

The Digital Equity Action Research (DEAR) Fellowship:

A Participatory Action Research Project

Published by the Benton Institute for Broadband & Society

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This report is a collaboration of the Benton Institute for Broadband & Society, Black Brilliance Research Project, and the Community Informatics Lab at Simmons University.

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The **Robert W. Deutsch Foundation** partnered on the project to underwrite the participation of Baltimore's Village Learning Place and its DEAR Fellow.

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Introduction

by Shaun Glaze, Colin Rhinesmith, Chris Webb, and Sabrina Roach

In November 2021, the Benton Institute for Broadband & Society, Community Informatics Lab at Simmons University, and Black Brilliance Research Project (BBR) launched the six-city Digital Equity Action Research (DEAR) Fellowship. The DEAR Fellowship helped young adults, ages 19–24, learn participatory action research skills to examine and address the root causes of digital inequities in their communities.

Participatory Action Research (PAR) is different from traditional research paradigms. PAR should be used to both investigate and change—shaping the design of new initiatives, informing the execution of campaigns, and increasing the understanding of issues.

TRADITIONAL RESEARCH	PARTICIPATORY ACTION RESEARCH
Change is not necessarily part of the process of doing research; change might happen later, but it isn't required	Change is an important part of the process, including reflecting on the impact of that change
Tends to be more linear	Tends to be more iterative
Researchers are usually academics	Researchers are usually community members outside of academia
Community members may provide data but rarely analyze the data themselves	Community members analyze the data, develop insights, and sometimes create reports
Academic expertise is prioritized	Community expertise is prioritized
Tends to emphasize theory	Tends to emphasize practice
Tends to test existing ideas	Tends to get new answers quickly

Both approaches can use a mix of numbers, stories, maps, and other data.
Participatory Action Research is more likely to include an integration of artistic approaches, like visual research, story mapping, and theater.

PAR “centers the wisdom, leadership, and expertise of those closest to the issues,” said Shaun Glaze, research lead and director of Black Brilliance Research. “Doing this work well means disrupting systems of oppression and creating spaces where communities can explore—and create—their own solutions. This involves listening to those closest to the issues, not just listening to the problems created by digital injustice, but co-creating the solutions that Black and Brown people need to thrive.”

As part of this initiative, one organization in each of the six participating cities—Baltimore; Boston; Cleveland; Long Beach, California; San Antonio; and Seattle—took part in the fellowship and hosted one DEAR Fellow.

Host organizations included:

[Black Brilliance Research Project](#) is a Black, queer-led community-research collaborative dedicated to changing the material conditions of the lives of Black, Indigenous, and People of Color communities.

[Community Informatics Lab](#) at Simmons University engages in digital inclusion research, practice, and policy to promote socially just and equitable communities.

[East Cleveland Public Library](#) provides life-enhancing, consciousness-raising library services and cultural activities that reflect the needs of the East Cleveland community and the patrons of the institution.

[Long Beach Forward](#) is focused on creating a healthy Long Beach with low-income communities of color by building community knowledge, leadership, and power.

