

2020



Back On Key

**A Collective Effort
to Shrink Its
Digital Divide**

Detroit, MI

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Introduction

Once a center for music production and automotive engineering, the City of Detroit has spent the last 10 years recovering from decades of depopulation, systemic divestment, and underdeveloped telecommunications infrastructure. Six years after it declared financial bankruptcy, municipal leaders, public school officials and grassroots activists are all working to develop programs that will improve internet access and facilitate adoption for all residents.

The City of Detroit should continue to consult with local nonprofits to support neighborhood-based digital ambassador programs.

- **Conducting a survey of small business owners, organizations, and community leaders could help municipal leaders understand the structural connectivity barriers and develop effective ways to communicate largely disconnected communities.**
- **Much like other cities, the public libraries are instrumental in workforce development for residents who lack affordable and reliable broadband.**
- **The Detroit Public School Community District and Public Library should collaborate on ways to access state and federal resources.**



- While 61.5% of Detroit households are estimated to have a cellular phone internet connection, only 47.9% of city households have broadband internet access at home through DSL, cable, or fiber optic connections.
- Approximately one-fifth (21.8%) of Detroit's households rely solely on their mobile phone devices to access the internet at home.
- 29.4% of households lack a broadband internet subscription of any kind.
- Connected Futures is a \$23 million initiative designed to provide 51,000 public school students with laptop computers and six months of long term evolution (LTE) internet data.
- Connect 313 is a City of Detroit led public-private partnership designed to provide residents with low-cost internet service and hardware solutions.

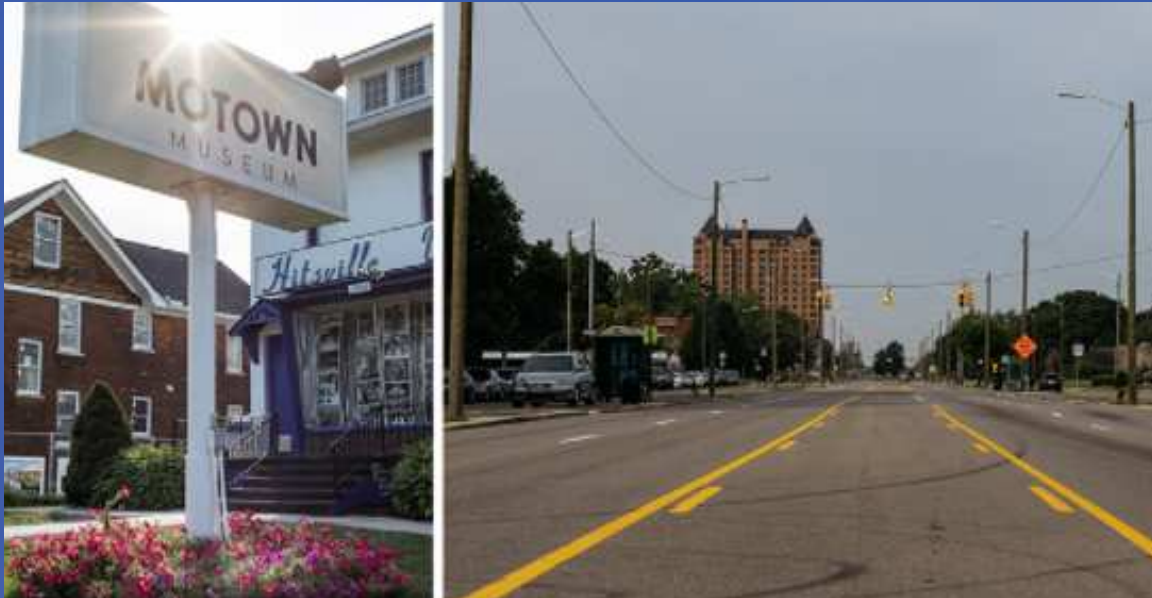
Key Facts



BACK ON KEY



Detroit's Collective Effort to Shrink Its Digital Divide



Detroit's Motown Hitsville USA Studio sits on West Grand Boulevard, a road that once connected the city's musicians to audiences around the world.

