Connect Detroit:
Lessons from One City’s Efforts to Bridge the Digital Divide

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One in a series of independently reported articles reviewing Knight Foundation’s own grant making. To see previous stories in the series, visit knightfoundation.org/detroitbroadband.
Jean Caldwell stares at her computer screen then looks over at her 14-year-old grandson, Devin Lewis, for help. He whispers a few words, then reaches over and taps out a few keystrokes on her black laptop. A smile spreads across her face as the website she wants to view finally begins to load.

It’s late summer and the two are in the third week of a month long digital literacy course at Focus: HOPE, a nonprofit neighborhood association housed in renovated auto factories and administration buildings on Detroit’s northwest side.

Every Monday and Wednesday morning in June, Caldwell, 53, is learning tasks that many Americans consider routine — using Web browsers, uploading documents such as resumes to websites, paying bills online and effectively using search engines to find essential information such as job listings on the Internet.

The grandmother-grandson team, along with 20 other students in the classroom, is taking part in the Detroit Connected Community Initiative (DCCI). The challenging and ambitious project, funded in part by Knight Foundation and operated by four Detroit nonprofit groups including Focus: HOPE, is expected by May 2012 to provide 5,250 residents in three of Detroit’s poorest areas — Hope Village, Osborn and the Northend neighborhoods along Woodward Avenue — with both the tools and the training to access the digital world.

“Everything you want is in there, on the Internet,” Caldwell says just a few days before she expects to graduate and start using her new skills to find a job. “You just gotta know how to go find it.”
Until they went through the training, Caldwell and her fellow classmates were among the estimated 100 million Americans — almost one-third of the country’s population — who don’t have access to high-speed Internet at home. Many also lack the basic skills to fully engage in today’s $8 trillion Web-enabled economy, according to recent research by the Federal Communications Commission. By contrast, in countries such as Singapore and South Korea, 90 percent of the population uses broadband connections.

The federal government is taking steps to bridge the deep digital divide, including announcing new initiatives in mid-October, designed to bring millions more Americans online in the next several years. In announcing the plans (broadband.gov/plan), FCC Chairman Julius Genachowski remarked that “in the 21st century, having one-third of Americans sitting on the sidelines (of the Internet) is as unthinkable as having one-third of our country without electricity in the 20th.”

But finding the best route to take people from the technology sidelines to the center of the playing field remains a complex problem for which few communities, or even the federal government, have solutions. In Detroit, however, lessons (some learned after major technology setbacks) are emerging on what works and what doesn’t in bridging the digital divide.

Notably, the project’s leaders have discovered that digital literacy — not simply the cost or availability of an Internet connection — is critical to closing the digital gap. While providing tools such as computers and Internet access has been important in Detroit, the real power lies in teaching people how to use the Internet and making it relevant to their lives.

“(Relevance) is why we are seeing a difference with this project,” says Scott Gifford, vice president of community development at Matrix Human Services, one of the nonprofits involved in the Detroit project. “This time, we are showing people through the classes that they don’t have a choice but to be online. They realize that they will not be able to bank or get a job or do many things in the near future without having a working knowledge of the Internet.”

The project, which has morphed and shifted over the past two years, got its start in September 2009, when Knight awarded $810,000 to Community Telecommunications Network to create a broadband network. CTN, a nonprofit technology organization, is associated with Wayne State University, Detroit Public Schools and Detroit Public Television, among others.

The grant was part of Knight’s continuing efforts to create informed and engaged communities, particularly in Detroit where it has been involved for many years in programs to get residents affordable access to the Internet and teach them how to use it to enhance literacy, job skills,
safety and health. (Please see accompanying sidebar on Knight-funded Technology, Literacy & Career Center at the Parkman Library). Nationwide since 2005, Knight has invested close to $18 million in its Universal Access initiative, including funding in 2009 the Knight Commission on the Information Needs of Communities in a Democracy, which concluded that broadband access and digital literacy are key to ensuring healthy, democratic communities in the future.

Using part of the Knight funds, CTN teamed up with neighborhood nonprofits including Matrix Human Services, Focus: HOPE and the Family Place, a part of the Child Care Coordinating Council (4Cs), to begin recruiting the more than 5,000 people who would receive training and Internet access. As the project progressed over the next two years, the neighborhood nonprofits also collaborated on creating digital literacy programs — from building curriculum to hiring trainers and donating space in their buildings to host the classes. The nonprofits — all of which have operated in Detroit for decades, offering everything from job training to child care — were drawn to the project as a way to help their residents fully engage in today’s digital society.