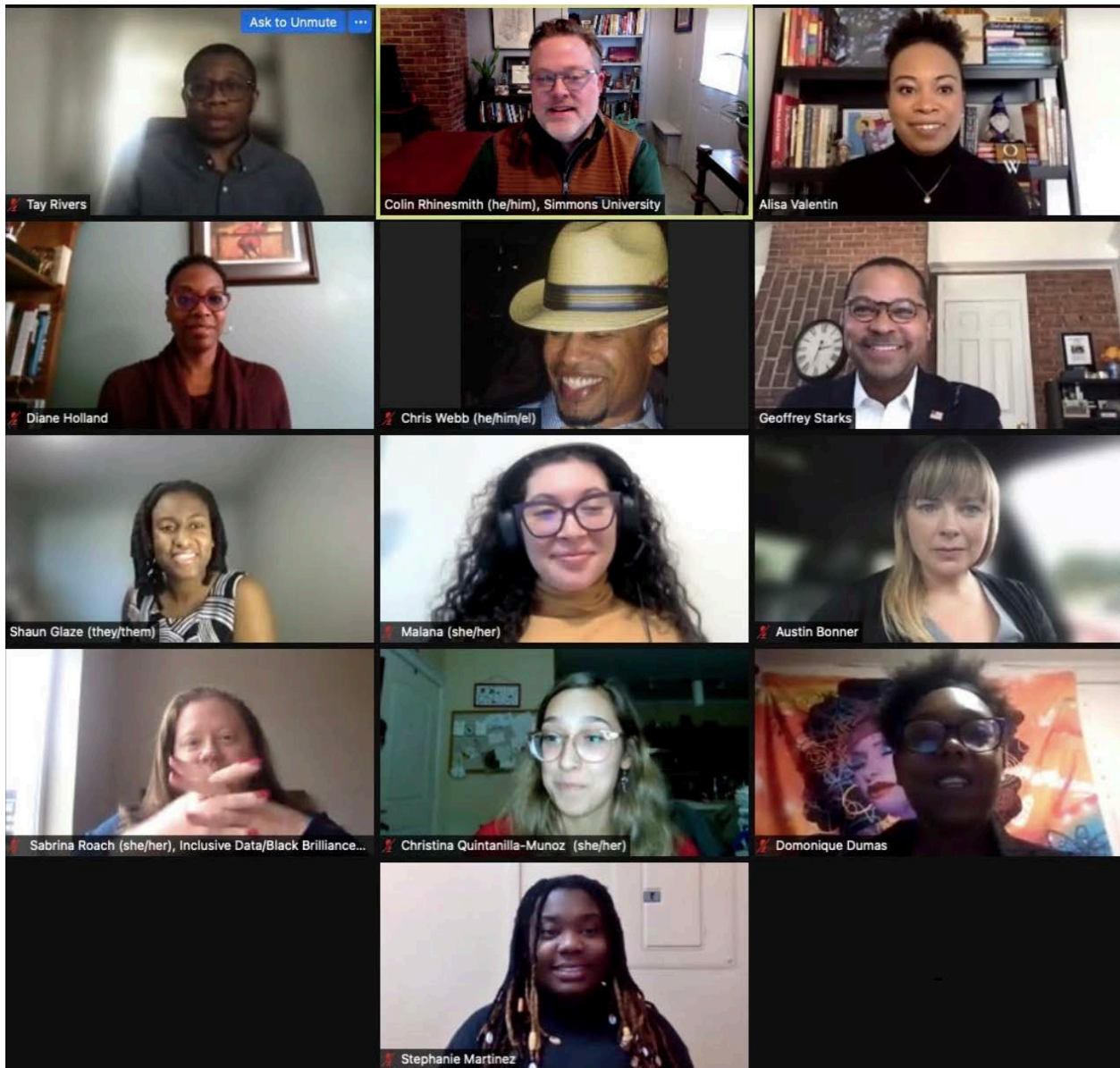
[San Antonio Digital Inclusion Alliance](#) fosters San Antonio's digital ecosystem by facilitating the collaboration of organizations providing digital inclusion services and promoting the democratization of digital inclusion initiatives within the community.

[Village Learning Place](#) is an independent nonprofit library that houses educational programs, enrichment opportunities, and informational resources for Charles Village and throughout Baltimore City. It is Village Learning Place's belief that libraries not only are a repository for books but also serve as community centers focused on the personal and professional growth of their patrons.

The fellows and their host organizations listed above received a stipend for their work on the project over a two-month period from the Benton Institute for Broadband & Society's Opportunity Fund. The Robert W. Deutsch Foundation partnered on the project to underwrite the participation of Baltimore's Village Learning Place and its DEAR Fellow.

The end goal of the fellowship was to increase the skills and capacity of the DEAR Fellows and their communities and to identify and address the root causes of digital inequities while learning from peers around the United States. The fellows learned new participatory action research skills, an approach that brings together advocacy and research methods to create change with those closest to the problems in community settings.

The fellows also had an opportunity to meet with Federal Communications Commissioner Geoffrey Starks and his staff to discuss some of the pressing issues affecting their communities and present their research direction. FCC staff noted that the fellows' insights resonated with the complexities of the FCC's work to promote connectivity and ensure a robust and competitive market. Topics ranged from perspectives on existing structural inequities to thoughts on data collection and even insights on new developments with the World Wide Web.



The essays that follow are written by the DEAR Fellows in collaboration with their host organizations. Each essay focuses on digital equity issues that are important to them and their communities. In the pages that follow, we see their vision of what digital justice looks like in each of their communities.

Shaun Glaze

Research Lead and Director, Black Brilliance Research Project

Shaun is a participatory action researcher with over ten years of experience in collaborative research, facilitation, and training. Shaun has experience managing research projects for multidisciplinary collaborations across public, nonprofit, and private sectors. Shaun has worked with teams and independently to implement qualitative, quantitative, and mixed-methods analyses. Much of Shaun's work has been focused on diversity, inclusion, equity, and social justice. Shaun was one of the designers and facilitators of the curriculum for this inaugural DEAR Fellowship.