Photographed by Sara Faraj

If you listen closely enough and close your eyes, Detroit's wide and winding West Grand Boulevard still carries the sounds of the Supremes and Marvin Gaye.

In its heyday, Detroit's Motown Records was a powerhouse musical operation. Its unique network of songwriters, house instrumentalists, breathtaking vocalists, and business strategists garnered 79 top ten records on the Billboard Hot 100 charts from 1960 and 1969.

Networks similar to the one developed by the genius of Motown's founder, Berry Gordy Jr. are still highly sought-after by burgeoning music artists in the city. However, instead of a central hub such as the Hitsville USA studio where many of the world's most beloved records such as "Stop in the Name of Love" and "My Girl" were written and recorded, Detroit's artists are, today, scattered throughout a network of formal and informal recording studios. While music production hubs like the Detroit Institute of Music Education and Assemble Sound play an important role in the artistic development of numerous local artists, many current stars hailing from "the D" such as Tee Grizzley, Sada Baby, and Kash Doll have relied upon a far less centralized resource for their musical and professional development: high speed internet.

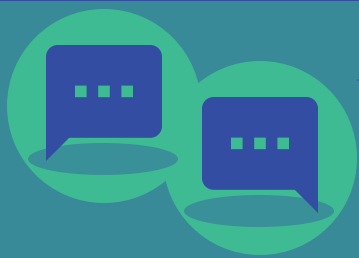
Techtown Detroit's managing director of Tech-based Entrepreneurship, Paul Riser Jr, launched the Motown Musicians Accelerator Program in 2019. The accelerator, led today by Suai Kee, works in partnership with the Capitol Music Group, the Motown Museum, Gener8tor, and Motown Records, helping "Detroit-based musicians take their careers to the next level through a "12-week accelerator program, a \$20,000 Budget grant, one-on-one coaching and mentorship, and industry networking". However, program components such as the accelerator's workshops and office hours, that were switched to virtual meeting spaces because of COVID-19, require participants to have a reliable broadband connection and a computer that allows them to utilize video streaming and conferencing, cloud server uploads and downloads, and more.



Motown Music Accelerator program participants have had to adjust to a virtual environment as they work through the program's artistic and professional development curriculum. This change requires artists to have reliable internet access as well as a reliable desktop device.

Image courtesy of the Motown Musicians Accelerator Program

"The difficulties for musicians presented by a lack of accessibility are huge given that the collaborative spirit of music is so often developed in close proximity with spontaneous energy – think about the jam sessions in the Snake Pit with Motown's Funk Brothers!" explains Riser. "Immense revenue streams are being lost due to so many live events coming to a screeching halt. The need to abruptly transition to a primarily virtual world, driven by the COVID lockdown, undoubtedly presents a different set of challenges for musicians."



Accessing Opportunity

IN DETROIT



Photo by Sara Faraj



Stef Rice like many Detroit artists has to navigate a web of financial and social hurdles in order to bolster his career. Internet connectivity has been one of these challenges for him.

Stef Rice, a lifelong Detroit resident and hip-hop artist, would love to participate in a program like the Motown Musicians Accelerator one day. However, in addition to honing his craft, developing the necessary relationships to Detroit's music ecosystem is a challenge for Rice, one that is exacerbated by COVID-19 and unreliable access to the internet.

Like 52.7% of Detroit residents, Rice and his mother rent their home.¹ Over the years, they have sometimes had to move once or twice within a given year due to rising rents or a need for better accommodations. Each move causes an interruption in his home internet connection and thus his work. In order to support his music aspirations, Rice previously worked games and special events at a new professional sports arena in Detroit's downtown. To get to his weekly work shifts at the arena, Stef rode the city's public bus downtown for roughly 40 minutes from his home on the city's Northwest side. He found, however, that his shifts at the arena were not a reliable source of income and frequently caused him some financial pressure as he tried to cover living expenses that include his monthly internet bill. Rice acknowledges that for some of his fellow artists, this \$35-40 expense is not manageable some months in combination with other expenses or periods of under- or unemployment.

