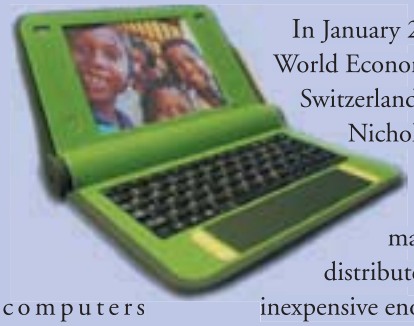
The $100 Laptop

A broad-based consortium works to deliver computers to every child



In January 2005, at the World Economic Forum in Switzerland, a man named Nicholas Negroponte announced a plan to design, manufacture, and distribute laptop computers inexpensive enough to give every child in the world better access to knowledge and modern forms of education.

Access to computers and the Internet is a major barrier to closing the global digital divide, and the One Laptop Per Child (OLPC) nonprofit organization [*http://www.laptop.org/*], which Negroponte and others founded to develop the affordable laptop, seeks to bridge that gap. The goal is to price the laptop at about $100 initially, and to steadily lower the cost as the technology continues to evolve.

Founding chairman of the Media Laboratory at the Massachusetts Institute of Technology in the United States, Negroponte and U.N. Secretary-General Kofi Annan unveiled a prototype of the laptop at the World Summit on the Information Society in Tunisia in November 2005.

The sturdy laptop—called the Green Machine—will be made of bright green plastic or rubberized material. It's an inexpensive, robust computer with open-source software, very low power consumption, and the capacity to be powered by hand cranking.

The laptops will have wireless broadband that, among other things, allows them to work as a mesh network—each laptop will be able to talk to its nearest neighbors, creating a temporary local area network. The laptops will use innovative power (including wind-up) and will be able to do most everything except store huge amounts of data.

OLPC is funding research at the MIT Media Lab to develop the $100 laptop. An international company called Design Continuum is collaborating on the design. Founding corporate members of the OLPC board of directors include Google, Rupert Murdoch's media conglomerate News Corporation in the United Kingdom, communications giant Nortel, and Advanced Micro Devices, a global supplier of integrated circuits. Quanta Computer of Taiwan, chosen after the board reviewed bids from several possible manufacturing companies, will be the original manufacturer for the $100 laptop.

The laptops will be sold to governments, and schools will issue them to children. OLPC has held initial discussions about distribution of the machines with China, India, Brazil, Argentina, Egypt, Nigeria, and Thailand. OLPC will also consider creating a commercial version of the machine.

The preliminary plan is to have laptops ready for shipment by the end of 2006 or early 2007. Manufacturing will begin when 5 million to 10 million machines have been ordered and paid for in advance.

"The biggest hurdle will be manufacturing 100 million of anything," Negroponte said in a statement on the OLPC Web site. "This is not just a supply-chain problem but also a design problem. The scale is daunting, but I find myself amazed at what some companies are proposing to us. It feels as though at least half the problems are being solved by mere resolve."

To make sure the laptops reach their intended users, the OLPC is a partner in the Connect the World initiative of the International Telecommunications Union (ITU). During a January ITU roundtable, political, business, and development leaders pledged their commitment to expand the benefit of information and communications technologies to people worldwide by 2015.

Also in January, at the 2006 World Economic Forum in Switzerland, United Nations Development Programme (UNDP) Administrator Kemal Dervis and Negroponte signed an agreement to work together with local and international partners to deliver the new technology to targeted schools in the least-developed countries.

Children in developing nations need laptops, Negroponte says, because laptops are a window into the world, a tool for thinking, and a vehicle for independent interaction and exploration.

Photo: The prototype of the $100 laptop computer. (Photograph from AP/Wide World Photos)