Colin Rhinesmith

Founder and Director, Digital Equity Research Center, Metropolitan New York Library Council

Colin is the founder and director of the Digital Equity Research Center at the Metropolitan New York Library Council and a Senior Fellow at the Benton Institute for Broadband & Society. He is also a member of the Scholars Council at the UCLA Center for Critical Internet Inquiry and co-editor-in-chief of The Journal of Community Informatics. Previously, Dr. Rhinesmith was an associate professor in the School of Library and Information Science, where he was the director of the Community Informatics Lab, and the Provost's Faculty Fellow for Scholarship and Research at Simmons University. He has been a Google Policy Fellow and an Adjunct Research Fellow with New America's Open Technology Institute in Washington, D.C., and a faculty associate with the Berkman Klein Center for Internet & Society at Harvard University. Dr. Rhinesmith received his Ph.D. in Library and Information Science from the University of Illinois at Urbana-Champaign, where he was a U.S. Institute of Museum and Library Services Information in Society Fellow, a researcher with the Center for People & Infrastructures, and a Research Scholar with the Center for Digital Inclusion.

Chris Webb

Internet Access and Digital Equity Research Team Leader, Black Brilliance Research Project

Chris is a consultant, educator, and business owner. He consults in a wide variety of operational and specialized areas, including data analysis, systems analysis and management, digital strategy, and intellectual property management. He has more than 15 years' experience implementing digital and information literacy programs in the United States and abroad. Chris leads the Internet Access and Digital Equity research team for the Black Brilliance Research Project and is Co-PI and Senior Personnel on several National Science Foundation and other research grants. He is also a faculty member at Seattle Central College in the STEM + B department and teaches software development and tech industry courses.

Sabrina Roach

Digital Equity Advisor

Sabrina brings more than two decades of organizing for media and technology that serves all of us. As a Director of Strategic Partnerships at Inclusive Date, she supported the Black Brilliance Research Project. While at the National Digital Inclusion Alliance, Sabrina facilitated development of the Digital Navigator model. Working with Washington State legislators, she helped pass the first Washington State Digital Equity Act in 2022. In 2015, she initiated the Upgrade Seattle campaign for municipal broadband and organized support for ten new Low Power FM radio stations. Sabrina has served on a mix of regional and national boards. Prior to that, she worked at public and community radio stations while organizing for media justice and policy reform.

Cultivating Digital Equity in San Antonio Through a Liberation Framework

by Christina Quintanilla-Muñoz

My Digital Equity Journey

Almost two years ago, the COVID pandemic triggered a cascade of health crises and institutional closures which meant, for many of us, job loss, housing, and food insecurity—and hopelessness about the future. For many of us, our worlds spun off their axes into a chaotic mess of uncertainty and grief. Two semesters into my graduate school program and earning a part-time wage, I worried if I could weather this terrifying new time. But as life slowly settled into a new normal of social distancing and attending virtual classes, the massive systemic change swirling around me begged that I recalibrate my purpose for pursuing a higher education. I felt inspired to learn how my research skills could benefit young students and their families, so I ventured into the world of education policy.

In poking around for local employment opportunities related to education policy and community advocacy, I stumbled upon a research and evaluation internship opportunity with the [Intercultural Development Research Association \(IDRA\)](#)—a nonprofit organization based in San Antonio, Texas, that strives to achieve education justice for all K-12 students through strengthening and transforming strong public schools that prepare students to access higher education and succeed in college.

Following my internship and during the 87th Texas legislative session, IDRA invited me to serve as one of five fellows in its [Education Policy Fellows Program](#). This is when I discovered my passion for digital equity. During the program, my research and policy work focused heavily on urging Texas policymakers to pass legislation aimed at increasing schools' engagement with students and their families during the COVID pandemic. To bridge the digital divide in Texas, we advised lawmakers to employ tools such as asset-based, trauma-informed academic and wellness support services, robust school district family engagement plans, and sustainable investments in broadband infrastructure.

My involvement in digital equity advocacy quickly matured from interest to direct action throughout my education policy fellowship experience, particularly through my collaborative partnership with Munirih Santiago Jester, co-chair of the [Digital Inclusion Alliance of San Antonio \(DIASA\)](#) and programs manager of the [National Digital Inclusion Alliance \(NDIA\)](#), which was also my sponsor for the Digital Equity Action Research (DEAR) Fellowship. Our partnership embedded me in the vast San Antonio digital ecosystem. My journey took a turn into the advocacy arena, and my connection with Munirih and DIASA led to my participation in the DEAR Fellowship program.