Rice primarily relies on his phone to get online. However, unlike many Detroit residents, he also has access to two laptops at home that he can use when necessary. Now that he is working a different job as an audio technician, he has a little extra financial leeway to save and work on his music. Still, Rice is the exception in a city where almost one-third of residents do not have broadband of any kind. His story of sweat and sacrifice is a positive note within Detroit's overarching chord of immense digital inequity.

"I don't have any kids or any major responsibilities like that and so I am able to continue with my music while also working. However, for some people I know, bills start to pile up faster than the money does," explains Rice.





OFF THE CHARTS:

Detroit's High Levels of Digital Inequity

2018 American Community Survey (ACS) estimates show that of the city's 266,333 households, about 70% have an internet connection of some kind.² However, while 61.5% of Detroit households are estimated to have a cellular phone internet connection, only 47.9% of city households have broadband internet access at home through DSL, cable, or fiber-optic connections. Roughly one-fifth (21.8%) of Detroit's households are estimated to rely solely on their mobile phone devices for internet browsing at home. An estimated 29.4% of households in the city lack an internet subscription of any sort.

As explained by Rice, financial pressure and capability can affect a household's access to the internet. "While some people I know choose to go without the internet at home for a bit because they don't feel like they need it for the time being, others just aren't able to pay the bill some months."

This perspective on affordability is reflected by 2018 ACS estimates. For Detroit households that earn less than \$20,000 per year, 46.7% have no internet subscription, including mobile phone data plans. This number falls to 23% for households who earn between \$20,000 and \$75,000 and just 12.3% for households that earn more than \$75,000. In a city where basic broadband residential subscriptions typically range from \$25 to \$50 per month, internet access can seem to be affordable for all, despite a 36.4% poverty rate and a median household income of \$31,283. However, even with a low-income discount, the data shows that whether a Detroit household has the ability to purchase an internet subscription or not, about half of the city's homes lack a broadband connection that allows them to fully take advantage of the current creative service economy that requires some sort of desktop computer.³

Race-based social unrest, institutional redlining, and predatory lending practices have manufactured massive collapses of housing markets and neighborhoods. The current lack of reliable public services and accessible private-sector broadband connections in many of Detroit's neighborhoods stem from this history.





During the mid 20th century, Detroit Collegiate Preparatory, then known as Northwestern High School, was a hub for many of the city's young musical creatives, including Florence Ballard, Melvin Franklin, and Ray Parker.

Photos by Sara Faraj



Back on West Grand Boulevard, in the historical shadow of the Motown-Hitsville USA studio sits the Detroit Collegiate Preparatory (DCP) High School which for many Detroiters is still known by its former name, Northwestern High School. Northwestern produced Motown legends such as Melvin Franklin of the Temptations, bass guitar pioneer James Jamerson, Florence Ballard of the Supremes, Mary Wells (famous for her hit single, "My Guy"), and musician-songwriter Ray Parker, Jr.

After decades of underfunding, loss of student population, and management turmoil within the Detroit Public School system, the high schools which are currently in operation, such as Detroit Collegiate Preparatory, are working to once again produce scholars and professionals that greatly and positively impact the world.

However, the word-of-mouth networks that once provided local world-class professional opportunities to talented Northwestern High School students in the 1960s now operate, increasingly, on the internet. The street corners of record shops and performance venues have given way to Twitter and Soundcloud.

The roughly 450 Detroit Collegiate Preparatory students (a number down from its historic enrollment average of over 1000 students) attend school just two miles away from the array of opportunities available through professional and academic spaces such as the Motown Music Accelerator, TechTown Detroit, the College of Creative Studies, and Wayne State University. And yet, for Detroiters who lack the digital resources to access vital information online, these ecosystems can seem like a world away.



