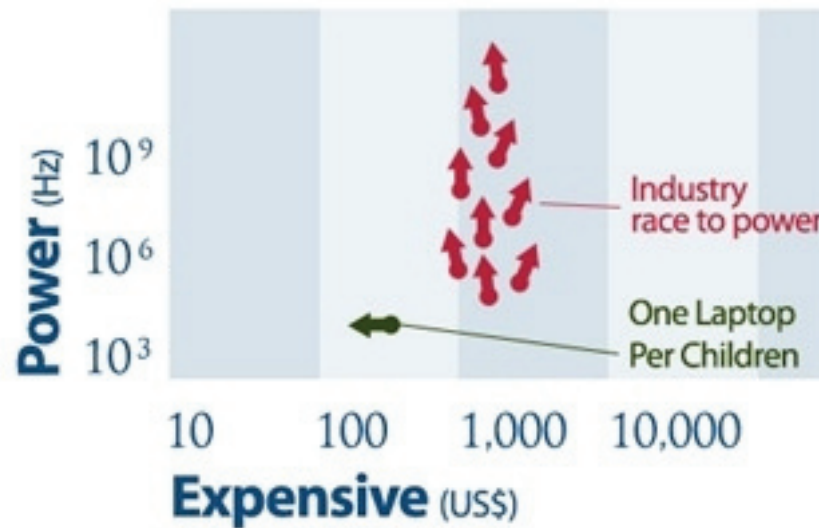Footprint
Toxicity
Full take-back program

Environmental Impact
Power Consumption. OLPC? OLPH!

Worldwide Yearly Energy Usage of Laptop/Desktops

1] averaged over 132 desktops, and 93 laptops: http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/computer/Final_Computer_Dataset10-20-06.xls Final_Computer_Dataset10-20-06.xls
2] Gardner reports 230 PCs sold per year, 65M are laptops, assume 3 year lifetime
3] Assume $0.10 per KW-Hr, prices in LDCs are often >2X, USA average $0.12 per KW-Hr

http://wiki.laptop.org/go/Environmental_Impact

Environmental Impact
EPEAT, IEEE 1680 Consumer Electronics Environmental Impact

Environmental Impact

the most eco-green laptop
ever made (Sept 2007)

The first gold rated EPEAT (Electronic Product
Environmental Assessment Tool) product.

MacBook Air received a Silver rating from EPEAT

Competitors? Collaborators?
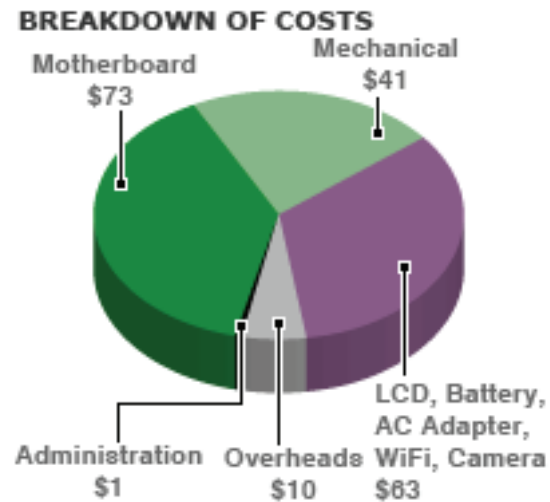

Shuttle's KPC

Intel's Classmate

Everex's GPC

Asus' Eee PC

Sales of 2007

Year of purchase	Confirmed number (approximate)	Date confirmed	Purchaser
2007	100,000 (5,000 delivered in 2007)	2007	Uruguay
	15,000	November 14, 2007	City of Birmingham (Ala)
	270,000	December 1, 2007	Peru
	50,000	December 1, 2007	Mexican billionaire Carlos Slim
	167,000 (Half to be distributed to developing world)	January 5, 2008	"Give One, Get One" program
Total	602,000		

Cost breakdown of laptop

BREAKDOWN OF COSTS

Motherboard $73
Mechanical $41
Administration $1
Overheads $10
LCD, Battery, AC Adapter, WiFi, Camera $63

The current cost/price is $188

I'm all in, where can I get one?

Will the green laptop be killed? If yes, who will kill the green laptop?

Computer-Industrial Complex, barriers to entry?

XO-2, the next OLPC laptop; G1G1 part 2?

Sugar GUI and Activities: the way forward?

Cheers!

Q and A's?

Children will be able to learn by doing, not just through instruction - they will
be able to open up new fronts for their education, particularly peer-to-peer learning.
Kofi Annan

Whatever big problem you can imagine, from world peace to the environment to
hunger to poverty, the solution always includes education. We need to depend
more on peer-to-peer and self-driven learning.
Nicholas Negroponte

One laptop per child: Children are your most precious resource, and they can do a
lot of self-learning and peer-to-peer teaching. Bingo. End of story.
Nicholas Negroponte