How the San Antonio Digital Inclusion Ecosystem Is Cultivating Digital Justice

During my DEAR Fellowship, I had the opportunity to explore the rich history of digital inclusion in San Antonio from historical, grassroots, community-power-building initiatives to the most recent

implementation of the San Antonio and Greater Bexar County [Community Digital Equity Plan and Roadmap](#) launched in 2021 by [SA Digital Connects](#), a public-private-community collaboration. The digital equity roadmap outlines the goal of bridging the digital divide for more than 130,000 households across San Antonio and Bexar County, which includes the expansion of at-home fiber connectivity, access to devices, and extension of digital literacy education, particularly to senior residents and residents in low-income areas. This comprehensive, strategic plan represents years of cross-collaborative innovation and investment in digital inclusion efforts by more than 140 organizations, businesses, agencies, K-12 and higher education institutions, industry experts, and community partners.

Exploring the History of San Antonio's Digital Equity Ecosystem!

With the City of San Antonio (COSA) poised to allocate \$6.9 million in American Rescue Plan Act (ARPA) funds toward digital access and literacy for residents, community organizations and other digital equity advocates are re-engaging to ensure San Antonio gets “more bang for her buck.” COSA and Bexar County have demonstrated steadfast support for the digital equity plan, the roadmap, and the work led by community organizations to build resiliency among residents most impacted by the digital divide.

DIASA is leading the charge in coordinating united efforts among local government, private partners, and community organizations embedded in the vast San Antonio digital inclusion ecosystem. The coalition keenly recognizes that elevating and emboldening community organizations that have been leading digital inclusion efforts for years is critical in cultivating authentic trust among all stakeholders and, most importantly, in ensuring community

HISTORICAL DIGITAL INCLUSION INITIATIVES IN

SAN ANTONIO

Celebrate the Recent History of Digital Inclusion Led by Grass-Roots Community Organizations in San Antonio



2014

The City Council and CPS Energy signed an agreement in the fall of 2014 permitting the city to utilize a portion of the fiber in “perpetuity.”

2015

July: San Antonio is one of 28 communities selected for the Department of Housing and Urban Development (HUD) **ConnectHome** program.

September: VIA Metropolitan Transit implements free Wi-Fi in all buses and transit centers.

Goodwill Electronics Recovery Program launches providing refurbished computer devices for families receiving low incomes.

August: City of San Antonio proposes budget to expand free Wi-Fi service in city-owned public parks.

July: The Federal Reserve Bank (FRB) publishes “Closing the Digital Divide: A Framework for Meeting CRA Obligations;” FRB begins hosting convening’s and training programs for banks, nonprofits, local governments, and anchor institutions.

2017

March: Digital Inclusion Summit dramatically increases community awareness of the digital divide; DIASA is announced during the Summit.

May: Digital Inclusion VISTA coordinates efforts of DIASA

2019

COSA Office of Innovation kicks off **Digital Inclusion Survey and Assessment** in partnership with the University of Texas at San Antonio (UTSA) to assess resident access to broadband, devices, and digital skills development

June 2020: Collaborative citywide **Connected Beyond the Classroom Initiative** launches to expand fiber capability and student access in San Antonio

SAPL hosts NTEEN Fellow dedicated to researching knowledge gaps of adult education

PRESENT

February/March: DIASA hosts first Community Events of 2022

San Antonio Mayor Ivy Taylor creates the **D12 Initiative**.

Bexar County begins planning for **Upgrade SA now digitalBexar** project.

2016

The **Digital Inclusion Alliance of San Antonio (DIASA)** is established as “a public and private coalition dedicated to advancing digital inclusion opportunities to foster educational attainment, competitive employment, financial prosperity, and greater community engagement for all San Antonio residents.”

NTEN Google Fellows are assigned to work in three San Antonio organizations to increase digital inclusion for the community.

DIASA holds first Alliance meeting with over 30 members in attendance

June: ConnectHome passport program is announced as a partnership between San Antonio Housing Authority (SAHA) and San Antonio Libraries (SAPL)

July: South San ISD and San Antonio ISD awarded **Sprint 1Million Project**

September: ConnectHome holds convening partner meeting

2018

DIASA hosts “Connect Todos: Digital Inclusion and Upward Mobility,” a digital inclusion summit convening city officials, business leaders, school district and university representatives, and nonprofit leaders

2020-21

September 2021: SA Digital Connects launches **San Antonio and Greater Bexar County Community Digital Equity Plan and Roadmap** to address barriers to broadband access, engaging over 140 community entities.

November 2021: DIASA hosts **Digital Equity Action Research (DEAR) Fellow** through the DEAR Fellowship launched by The Benton Institute for Broadband & Society, Community Informatics Lab at Simmons University, and Black Brilliance Research Project (BBR).



voice is centered. With increasing interest among community organizations in digital inclusion initiatives and urgency to address needs, forging connections between stakeholders is key. DIASA recognizes that joint efforts optimize individual contributions and organizational assets to benefit the whole digital ecosystem in achieving digital equity.