A Remix In Policy: COVID's Challenge to Educators

The emergence of the COVID-19 pandemic coupled with subsequent school and economic shutdowns quickly signaled to public officials in Detroit as well as to the State of Michigan that its digital divide could no longer be avoided. Detroit education officials, like their colleagues across the country, shifted teaching and learning to virtual environments. During this transition, local leaders realized that a disconnected and uninformed society was one that easily falls apart.

As of April 2020, Detroit Public Schools Community District Superintendent, Nikolai Vitti, estimated that among K-8 students, only 10% of families had access to an internet connected device that supported online learning.⁴

Eric Gaston, himself a music-lover, serves as Detroit Collegiate Prep's Dean of Culture. At the onset of the COVID-19 pandemic in March 2020, Dean Gaston and his colleagues found their students to be technologically unequipped for the demands of virtual learning.

"The majority of our students had no internet at home and their phones were not often a reliable tool for them being present for virtual classes" recalls Gaston. "We grew quite concerned very quickly."

The chaos caused by the new remote learning paradigm forced local leaders into action.

Urgency and collaboration gave birth to the Connected Futures initiative, allowing the Detroit Public School Community District (DPSCD) to gradually provide 51,000 students with laptop computers that are individually loaded with 6 months of long term evolution (LTE) internet data. This hardware and software distribution was made possible through a DPSCD \$23 million public private partnership with the DTE Energy Foundation, the Quicken Loans Community Fund, the Skillman Foundation, General Motors, and the Kellogg Foundation.

According to the school district, “during the six months following the initial deployment of tablets, the school district plans to partner with the City of Detroit and the social enterprise non-profit, Human IT, to help families sign up for low-cost subsidized internet services. Families will receive technical support on their new device, as well as navigation services that will help them take advantage of internet access.”⁵



"This initiative allows our students, including 50 music program participants, to continue with their education," explains Gaston. "I'm looking forward to our DCP internships to also be managed virtually—our students really look forward to those career-focused opportunities."

DPSCD's successful launch of Connected Futures and its distribution of desperately needed laptop computers is just one small step in Detroit's collective effort to close a persistent digital divide. Sustaining the progress made by initiatives like Connected Futures remains a top priority for school administrators. This, however, is only one of many solutions required to ensure that every student has equal access to digital opportunities.



A Solution in the Valley of the Divide



While the Main Detroit Library and six branch locations reopened in September 2020, the additional branches throughout the city remain closed due to COVID-19, further limiting internet access to many Detroit families.

Photo by Sara Faraj

Amidst new and attractive cross-sector committees and public-private partnerships, it can become easy to forget the quiet but wide-ranging impact made by the public library system on the lives of Detroit residents who lack access to a desktop computer or a home-based broadband subscription.

Like many Detroiters, Rice has relied many times on WiFi networks and Ethernet-connected computers at Detroit library branches to handle errands and tasks when he and his mother experienced interruptions in their internet service. "Sometimes the connection I can get at the library is even faster than the one I pay for at home," jokes Rice.

The reliability of the library comes from the dedication and determination of the system's staff. "We all see the need for internet connectivity," says Victor Ibegbu, the public library's Assistant Director for Information Systems. Victor and his team of information technology professionals have used their limited budget and personnel availability to increase the strength of their branch networks from 20 megabytes per site to 10 gigabytes per library branch.



"This series of network improvements was very expensive to implement. Without the FCC's E-Rate program, we would not have been able to afford these important upgrades" explains Ibegbu. "At every stage of our network upgrades, the level of user demand was higher than our supply ... Early on, I checked passerby mobile traffic and realized that if just a tenth of these mobile phone devices logged into our free and public network, that our WiFi network would become incredibly burdened. Today, our guests' prevalent use of affordable but limited mobile data plans sustains a high level of demand for our free wifi network."

Through the deep relationships developed with their network users, library branch staff members understand that being able to help patrons navigate the web is just as important as providing an access point for service. Residents who struggle with broadband access may also need digital literacy support.



