Jillian Maldonado is a 29-year-old student at the Mid-Manhattan Adult Learning Center and an Avon sales representative who earns $300 a week. On most nights, she takes the D train from her classes in Manhattan back to her third-floor apartment in the South Bronx. It’s a tough neighborhood. A few months ago she heard gunshots outside her window.

Once home, Maldonado cooks dinner. She cleans up. She helps her 9-year-old son, Nelson, with his homework. Then the single mother and her son bundle up and walk three blocks -- past a check-cashing store, a small supermarket and the occasional drug dealer on the corner -- to their local library.

A year ago, Maldonado’s computer stopped working and she cannot afford a new one. So almost every day she borrows one of the library’s laptops and sits down at a desk, rushing to submit customers’ orders online or research and write papers for her medical billing class before the library closes.

When she returns to her apartment, she rummages through her purse and places whatever money she can spare in a jar half-filled with coins and crumpled dollars. She’s saving to buy a laptop -- and grasping for a lifeline in the digital age.

“My teacher assumes everyone has Internet at home,” she said. “I feel like I’m being left behind.”
Maldonado is not alone. She is one of an estimated 100 million Americans who have no way of accessing the Internet at home. She and others are on the wrong side of the so-called “digital divide” -- the chasm between those who are connected to technology and those who are not. Some live in remote areas where broadband service doesn’t exist. Many live in blighted urban neighborhoods, unable to afford a computer, let alone Internet service. In the Bronx, for example, where the median household income is about $34,000, less than 40 percent of residents have broadband access at home -- the lowest of the five boroughs, according to a 2008 report for the New York City Council.

But being disconnected isn’t just a function of being poor. These days, it is also a reason some people stay poor. As the Internet has become an essential platform for job-hunting and furthering education, those without access are finding the basic tools for escaping poverty increasingly out of reach.

"The cost of being offline is greater now than it was 10 years ago," said John Horrigan, vice president of policy research at TechNet, a trade association representing high-tech companies. "So many important transactions take place online. If you don’t have access to high-speed Internet, you’re missing out on a lot."

About 80 percent of Fortune 500 companies -- including Target and Walmart -- only accept job applications online. High school students who have broadband Internet at home have graduation rates 6 to 8 percentage points higher than students who don’t, says a 2008 study by the Federal Reserve. Consumers can save almost $8,000 a year by using online resources to find discounts on essentials like apartment rentals, clothes, gasoline and food, according to an analysis last fall by the Internet Innovation Alliance.

Nationwide, 40 percent of households with annual incomes below $20,000 (below the poverty line for a family of four) have broadband access at home, while 93 percent of households with incomes exceeding $75,000 have high-speed Internet, according to a 2010 Federal Communications Commission survey.

The survey found that cost was the most-cited factor as to why people didn't adopt the Internet at home. Many experts say a lack of competition among Internet providers keeps prices high and is a big reason why many low-income Americans cannot afford service.

The Obama administration set aside $7.2 billion from the stimulus package to bring high-speed Internet to underserved areas. The money has allowed companies to install or upgrade 18,000 miles of new broadband networks, add or upgrade more than 16,000 computer workstations, and create more than 110,000 new subscribers in both urban and rural low-income areas, according to the Commerce Department.

Other measures are also underway to help bridge the divide. The Federal Communications Commission plans to overhaul its Lifeline program to provide discounted Internet service to families in need, and has partnered with major cable providers to supply $10 Internet access to households with a child enrolled in the national school lunch program.
FEWER OPTIONS, HIGHER PRICES

Yet such efforts do not address the underlying policies that make high-speed Internet unaffordable to the poorest Americans, experts say. Under the Bush administration, the FCC decided that cable companies should be exempt from federal regulations that forced them to lease their lines to their rivals, saying the requirements would have curbed their incentives to invest in their networks.

Many experts, however, say building a broadband network is so expensive that without such regulations new players can’t compete, leaving consumers to choose largely between two Internet providers: the cable company and the telephone company. Without more options, there is nothing to push down Internet prices, according to S. Derek Turner, research director of the public interest group Free Press.

“If we had competition, that consumer in the Bronx wouldn’t have to pay $40 a month for basic Internet service,” Turner said. “They’d be paying $15 or $20 a month.”

Other countries that require companies to lease access to their rivals often have lower Internet prices, according to a study by Harvard’s Berkman Center for Internet & Society. In Sweden, customers pay $19 a month for broadband Internet of 1 megabit-per-second, while American consumers pay $35 a month for the same speed, the New America Foundation found.

Brian Dietz, a spokesman for the National Cable and Telecommunications Association, insisted that "competition is very strong" among Internet service providers because cable companies are competing against satellite Internet providers and telephone companies for customers. "There isn’t an industry that has done more to bring broadband to all of the United States than the cable industry," Dietz said.

But the cost of high-speed Internet is inching higher. In 2010, the average monthly broadband bill was $40. That’s up from $34.50 in May 2008, according to surveys conducted by the FCC and Pew Research Center.

For Maldonado, such prices are out of reach, and her lack of online access at home is taking its toll. She needs the Internet to research doctors who accept her insurance and to look up confusing medical terms for her class. She can’t check email regularly to keep in touch with family or reply to other job opportunities. She spends extra time in the computer lab at school, jotting down notes from the Internet to study later because she doesn’t have access to a printer. Her son also needs to get online to finish homework assignments.