Reimagining Digital Equity in San Antonio Within a Liberation Framework

This six-week fellowship program offered me the chance to sharpen my technical skills from interviewing, visualizing data, and asset mapping. Most importantly, our conversations permitted me the space to reimagine how digital equity in San Antonio could be achieved through a liberation framework that emphasizes the community's key role in achieving digital justice.

While DIASA has traditionally followed a grassroots approach in promoting digital inclusion advocacy, through our collaborative network the coalition has recently realigned its goals to promote digital inclusion in San Antonio through community education and activation at the grassroots level.

As digital equity advocates from DIASA have exemplified for years, authentic community engagement starts with responsible community care and transforming how we activate community members. Responsible community care can be an assessment of how we allocate resources for boosting digital inclusion, a unification of parallel efforts, and a focus on changing how we advocate for these resources to serve us at a higher level than short-term “Band-Aid” responses. Responsible community care ensures our most vulnerable community members are served first.

At a fundamental level, community care can operate through a liberation framework that aims to cultivate a dynamic, interconnected, and resilient ecosystem. A digitally inclusive liberation framework seeks to achieve three main goals:

1. Improve access to knowledge and education through community power tools that democratize the knowledge of digital inclusion within our community.
2. Rather than fixating on the problem, focus on the strengths within a community to advance innovative solutions led by community members.
3. Activate the community through digital inclusion initiatives designed to promote greater control of and autonomy within the shared digital ecosystem.

Community members are valuable experts with the potential to become true changemakers as they are closer to the issues and solutions than anyone else. Education is the most impactful tool in empowering historically disenfranchised communities to confront systemic inequities and develop innovative solutions for these challenges.

In line with a new strategic plan, DIASA strives to target, connect, and organize directly with community members and local digital inclusion partners who prioritize vulnerable communities to increase their ownership and accountability within the San Antonio digital equity ecosystem. As part of the coalition's redevelopment, DIASA aims to activate community partners through coordination of professional development and digital skills training opportunities that serve to increase collective knowledge among community members, ultimately democratizing knowledge of digital inclusion in San Antonio.

My DEAR Fellowship has been so much more than an important stepping-stone toward achieving my professional and personal dreams of becoming a digital equity scholar and expert. It is a wondrous reminder that—as one of my favorite authors, Paulo Coelho, wrote about—when your heart longs for something and you follow with unwavering trust the direction your journey leads you toward, the universe indeed conspires to help you realize that desire.

I acknowledge with deep gratitude:

Colin Rhinesmith of the Benton Institute for Broadband & Society, Shaun Glaze and Chris Webb of Black Brilliance Research Project, Simmons University, and Sabrina Roach of Inclusive Data LLC for curating this fellowship program and equipping me with the community research and engagement skills necessary for catalyzing meaningful change in my community.

Munirih Santiago Jester and the DIASA coalition for challenging me to think deeply about how we may incorporate aspects of a liberation framework in the structure of our organization to ensure our advocacy is community centered and powered.

IDRA for supporting me throughout my fellowship and education journeys and encouraging me to explore the interconnection between education and digital equity.

My San Antonio community for inspiring me every day to think and act boldly.

Resources

Amelinckx, A. (2018, August 15). Allied Against Inequity. American Libraries Magazine. Retrieved January 25, 2022, from <https://americanlibrariesmagazine.org/2018/09/04/allied-against-inequity-digital-inclusion/>

Barton, J. (2016, December). Closing the Digital Divide: A Framework for Meeting CRA Obligations. Retrieved January 25, 2022, from <https://www.dallasfed.org/en/cd/-/media/documents/cd/pubs/digitaldivide.pdf>

City of Casey Digital Equity Framework. Casey Conversations. (2021, October). Retrieved January 25, 2022, from <https://conversations.casey.vic.gov.au/smartcasey/digital-equity-framework>

McNeel, B. (2020, July 14). Closing San Antonio's digital divide: In the city's poorest and most segregated neighborhoods, public school students to get in-home internet. Closing San Antonio's Digital Divide: In the City's Poorest and Most Segregated Neighborhoods, Public School Students to Get In-Home Internet. Retrieved January 25, 2022, from <https://www.the74million.org/article/closing-san-antonios-digital-divide-in-the-citys-poorest-and-most-segregated-neighborhoods-public-school-students-to-get-in-home-internet/>

Mendoza-Moyers, D. (2020, June 12). How San Antonio plans to tackle the digital divide, expand broadband internet. News. Retrieved January 25, 2022, from <https://www.expressnews.com/business/local/article/How-San-Antonio-plans-to-tackle-the-digital-15336110.php>

Rhinesmith, C., & Kennedy, S. (2020). "Growing Healthy Digital Equity Ecosystems During COVID-19 and Beyond." Evanston, IL: Benton Institute for Broadband & Society, October 2020. <http://benton.org/digital-equity-ecosystems-report>

Royall, E. (2017, October 30). Tierrabyte: Addressing San Antonio's digital divide. San Antonio Report. Retrieved January 25, 2022, from <https://sanantonioreport.org/tierrabyte-addressing-san-antonios-digital-divide/>

Royall, E. (2017, September 19). Tierrabyte: Democratizing San Antonio's Data. San Antonio Report. Retrieved January 25, 2022, from <https://sanantonioreport.org/tierrabyte-democratizing-san-antonios-data/>

Safir, S., Dugan, J., & Wilson, C. (2021). Street Data: A Next-Generation Model for Equity, Pedagogy, and School Transformation. Corwin.