Unlike other efforts around the country, such as programs in Philadelphia and San Francisco that sought to provide Internet access across a city, the Detroit initiative started with a more focused and integrated plan. The grantees knew they wanted to provide Internet access to discrete neighborhoods instead of blanketing the city. They focused on neighborhoods where broadband penetration is below 40 percent and poverty levels are nearing 30 percent of the population. Three key demographics also were targeted: senior citizens, families with children and young adults looking for work.

Initially, CTN planned to use the Knight funding primarily to build an all-new broadband network that would provide free or low-cost Internet service to the three neighborhoods. At first, under the terms of the grant, CTN would build that network by itself. But Clearwire, a company now partially owned by Sprint, stepped in not long after the grant was awarded and offered to build the infrastructure for free and donate the Internet connection to the project as it moved forward with plans to launch its commercial broadband services in Detroit.

The network chosen was a combination of commercial-grade Wi-Fi equipment and WiMax, a 4G-wireless access network owned and operated by Clearwire, but using spectrum once reserved for educational purposes. WiMax, which stands for Worldwide Interoperability for Microwave Access, can replace fiber, cable and even cellular networks to provide broadband access to homes at a lower cost than digging up roads to lay fiber or cable. It also has longer potential range — from one to four miles, depending on interference from infrastructure — and is more secure than traditional Wi-Fi networks. With WiMax as its backbone, the initiative was expected to give targeted Detroit residents access to one of the most reliable and technologically advanced networks in the country by the end of 2010.
Detroit Broadband Initiative

The Project Partners

The Detroit Connected Community Initiative is made up of four lead partner organizations working in collaboration to bring broadband networks, digital literacy and computers to more than 5,000 residents in Detroit. The initiative, organized in March 2009 with sponsorship from Knight Foundation, attacks two barriers to Internet usage – access and adoption. The partners teamed up to obtain $3.1 million in federal stimulus funds to show residents how to harness the power of the Internet.

The main partners are:

Community Telecommunications Network, a 501c3 nonprofit corporation, tasked with building and operating the broadband network in Detroit. Created in 1987, CTN is a partnership of Detroit Public Television, Macomb Intermediate School District, Oakland Schools, the School District of the City of Detroit, Wayne Regional Education Service Agency and Wayne State University.

(In 2009, Knight Foundation provided Community Telecommunications Network $810,000 to enable the Detroit Connected Community Initiative to provide high-speed Internet access in low-income neighborhoods. Grant Period: December 2009 to December 2011)

Family Place/Child Care Coordinating Council is a collaborative of nonprofit organizations that partner with city and county government agencies to provide early childhood development support and training, focusing on pregnant teens, women and families with children under the age of nine. It has provided digital literacy courses and computers to women and young families in the Northend neighborhoods along Woodward Avenue.

(In 2011, Knight Foundation provided Child Care Coordinating Council (4cs), $200,000 to support a Community Technical Center. Grant Period: December 2007 to December 2011)

Focus: HOPE, founded in 1968 by Father William Cunningham (1930 - 1997) and Eleanor Josaitis (1932 - 2011), the organization provides job training and community programs to attack the problems of hunger, economic disparity, inadequate education and racial divisiveness. It played a key role in creating the initiative's digital literacy programs and provides space for classes to residents in its targeted Hope Village neighborhood.

Matrix Human Services, whose roots reach back to 1906, primarily serves the Osborn neighborhood on Detroit’s east side, providing skills courses, housing and other services. Matrix provides digital literacy courses at its location within the neighborhood.
While **CTN** began working with Clearwire to build the network, the neighborhood nonprofits used Knight funding to start recruiting more than 5,000 people in their neighborhoods to receive the free Internet service. And they teamed up to seek additional funding for free computers and digital training, which the nonprofit partners increasingly saw as critical to recruiting people to the broadband project.

Through the help of Brenda Price, the former Knight program manager in Detroit, the project attracted the attention of health insurer Blue Cross Blue Shield of Michigan, which donated 1,700 refurbished computers to be given to participants after they completed the four-week training courses.

Notably, the Knight funding also helped put in place the necessary partnerships to attract $3.1 million in matching funds from the federal government through its Broadband Technologies Opportunities Program (BTOP), a part of the $7.2 billion American Reinvestment and Recovery Act.

But even as the project was successful as a catalyst for other funding and the neighborhood nonprofits made plans to start the digital literacy training in 2010, it was running into major technology issues that threatened to derail everything.

**CTN** originally planned to put up four WiMax towers itself, but changed course when it persuaded Cisco Systems Inc. to build up to 11 towers for free as part of a field test of WiMax that would blanket the neighborhoods with signal. But ultimately, Cisco decided not to invest in the WiMax technology and instead refocus on its core business.