The Detroit Public Library (DPL) system is a critical source of internet connectivity, for many Detroiters. Despite many permanent branch closures over the years, DPL staff has worked to provide access to their computers, as publicized in this Facebook Post.

Image Courtesy of Detroit Public Library

For the People, By the People: Equitable Broadband Networks



Like the library, democratic proximity to end-users is also an approach that is being utilized with success by the Detroit Community Technology Project's Equitable Internet Initiative (EII). This initiative "supports and develops historically marginalized residents to build and maintain neighborhood-governed internet infrastructure that fosters accessibility, consent, safety, and resilience."



The Detroit Community Technology Project's Equitable Internet Initiative has received national recognition and media coverage for their transformative and trailblazing work that currently provides hundreds of Detroit households with socially sustainable internet connectivity.

Photos are courtesy of the Detroit Community Technology Project.

The community-driven initiative has utilized its "Ten Equitable Working Principles" to develop a network of over 45 digital stewards who organize communities and build and maintain shared gigabit wireless networks. These networks ensure affordable, reliable connectivity for roughly 150 households across four different underserved communities, including the Northend and Highland Park which are home to some of Detroit Collegiate Preparatory's students. Much of EII's lens on the digital divide and its future is rooted in a critical analysis of its history.

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“Meaningful equitable development can't exist when roots of racial inequity remain unaddressed, particularly in majority Black Detroit,” argues Katie Hearn, the director of the Detroit Community Technology Project.

“Moving the needle toward digital equity takes investment from all levels – public, private, and grassroots – but the communities most impacted by the issue should be first to the table in generating solutions, not the last. We've learned again and again that accountable relationships between partners, as well as between partners and community members, are essential in the pursuit of digital justice. That means trust can't be left as a talking point.”

Hearn and other community-level organizers maintain a healthy dose of realism in their work to narrow the digital divide. Past experiences have taught them executive-level partnerships and private sector commitments have meaningful expiration dates that inevitably require end-user decision making.

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“The failures of past digital divide efforts made clear that sustainability is a tenant of success, and that it must also be defined beyond technology or funding models,” warns Hearn.

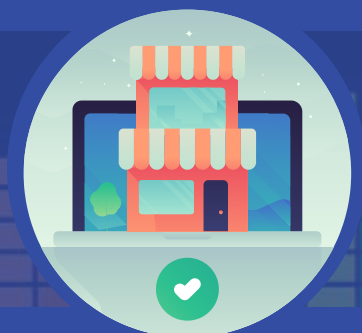
Getting On Beat

Local Efforts to Increase Broadband Access

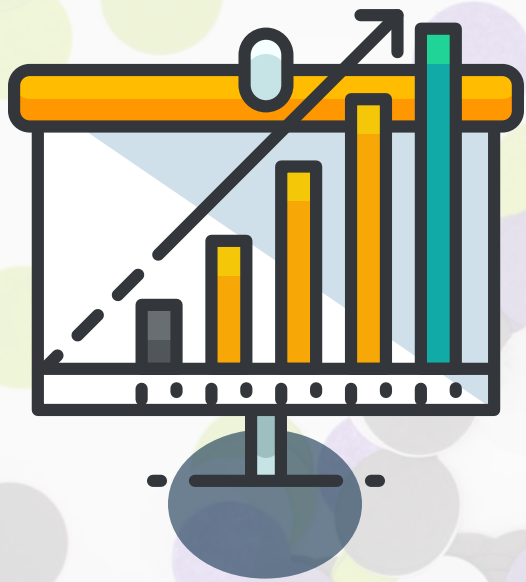


The City of Detroit launched a new initiative in 2019 entitled Connect 313.⁶ This initiative is leveraging private partnerships to not only provide all Detroit households with access to high speed broadband internet, but is also designing strategies to increase the rate of internet adoption through the distribution of computers, a network of supported community technology hubs and neighborhood-based technology ambassadors. Rocket Mortgage's \$1.4-million investment into Connect 313 is one notable example of the support being provided.⁷

The Detroit Department of Transportation (DDOT) in 2019 launched WiFi on a number of public buses after a 2018 rider survey showed that 84% of respondents would use WiFi on the bus if given access. Of the 1602 respondents, 47% relied primarily on their mobile phone data plans or the public library for internet access, while just 40% had high speed internet access at home.⁸ Public WiFi access points are particularly helpful for riders like Rice who rely, in part or solely, on their phones to access information on their way to appointments and to places of employment.