Christina Quintanilla-Muñoz is a research analyst at the Intercultural Development Research Association (IDRA), a nonprofit organization based in San Antonio, Texas, whose mission is to achieve equal educational opportunity for every child through strong public schools that prepare all students to access and succeed in college. Christina is also a doctoral student in the Department of Demography in the College for Health, Community and Policy at The University of Texas at San Antonio. Through her digital equity research and advocacy work at IDRA and in her academic program, Ms. Muñoz aims to promote equitable access to digital technologies and information, particularly among vulnerable populations. Specifically, she hopes to increase community access to data on the systemic racial and socioeconomic inequities that undergird the digital divide and help shape policies through her research that would expand access to broadband internet in Texas.

What Maps of Boston Can Tell Us About How to Fix the Broadband Adoption Gap

by Malana Krongelb

At first glance, one could be forgiven for thinking that Boston has bridged the digital divide. Compared with many rural areas across the country, the city has near-complete broadband availability. Nowhere in Boston are advertised [speeds](#) below the Federal Communications Commission (FCC) benchmark of 25 Mbps download/3 Mbps upload—and much of the city exceeds the 100 Mbps symmetrical that many on both sides of the [aisle](#) have called for. Boston is known for its world-class universities, medical centers, and technological innovation. Many neighborhoods have access to four or five different options for broadband.

Still, in 2021 [32,000 homes](#) in Boston were without any type of internet access and an additional 40,000-plus [relied on mobile access](#) alone. So what is creating this gap between availability on the one hand and accessibility on the other?

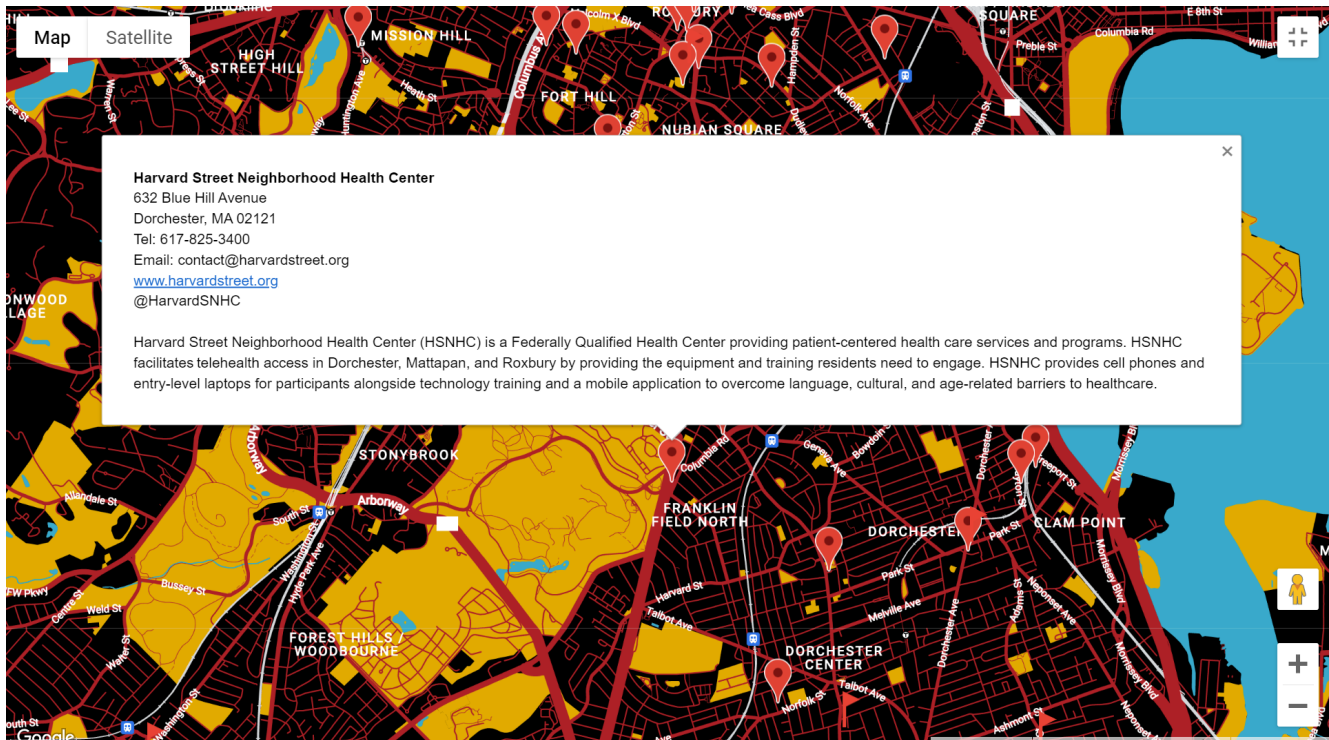
With \$65 billion in funding for broadband included in the [federal infrastructure law](#), broadband is finally being recognized as an essential infrastructure. However, in order to avoid past mistakes, we must recognize the major force that shaped development in American cities during the 20th century and beyond: redlining.