Clearwire stepped in and committed to build three WiMax antenna towers by September 2010 to serve both its commercial customers and the neighborhoods targeted for free broadband. But economic issues forced the company to focus on building up its commercial network and the Detroit project lagged, says Patrick Gossman, executive director at **CTN**.

Gossman says he had little negotiating room considering that he wasn’t a paying customer. Finally, in April 2011, seven months after the network was expected to be up and running, Clearwire completed construction of the three towers and began providing free Internet service.

Along with the major time delay because of Clearwire, Gossman acknowledges that the smaller WiMax network doesn’t have the penetration that was hoped for when the grant was initially awarded. The three antennas reach only about 40 percent of the target areas.
And crucially, the delays meant that very few of the first groups going through the digital literacy courses starting in September 2010 could take advantage of the free Internet access from the Knight-fund project. By August 2011, more than 2,100 people had graduated from the courses and 1,700 of them also had received free Blue Cross Blue Shield computers. But because of the delays in the broadband network and its significantly smaller reach, only about 300 people were using the initiative’s free broadband access.

The majority of trained residents, slightly more than 1,500, were paying for their own home Internet access via commercial providers available in Detroit including Comcast and AT&T – a statistic CTN verifies by reviewing billing statements of digital literacy graduates. Commercial rates vary for these residents, but the average rate for monthly Internet in Detroit is about $30.

Instead of viewing the technology setbacks as failures, the grantees say the fact that people — many of whom live below the poverty line — have found a way to afford Internet access reveals an important lesson.

“Training, support and computers have gotten these people over the canyon of the digital divide,” Gossman says. “Some still need free or lower cost Internet access, but training and computers may prove to be the most important piece of this grant.”

While research has highlighted that Internet access alone won’t bridge the digital divide, few on-the-ground projects prove the point better than Detroit. Pew Foundation surveys show that relevance outranks access and its cost as barriers to Internet adoption by consumers. But the Detroit findings underscore that in a real world example.

For Jean Caldwell, who buys her own access, the Internet’s power came into focus in the last week of her digital literacy course. Her expectations going in, she says, were simply to gain some basic skills — and to better understand what her grandson was doing in school. But by the last week of the course, her plans had changed.

“Getting my diploma has been a big thing on my mind,” she says. “Now I can see a way of making it happen with the computer.”

J-Renee Stevenson, 38, has been using her computer and newly found digital skills to develop her small business — a food cart that she sets up in downtown Detroit every day. “You are held back if you don’t have the things you need,” she says. With the aid of the initiative, Stevenson says she is able to grow her business — and help her children excel in school.

(Click here for a video of Caldwell)

(Click here for a video of Stevenson)
Stephen Pitts, 55, is studying art online and teaching neighborhood children to paint. An artist, Pitts lost some of his memory and motor skills after a head injury. Online classes have taught him to paint again without leaving home. “I’m almost as good as new,” he says. (Click here for a video of Pitts)

But even with these early successes, the grantees are still faced with training 3,000 more residents by next May and making good on their promise to give them free computers if they complete the courses. They also aren’t giving up on promises of free or low-cost Internet service to the neediest residents through WiMax or Wi-Fi.

Denise Wellons-Glover, project director at Family Place, says free computers and Internet access help provide the incentives people need to come to the classes, which last four weeks and take up two hours a day, two days a week. For people who often take two to three buses to attend the classes, she says the time commitment is significant.

Going forward, Gossman is negotiating with commercial carriers such as Comcast, AT&T and Clearwire, for other ways to provide Internet connections beyond even the life of the grant, which ends in May 2012.

These include negotiating with commercial carriers such as Comcast, AT&T and Clearwire for Lifeline Internet access packages for about $10 per month based on people’s income levels. Gossman also hopes residents will be willing to pay a nominal fee to keep the neighborhood WiMax network going “once they understand the importance of it.”

“In the long run, my hope is that we will see the cost of broadband come down just as we saw cell phone service come down and people will be able to afford to get it,” he says.
Meanwhile, to make the most of the free WiMax signal, the neighborhood nonprofits are focusing their digital training recruitment efforts on residents who live where they can receive the signal. For others in areas WiMax can’t reach, the grantees are building pilot Wi-Fi “mesh” networks. They are placing Wi-Fi radio receivers on houses to pick up a core signal from antennas on the rooftop of Family Place/4Cs, for example. Those in turn are linked back to the center’s commercial Internet service providers, and the center pays for that connection. (For now, the commercial carrier in the area is allowing the community center’s signal to be spread to neighboring households without payment.)

