At Davos, the Johnny Appleseed of the digital era shares his ambition to propagate a $100 laptop in developing countries.

By John Markoff
January 31, 2005
The New York Times
Late Edition - Final
Business/Financial Desk; SECTC

DAVOS, Switzerland -- NICHOLAS NEGROPONTE, the technology guru from the Massachusetts Institute of Technology Media Laboratory, prowled the halls of the World Economic Forum holding the holy grail for crossing the digital divide: a mock-up of a $100 laptop computer.

The machine is intriguing because Mr. Negroponte has struck upon a remarkably simple solution for lowering the price of the most costly part of a laptop -- the display -- to $25 or less.

He has been a passionate advocate of using digital technology to improve the quality of life and erase economic barriers in the developing world since the early 1980's, when he took Apple II computers to Senegal with his colleague Seymour Papert.

Now, in partnership with Joseph Jacobson, a physicist at M.I.T., he wants to persuade the education ministries of countries like China to use laptops to replace textbooks.

He has not yet found a customer. Indeed, his mission has been complicated at Davos 2005 because the digital divide and the information technology industry are no longer the center of attention at this annual intimate gathering of the world's most powerful and wealthy.

The digital power elite remain in vogue. Bill Gates of Microsoft, Eric Schmidt of Google and Carleton S. Fiorina of Hewlett-Packard played prominent roles, as usual, at the January forum. There was a distinct shift, however, away from geek chic and toward traditional star power: Richard Gere, Sharon Stone, Angelina Jolie and Bono took center stage.

The rush to close the digital divide began in earnest at Davos in 1998 during the height of the dot-com era, driven by American executives like John Chambers of Cisco and John Gage of Sun Microsystems. Committees were formed, money was committed and during the next three years the idea of digital equity became a rallying cry for the world's dot-com elite.

"It was really cool, but in the end we got nothing done," one executive candidly acknowledged.

At the time, Mr. Gates was a notable skeptic, arguing that it was more important to address basic life necessities -- health and food, for example -- before connecting the world's poorest citizens to the Internet.

Although he was widely criticized for his remarks then, he now appears to have been vindicated. Mr. Gates was in the thick of the plenary discussions at the 2005 Davos forum -- considering ways of eliminating poverty and disease that do not encompass information technology.

In a late-evening discussion Jan. 28, however, he acknowledged the shift in emphasis: "I think it's fascinating that there was no plenary session at Davos this year on how information technology is changing the world."
Despite technology's absence from center stage, there was a general consensus that many of the technology companies have dug in for the long haul with significant education initiatives in countries like Jordan and Egypt, with support from companies like Microsoft and Cisco.

Mr. Negroponte said that he had found initial backing for his laptop plan from Advanced Micro Devices and said that he was in discussions with Google, Motorola, the News Corporation and Samsung for support.

The device includes a tentlike pop-up display that will use the technology now used in today's rear-projection televisions, in conjunction with an L.E.D. light source.

Mr. Negroponte said his experience in giving children laptop computers in rural Cambodia had convinced him that low-cost machines would make a fundamental difference when broadly deployed.

"You can just give laptops to kids," he said, noting that they quickly take advantage of the machines. "In Cambodia, the first English word out of their mouths is 'Google.'"

Advanced Micro, Mr. Negroponte's first backer, brought its own low-cost computer initiative to Davos 2005. Hector deJ. Ruiz, the chief executive, said that the company believed that its new Personal Internet Communicator, or PIC, might have a broader market than just developing countries.

At the 2004 Davos forum, the company started an effort to give half the world's population access to the Internet by 2015. Currently, about 12 percent of the world is connected.

Now, Mr. Ruiz said, Advanced Micro has been working with a variety of mainstream applications for low-cost computing, ranging from inexpensive Web surfing terminals to digital cash registers.

The PIC, which sells for $185 without a monitor and comes with a stripped-down version of Microsoft Windows, is housed in a rugged sealed case without a fan.

"With very minor alternations we can create a variety of new platforms," he said.

The box, which Advanced Micro hopes to shrink to the size of a deck of cards soon, has generated a good deal of interest. But the availability of an inexpensive device that can do the work of its higher-priced cousins will undoubtedly create challenges for high-technology companies as they try to sell low-cost versions of hardware and software products that are far more expensive in the developed world.

Several people at the conference, for example, suggested that Intel had shied away from inexpensive laptops for fear of cannibalizing its fastest-growing market. An Intel executive, speaking at the conference, responded that the company believed in offering computer users a wide variety of options.

Mr. Negroponte said he was confident that his computers, which run the free Linux operating system, would find a ready market as early as 2006.

"China is important because there are 220 million students," he said.