The Boston area is no newcomer to racially motivated housing discrimination. The [first racially restrictive covenant](#) ever included in a property deed took place in Brookline (which borders six Boston neighborhoods) in 1855. The process was [commonplace by the 1930s](#).

Take, for example, my neighborhood of East Boston, a largely immigrant neighborhood both historically and in the present. Redlining maps from the 1930s described it as having a “[threatening encroachment of lower-class people](#).” [Approximately 25 percent of households](#) in this East Boston neighborhood today do not subscribe to home broadband. The [median household income is \\$26,842](#), with white households’ median income more than four times that of Black households. This figure is likely to widen as the area gentrifies.

Similarly, federal agencies gave the area that includes present-day Jamaica Plain a “D” grade, meaning it was “hazardous.” Why? because of things like the “[infiltration of foreign\[ers\]](#)” and that there were Negroes “predominating” at 5 percent of the area’s population. Today, that area has an [average household income of \\$16,226](#), and [38.3 percent of households](#) have no internet connection. In order to understand how this history shapes the present with regard to digital access, scholars such as [Safiya Noble](#), [Chris Gilliard](#), and others have looked deeply into the various forms of digital discrimination beyond the simple availability of technology. And [digital redlining](#) as one form of digital discrimination holds as true in many other metropolitan areas as it does in Boston.

However, just as in food deserts there are often local fruit stands that go unaccounted for, digital deserts often have oases that provide critical resources: grassroots community organizations, libraries serving as technology labs and tutoring centers, city-backed [free Wi-Fi](#) locations, community colleges, Wi-Fi access in public transportation, and more. You can see a map of Boston-based digital equity organizations below. The map is in colors that [reflect the city](#) (yellow and light blue for the Boston Marathon, red for the Red Sox) and includes both organizations that focus exclusively on digital equity and those that include it as part of their broader mission. Ideally, a map like this could also be used as an advertising and networking tool, helping to connect organizations together and users to services.



[Boston Digital Inclusion Organizations](#)

These organizations, perhaps unsurprisingly, are concentrated in areas that 1) have been historically redlined, 2) are digitally redlined, and 3) experience lower broadband adoption. In many ways, this is positive—Boston’s grassroots organizations addressing the digital divide are located where people need them most.

However, the map also shows that despite these organizations’ best efforts, broadband adoption gaps persist. Even truly innovative and successful programs like [Tech Goes Home](#)—which offers a free laptop and a free 12-month internet service subscription to income-eligible participants—may struggle to reach large portions of the most vulnerable target populations. People who are disabled, are experiencing poverty, and/or are [time-poor](#), for example, may struggle to afford broadband or [attend these types of programs](#). These same people are often in the direst need of an at-home broadband connection. Digital equity issues remain difficult for nonprofits and community organizations to address without full city buy-in.

A Path Forward

That buy-in is on the horizon. Recent investment in these grassroots organizations through the [Digital Equity Fund](#) represents a positive step forward for digital justice in Boston. Then-Mayor Kim Janey commissioned the city's first [State of Broadband Equity report](#) just last year. Mayor Michelle Wu has recommended transitioning to [municipal-owned broadband](#) after including a [digital equity plan](#) in her campaign.

Still, as the pandemic continues to rage on, more than 70,000 Boston households are in need of broadband access now. The City of Boston could address this need with grants to support [community-owned wireless networks](#), beginning in marginalized and historically redlined communities like East Boston, Jamaica Plain, Roxbury, and Mattapan. Such networks could provide digitally redlined neighborhoods with affordable (and therefore accessible) at-home internet access sooner rather than later.