Wanda Rocquemore’s house in the Northend neighborhood is one of the first links in the Wi-Fi mesh. Rocquemore took her training courses at Family Place during its early fall 2010 sessions. She also was one of about 80 people who received free Internet service through a 2008 Knight grant to 4Cs until money for that pilot project ran out. From knowing hardly anything about computers, she has decided to change careers by taking certification courses in computers.

But the new WiMax signal doesn’t reach her neighborhood. So Rocquemore has had to balance her computer on a radiator near a front window in an effort to pick up a signal from the antenna on the Family Place roof.

In late June, CTN consultant Steve Pierce — determined to find a way to find a way for Rocquemore use her computer anywhere in her house — attached a Wi-Fi receiver to a downspout on her 80-year-old stucco home. That solution did the trick.

“Eventually, we should have enough of them on the outsides of homes, that we can zigzag the signal down the street,” Pierce says.

And that may finally mean that Rocquemore and her neighbors will have Internet access so they can use their new-found digital literacy skills.

“I need to get online,” says Rocquemore. “This is helping me reinvent myself.”

Analysis Highlights continued

Despite delays in creating the broadband network, the initiative partners pushed forward on digital literacy courses and computer distribution beginning in September 2010 after teaming up to obtain $3.1 million in federal funding to train residents and donations of 1,700 refurbished computers from Blue Cross/Blue Shield.

Partners agree that showing residents the relevance of the Internet to their daily lives and providing them with computers have been keys to getting them on the Internet. In fact, the setbacks in the broadband network have highlighted the fact that many people will do what is necessary to obtain Internet access when they know why it is important: 1,500 of 2,100 residents trained to date purchase their own Internet access.

Residents are using their newly discovered digital skills to find jobs, help children with homework, take classes and participate in the Internet economy. By May 2012, about 3,000 more residents will join them, now that most network issues are being resolved.
Focus on digital literacy

Digital literacy is key to bridging the digital divide. In a month long course, participants learned how to use web browsers, upload documents such as resumes to the Internet and use search tools to find information. After graduating, a majority chose to purchase Internet access instead of waiting for the initiative’s free network to come online, highlighting that literacy and relevance are the key factors to people’s use of the Internet, not necessarily the cost.

Highlight relevance to people’s daily lives

A number of participants in the Detroit initiative remarked that until they took the digital literacy course they were unaware of how integral the Internet had become to doing tasks such as applying for jobs, paying utility bills, searching for medical information, and even keeping up with their children’s homework. A continued focus on the Internet’s reach into every part of their daily lives will be critical to maintaining participants’ engagement with the digital world.

Provide computers

While digital literacy is key to the success of the Detroit program, free or low-cost computers removes another barrier for the economically disadvantaged to access the Internet. Computers also offer an incentive to people to take digital literacy classes, which require a significant time commitment. Moreover, after the courses are finished, the computer provides continuity and further potential for more advanced digital educations, while providing access in the home for both the recipient as well as his or her family.

Remove Other Financial Barriers

In many cases, Internet providers require security deposits and a credit check before handing out equipment such as routers and modems. Such requirements mean that economically disadvantaged populations will not even be considered by an Internet provider. Paying for those upfront costs to Internet access needs to be a focus for nonprofits involved in providing Internet access.

Partner

Hundreds of residents in poor neighborhoods now enjoy free Internet access and the number is growing. This is a tribute to the partnership between the nonprofit Community Telecommunications Network (CTN) and commercial carrier Clearwire, which donated infrastructure and service. The larger partnership of Knight Foundation with CTN, Detroit community agencies and Clearwire led to a federal stimulus grant that provides training. This in turn led to the partnership with Blue Cross/Blue Shield which provided 1,700 residents with free computers.

Lifeline Rates Are Still Needed

While digital literacy brings more people online and keeps them there, paying for broadband access remains a barrier for some of the Detroit initiative’s participants. Comcast’s recent offering of $9.95 a month service to certain low-income households is a great start, but it needs to be expanded to all low-income households. And other providers need to step up to the challenge.

- Fara Warner
Technology and Tutoring Transform Lives at the Parkman Library

How an $866,000 Knight Foundation Grant is successfully bridging the digital and literacy divides in one Detroit neighborhood

By Fara Warner

On a hot sunny day in late June, the Technology, Literacy & Career Center at the historic Parkman Library on Detroit’s northwest side is quiet — save for the whirring of fans to keep the 84-year-old building cool — but that’s only because everyone in the center is so intensely focused on their work.

Khyril Smith, 19, sits at a gray office desk, struggling with a question on a reading comprehension problem as his tutor, Kerrie Trahan, tries to help.