Maldonado has even started bartering her services for Internet access, doing her friend’s hair and nails in exchange for using the woman’s laptop and Wi-Fi connection.

“It’s just so exhausting because I use the Internet all the time,” she said. “I’m always back and forth to the library. Some days, I feel completely defeated.”

A MAJOR INCONVENIENCE

On a recent afternoon at the Bronx Library Center, Jamal Mason sat before a computer screen while a small clock counted down the minutes until his online session expired, forcing him to give up his seat to the next person in line.

Wearing a button-down shirt and thick-framed glasses, Mason, 42, was searching for a job as a substitute teacher. But he is grateful for any kind of work. He tutors on the side and has applied for jobs at Home Depot and six Gap stores. Every application was online, he said.

Though he owns a desktop computer, Mason canceled his Internet service a few years ago because it was too expensive. The library’s computer, with its 45-minute limit, is the only place where he can apply for jobs.
“It’s a major inconvenience,” Mason said. “I have to take a 20-minute bus from home just to get to the library. Then I come here and there’s a time limit, so I’m racing the clock.”

For job seekers like Mason, it is no longer enough to just look for open positions and submit resumes and cover letters online. They must also have an online presence. Many recruiters, for example, use the social networking site LinkedIn to choose applicants for interviews, said John Crant, a career coach who teaches job readiness workshops at the New York Public Library.

"If there's not more of your story online, your resume ends up in the other stack and you're weeded out of competition," he said. "To be among the population that doesn’t have ready access to the Internet is a real disadvantage."

Shamika Woolridge, 33, of the Bronx, relies on library computers to take online classes at Colorado Technical University. She also suffers from cerebral palsy, making it difficult for her to walk the five blocks to the library. If she had Internet at home, she said she would have already completed the online degree she started five years ago. She also could go online to check the grades of her 13-year-old son, Elijah.

“He was missing a whole bunch of assignments,” said Woolridge, who lives in a shelter with her three children, ages 13, 10 and 5. "I didn’t even know about [them] because I didn’t have Internet.”

Shamika Woolridge pushed her new computer down the street with her son, Elijah.
CONNECTING THE BRONX

The cost of Internet service, however, is not the only reason one-third of Americans are not online. Many people who don’t have Internet at home say they are uncomfortable with computers or find the Internet irrelevant, according to surveys.

“When you start to look into those reasons, it becomes clear you need a fairly sophisticated intervention to try to get people online,” said Horrigan, the researcher at TechNet.

One example of this intervention took place on a recent Saturday at The Angelo Patri Middle School in the Bronx, where about 50 families arrived for a digital literacy class. Taught in Spanish and English, the classes reflected the community’s large immigrant population.

In one classroom, Bernhard Rauch, 44, a special education teacher at the school, demonstrated how to navigate the Internet and use Microsoft Office.

“Who knows what a PowerPoint presentation is?” Rauch asked.

No one raised a hand.

Afterward, every family -- including Woolridge and her son -- received a free desktop computer provided by Per Scholas, a local nonprofit that refurbishes donated computers. Yet many families who received computers still cannot afford Internet at home and might not understand its usefulness, Rauch said.

“They don’t know they don’t need to spend three hours standing in line to pay the cable bill when they could be doing that online,” Rauch said. "A lot of them think the Internet is something high-tech that only people in Manhattan use.”

Stuart Reid and Doug Frazier are trying to change that. With the help of $1 million in state funding, Reid and Frazier have created more than 300 Wi-Fi hot spots in underserved communities across New York City, including six housing projects in the South Bronx. The wireless hotspots have more than 20,000 unique visitors a month, Frazier said.

Reid, 63, and Frazier, 61, began their company, Urban Communications Transport, back in the 1980s to try to overcome discrimination of cable television service in the South Bronx. Now, their mission is to bring Internet to as many people as possible.

The beating heart of their small, minority-owned business is located on the seventh floor of a building next to a Kentucky Fried Chicken on East 149th Street in the South Bronx. Inside their cramped office, tangles of fiber-optic cables dangle like spider webs from the ceiling. The cables connect to dozens of servers stacked on top of each other against a wall, each one powering a Wi-Fi connection somewhere in New York City. Five fans and an air conditioner blow cool air on the servers to prevent them from overheating.
Reid and Frazier don’t work alone. Their company is part of the "Digital Divide Partnership," a citywide consortium that includes One Economy, a nonprofit group focused on bringing the Internet to underserved areas, and several community development agencies.

"We’re trying to level the playing field," Frazier said.

Just a few miles away from their office, Jillian Maldonado is trying to do the same. She recently went shopping for a laptop and found one she liked for $500, but decided it was out of her price range. Little by little, she has been setting aside money in her jar.

"I can’t really save much," she said. "It’s $10 here, some loose change there. Whatever is left over.”

But the other day she dipped into the jar to cover the electric bill. Then she dipped into the jar again because her son, who receives federally subsidized meals, asked her to buy him lunch.

Still, Maldonado remains focused. She recently applied for a second job as a filing clerk, hoping the extra cash will help her gain the tools she needs to become a full-time member of the digital age.

“Sometimes it can be really frustrating, but I push forward as much as I can,” she said. “I can’t afford to fall behind.”