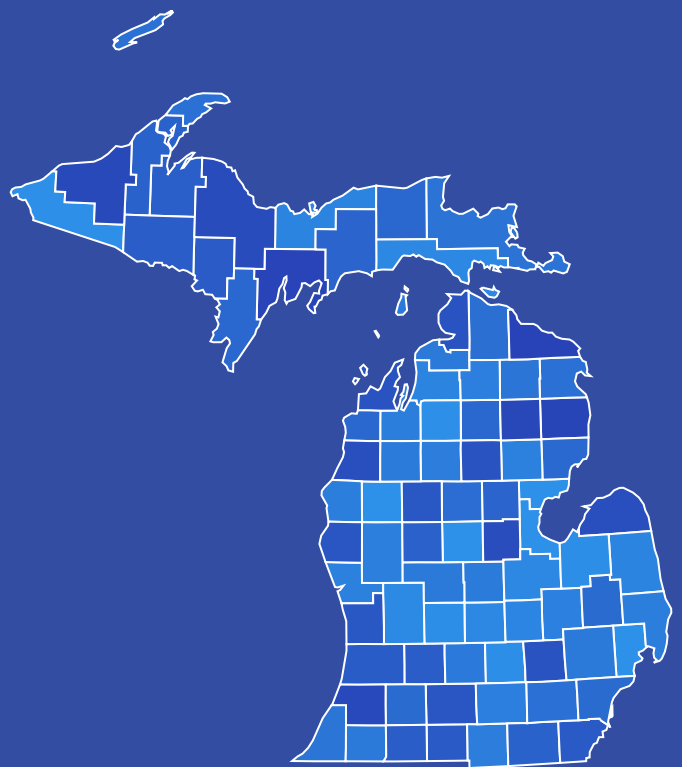


The City of Detroit's recent municipal budgeting for entities capable of increasing access to and adoption of broadband internet increased from 2015-2019.



- Detroit Public Library - 56% increase to \$32,442,000 (2020 forecast)
- Department of Transportation - 13% increase to 136,104,000 (2020 forecast)
- Parks and Recreation - 56% increase to \$23,992,769 in 2018
- Department of Information and Technology - 69% increase at \$29,581,325 (2020 forecast)

Up until March 2020, the City of Detroit's overall financial health was in a relatively promising position, having balanced its budget in 2017 after a crippling 2014 bankruptcy.⁹ However, the economic effects of COVID-19 has caused a \$154 million shortfall in 2020 and an anticipated budget deficit of \$348 million from 2020 through to 2021.¹⁰ Of the three City entities that directly affect the digital divide in Detroit, the public library's budget will hopefully maintain previous levels of funding due to its property tax millage-based funding.



State and National Progress Towards Increased Broadband Access



MI House Bill 5335 (2017) created the Michigan Infrastructure Council which will develop a multi-year program, work plan, budget, and funding recommendation for asset management. This will be presented by September 30th of each year to the governor and the legislature. Interestingly, the law does not allow for this council to “propose, recommend, or fund any government-owned broadband or telecommunications network to provide service to residential or commercial premises.”

MI House Bill 5266 (2020) instructs the state housing authority to conduct an annual analysis, in part, “of the number of authority-assisted or -financed developments and homes purchasing high-speed internet connections at substantially reduced rates as a direct result of loans from the Michigan broadband development authority.”



MI House Bill 5266 (2020) ensures that cooperative electric utilities give broadband providers, among others, “nondiscriminatory access to its poles upon just and reasonable rates, terms, and conditions for their attachments.” Any denial from a cooperative electric utility must be provided to a broadband provider on paper due to insufficient capacity, or reasons of safety, reliability, or generally applicable engineering standards.