James Thomas Jr., 76, is learning how to download an MP3 of an audiobook so that he can listen as he reads along in a memoir about a man who learned to read in his 80s. In addition to navigating new technologies, Thomas is learning to read after decades of making do with a fifth-grade education.

And then there’s Patricia Fuller, 46, full of intense energy, as she describes how she found out about the center while riding the bus.

‘Mr. Hill (a tutor at the center) stood up on the bus and told all of us about what was happening at the library,’ Fuller says. She was so intrigued that she got off the bus at the library with him. She began spending hours there every week studying for her high school equivalency exam and learning to use computers. “I’m so ready to take the test,” she says.

Funded in September 2009 by an $866,000 Knight Foundation grant to the city’s library system, the center offers access to computers, digital training and literacy tutors who can help residents with everything from finding jobs online to learning to improve their reading and writing skills. The center is giving the neighborhood a restored sense of community and hope in a city that is struggling to hold onto both.
Data provided for the grant by the library reports that 47 percent of adults in Detroit are functionally illiterate while only 25 percent graduate from high school. Seventy-five percent of displaced workers are literacy and technology challenged, with 22 percent of the population unemployed. The digital divide also is obvious: 40 percent of homes in Detroit do not have computers.

“Technology and literacy are so interwoven these days,” says Juliet Machie, the deputy director of the Detroit Public Library who oversees the Knight grant. “You won’t be able to get a job if you don’t have both.”

While the center is on track to fulfill the goals of the grant, getting to this stage and now sustaining the center as the city cuts library funding are challenges that Machie and her team struggle with everyday.

Construction delays pushed back the opening of the center by several months. “You wouldn’t believe the level of hazardous materials we encountered in the building,” Machie says. After almost a year in construction and building upgrades, the center finally opened in late January 2011. Knight Foundation gave Machie and her team another year to deploy the grant and meet their objectives.

Through June 2011, 860 one-on-one tutoring sessions had been held with 130 people, putting the center in reach of its goal of helping 250 people. Additionally, 5,638 people had used the computers and 3,030 had received computer assistance.

The technology and literacy center has helped save Parkman Library from the budget axe as Detroit closes libraries and limits programs. That means people like former auto worker Patricia Fuller, 46, can continue to learn the skills they need to find jobs.

“I know that this is going to open doors for me,” says Fuller, as she prepares to take the GED test.

(See below to read more about Fuller and two other students at the Knight-funded Technology, Literacy and Career Center at Parkman Library).
Khyril Smith, 19

Khyril Smith started coming to the library because his mother made him. Although he graduated from Highland Park High School, he says he didn’t have much direction for what to do next. But with the help of a Parkman center tutor, Smith is working toward taking the tests that will help him enter a work program at a community nonprofit. Now instead of his mom bringing him, he takes three buses to get to the library to study. "Now when I read, I understand it better. Everything is starting to get easier." And that’s because the hardest part is over. Smith says: “Getting here is the tough part, just taking that first step.”

James Thomas, Jr., 76

James Thomas Jr. began working on a farm when he was just nine years old. “I stopped school about the fifth grade. I’ve been working ever since,” he says. He tried to go back to school when he was in his late teens, but ended up in the tenth grade, a level where he knew he didn’t belong. “So I just stopped altogether,” he said. Sixty years later, after retiring as a bus driver for the Vista Headstart program, he walked into the Parkman Library with a plan. “I decided I would try to go to school and better my education. At least I can learn how to read.” His tutor also has introduced him to computers to help with his reading comprehension. “I hope one day I will have one (a computer) at my house,” Thomas says. “I think I could teach myself at home using the tapes.”

Patricia Fuller, 46

Patricia Fuller is honest about her life and choices. “I was always a good student in school, but I took my life in the wrong direction,” she says. Twenty-plus years later, the choice not to finish high school has put her at a severe disadvantage in a work world where a high school education is now mandatory. “I’m still unemployed and my benefits will run out in 13 more weeks,” she said. The former autoworker says that while she has had a few job offers, they have been too away from her home in Detroit. She doesn’t own a car and relies on public transportation. So she is focused on working with a tutor at the Parkman center so she can take her GED test. “I come in every Tuesday for two to three hours to work with him,” she says. “I know that this is going to open doors for me.”

Parkman Library Grant

As part of its effort to help low-income residents in Detroit cross the digital divide, Knight Foundation provided Detroit Public Library, $866,000 from October 2009 to October 2011, to build a Technology, Literacy & Career Center at the Parkman Branch to provide technology and training in basic literacy and life skills.