



CASE 11-3

One Laptop Per Child

As director of the prestigious Media Lab at the Massachusetts Institute of Technology (MIT), Nicolas Negroponte had a unique opportunity to immerse himself in cutting-edge technology development projects. Robotic design, artificial intelligence, holographic video, and educational applications for PCs were just some of the areas the Lab's various departments explored. In 2005, after 20 years at the Lab, Negroponte announced he was leaving to pursue an ambitious vision: bridging the digital divide between developed and developing nations by providing powerful PCs to schoolchildren in sub-Saharan Africa and other impoverished parts of the world. Negroponte named his initiative One Laptop Per Child (OLPC); his goal was to develop a \$100 laptop that governments could buy in large quantities and distribute to schools. As Negroponte said, "My goal is not selling laptops. OLPC is not in the laptop business. It's in the education business." In April 2007, Negroponte announced that he hoped to have between 50 and 150 million children using the new computer by the end of 2008.

"We do not view kids as a market, but as a mission."

—Nicolas Negroponte, founder, OLPC

The OLPC design team, which included Media Lab veteran Walter Bender, created a computer known as the XO that is rugged enough to stand up to heavy use and abuse. The XO is dust- and waterproof; a small solar panel can be used to recharge the battery. The laptop's high-resolution screen displays bright images even in sunlight; other features include a built-in video camera. Wi-Fi connectivity is provided by two small antennas on either side of the screen; some observers commented that the antennas look like ears on a friendly alien-type creature.

To keep the cost down, each computer was loaded with an open-source operating system known as Linux. Linux is nonproprietary; that

is, it is available for free to anyone who wants to use it. Moreover, Linux users are encouraged to make improvements to it. The user interface, dubbed Sugar, could also be modified by the children using the computers. As described by its creators, Sugar captures students' "world of fellow learners and teachers as collaborators, emphasizing the connections within the community, among people, and their activities." The design team believed that Linux and Sugar would foster collaborative learning among schoolchildren, in line with OLPC's core mission. The laptops were powered by microprocessors from Advanced Micro Devices (AMD); these cost less than components from Intel.

Another factor affecting the final cost was the volume of production. Negroponte needed firm purchase commitments so that production could be scaled up quickly. Government officials in Libya and Nigeria initially pledged to buy about 1 million computers each for their respective citizens; however, by mid-2007 both countries had backed off those pledges. As a result, the manufacturer, Taiwan's Quanta Computer, only achieved an initial production volume of 300,000 units. The lower volume, plus microprocessor upgrades, translated into a higher per-unit cost. The \$100 price—a key selling point—had to be abandoned. The new price target was in the \$180 to \$190 range.

The higher price was one reason that initial enthusiasm for OLPC did not translate into firm commitments for orders. Other issues surfaced as well. For example, some potential buyers worried about the lack of Microsoft's Windows operating system. Meanwhile, OLPC had attracted the attention of several industry heavyweights. In 2006, Intel officials demonstrated a laptop prototype called the Classmate that was designed to sell for \$230 to \$300. The Classmate featured Microsoft's Windows XP operating system, had four hours of battery life, and used a solid-state flash drive. In 2007, Microsoft chairman Bill Gates announced that his company would offer developing countries a

Exhibit 11-7 The non-profit One Laptop Per Child (OLPC) initiative has sold more than two million laptops since 2005. Today, however, OLPC faces competition from Intel's Classmate PC and Studybook tablet and others. The initiative has also faced criticism for its mission, and questions have been raised about assessable educational outcomes. Meanwhile, e-readers such as the Kindle are making inroads in Africa and developing countries in other parts of the world. Source: © Joerg Boethling / Alamy



\$3 software package that included Windows, Office, and educational software. The low-priced software was offered through Unlimited Potential Group, the Microsoft unit that targets developing countries; early customers included the governments of Libya and Egypt.

Negroponete accused Intel officials of trying to undermine his non-profit's efforts; for example, reports surfaced that Intel's sales force had made head-to-head comparisons between the Classmate and the OLPC laptop during presentations in Mongolia and Nigeria. Even so, Intel made a substantial financial contribution to OLPC and an Intel official joined the organization's board.

In November 2007, in an effort to increase production, OLPC announced a promotion called "Give One. Get One." Consumers in the United States and Canada were offered the opportunity to buy two OLPC computers for \$399. Each buyer would keep one laptop; the second would go to a student in Haiti or another developing country.

In 2008, faced with disappointing sales, Negroponete struck a deal with Microsoft. Starting in 2010, the OLPC laptops would be delivered with both the Microsoft Windows operating system and the nonproprietary Linux OS. Microsoft would provide the software for about \$3 per computer, bringing the total selling price of each laptop to \$199.

Discussion Questions

- 11-20. Why are Microsoft, Intel, and other leading for-profit companies interested in low-cost computers for the developing world?
- 11-21. Do you agree with Negroponete's decision to partner with Microsoft?
- 11-22. Discuss the thinking behind the "Give One. Get One." promotion. Do you think this is a good marketing tactic?

Sources: Geoffrey A. Fowler and Nicholas Bariyo, "An E-Reader Revolution for Africa?" *The Wall Street Journal* (June 16–17, 2012), p. C3; Nick Bilton, "One Laptop Per Child Project Works with Marvell to Produce a \$100 Tablet," *The New York Times* (May 27, 2010), bits.blogs.nytimes.com; Randall Stross, "Two Billion Laptops? It May Not Be Enough," *The New York Times* (April 17, 2010), p. BU5; Steve Stecklow, "Laptop Program for Kids in Poor Countries Teams Up with Microsoft's Windows," *The Wall Street Journal* (May 16, 2008), pp. B1, B2; Steve Stecklow and James Bandler, "A Little Laptop with Big Ambitions: How a Computer for the Poor Got Stomped by Tech Giants," *The Wall Street Journal* (November 24–25, 2007), pp. A1, A7; David Pogue, "\$100 Laptop a Bargain at \$200," *The New York Times* (October 4, 2007), pp. C1, C8; Kevin Maney, "The Latest Cool Tool You Can't Have: Laptops So Cheap They're Disposable," *USA Today* (February 28, 2007), p. B8; John Markoff, "At Davos, the Squabble Resumes on How to Wire the Third World," *The New York Times* (January 29, 2007), pp. C1, C2.