MI House Bills 5673 and 5949 were introduced in 2020, respectively allowing for greater competition and transparency amongst broadband providers in the state and for townships to raise bonds and taxes to fund improvements to broadband infrastructure, amongst other local improvements.

Under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) fifteen million dollars was allocated to the Institute of Museum and Library Services in order to, in part, equip museums and libraries to respond to community needs resulting from the COVID-19 pandemic.¹¹ These funds can be put to use by eligible institutions to expand digital network access, purchase internet accessible devices, and provide technical support services to their communities.

The Library of Michigan allocated CARES Act grant funding to 294 public libraries, including the Detroit Public Library system.¹²

In addition, the proposed Health and Economic Recovery Omnibus Emergency Solutions Act (HEROES Act) that passed the House of Representatives in May 2020 would have provided 1.5 billion additional dollars for schools and libraries to prevent, prepare for, and respond to the COVID-19 pandemic.¹³ The funding from this bill, as long as it can be related to COVID prevention, preparation, and response efforts, could have been used to purchase internet-capable devices, internet service, and other digital services. The bill has not received a US Senate vote.

US Congressional Representative of Michigan's 8th district, Elissa Slotkin, in April 2020, endorsed infrastructure investments being included in future COVID-19 relief packages, stating that "a shovel-ready must-do project is broadband internet."¹⁴



No One Hit Wonder

Building a New Mystique

American writer, James Baldwin once posited “that we’re all connected and that those connections should be our glory and not our shame.”

In a city that the National Digital Inclusion Alliance ranked fourth in 2017 and ninth in 2018 on their list of “25 worst connected US Cities,” Detroit residents of all financial income levels, have been stitched together through a web of divestment, economic depression, poor infrastructure, and most recently, a health pandemic.¹⁵

However, the resulting digital deficit and divide has forced its corporate leaders, public sector officials, and community organizers to string together a series of successful programs, policies, and templates for increasing broadband access and adoption in the city of Detroit. These emerging models can be adapted in and for similarly positioned cities.

Detroit’s ability to reposition its neighborhood residents, while also leveraging additional taxpayer and corporate funding, has allowed local leaders to reboot the city’s tradition of innovation and creativity. Today, democratic, equitable, inclusive, and innovative public policy has a chance to be Detroit’s new legacy and hallmark, as the city’s digital divide slowly erodes.

Recommendations



The Detroit Public School Community District and Detroit Public Library to collaborate and apply for federal E-Rate and Lifeline funding that supports new or existing home-based virtual learning initiatives.



The Detroit Public Library system to receive additional funding to extend its standard library hours and purchase additional hotspot devices and laptops for residents to borrow from each of its branch locations.



Connect 313 to partner with the Equitable Internet Initiative and develop a neighborhood-based network of digital ambassadors who provide expertise and implementation support to community broadband initiatives. These ambassadors could also staff a hotline that connects individual residents with broadband subscriptions and hardware.



Connect 313 to design a survey, in partnership with other business incubation entities, that identifies how various segments of Detroit-based business owners and nonprofit leaders currently leverage wifi technology.



The Detroit Public Library consults with public library systems in other cities to develop a plan for producing and publicizing professional development and digital literacy video tutorials and courses.

Standard Broadband Subscription Rates in Detroit



AT&T

\$59.99/month

- ↓100 Mbps & ↑20 Mbps
- 4+ users
- HD and 4K streaming
- Smart-home friendly



Xfinity

\$25/month

- 25 Mbps*
- Up to 1-2 devices at a time



Viasat

\$50/month

- ↓12 Mbps & ↑3 Mbps
- 1-2 users
- Basic browsing, email use
- SD video streaming on one device



Hughes Net

\$59.99/month

- ↓25 Mbps & ↑3 Mbps
- 2-4 users
- Gaming, live streaming, Alexa
- HD streaming on multiple devices



Rocket Fiber

\$70/month

- 1Gbps

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