Services offered over community-run networks are often [cheaper and faster](#) than those offered by their big telecom counterparts. They have the added benefit of promoting community investment in their success and encouraging reluctant adopters through lower pricing, [word of mouth](#), and local involvement. By working alongside grassroots organizations and community members, Boston can utilize the [expertise of people](#) at a hyper-local level to implement such a program. Similar community-run, mesh/point-to-point network programs have been accomplished in places like [New York City](#) and [Detroit](#). The Detroit Community Technology Project offers a [wealth of resources](#) for other communities to get started on grassroots community wireless campaigns. These networks also tend to be resilient to natural disasters—all the more crucial when [redlined communities](#) bear an [excess burden](#) related to global warming.

At this critical juncture when the FCC will be examining [digital discrimination](#), the City of Boston's decisions about investment in redlined communities and the organizations that serve them will make or break the future of broadband adoption. It could be easy to repeat past habits, by which Black and Brown neighborhood infrastructures are often the first broken and the last fixed. That would simply maintain the status quo. If the city government instead chooses to expand programming so that it acknowledges the historical roots of digital forms of discrimination, that wouldn't just address broadband adoption. That would be justice at work.



Malana Krongelb is a librarian currently based in Boston, Massachusetts. She is passionate about digital equity and its connection to racial, gender, economic, and disability justice. Feel free to read more (or reach out!) at malanakrongelb.com.

Digital Equity in Baltimore

by Tay Rivers

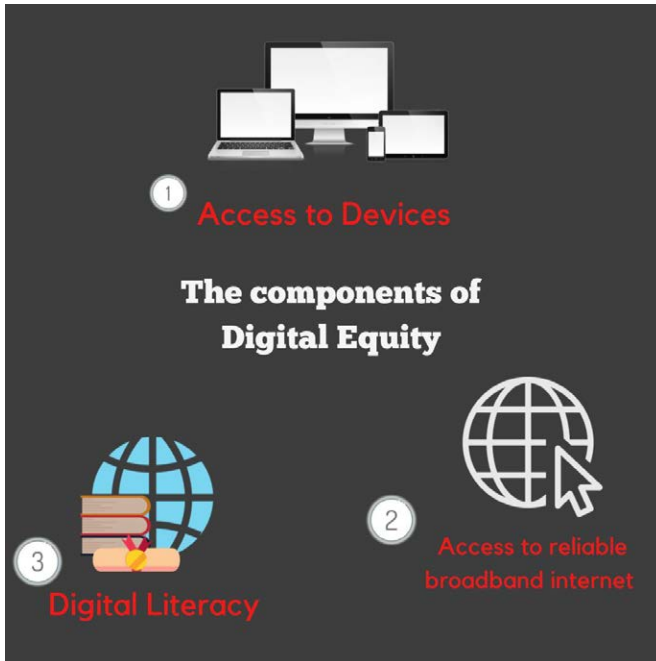


The City That Reads, Charm City, Home—

no matter what you call it, it is still Baltimore, Maryland. The blue-collar harborside city has silently been a staple for the East Coast going all the way back—the city itself is older than the United States as a nation. Although the city seems to be at a crossroads or even a stalemate at times, it is developing. As the city continues to evolve, its residents voice their hopes for a new Baltimore. Just like a coin, the City of Baltimore has two sides. In addition to hope, there exist fear and concern for the soul and culture of the city. Baltimore is plagued by a reputation for police violence and a high crime rate. And in recent years, Baltimore, much like the rest of the country, has been introduced to another big challenge: achieving digital equity.

Digital equity is possible when all citizens have access to high-speed broadband internet, access to devices, and digital literacy. Digital equity is a rational 21st century goal. In a world where not everyone has equitable access to technology, the digital divide stands in the way of this goal. The term “digital divide” refers to the gap that exists between members of society and their ability to sufficiently be productive in this new digital world. In the image I created below, you can see that digital equity comes in three components: access to high-speed internet, access to devices, and digital literacy. These components all come with their own complications.

During the pandemic, we have seen families have to make a choice between kids attending school remotely and parents attending work remotely. Some parents were unable to find footing in an abruptly remote world and struggled to keep food on their tables. Some people even lost their homes.



During the pandemic, many people, especially older seniors and those without internet, lost access to crucial health services. If people were better prepared with the basic components of digital equity, then older adults would be able to contact health care providers, and families would not have to choose between livelihood and education.

Access to high-speed internet has been denied to members of low-income communities for years, and some internet providers have even gotten “called to the principal’s office” for some of their practices. These practices are called digital redlining, which I understand to be the creation and maintenance of technology practices that further entrench discriminatory practices against already

marginalized groups. Several companies have been caught red-handed, most notably global media and technology company Comcast.

Baltimore City Council members Ryan Dorsey, Zeke Cohen, and Kris Burnett asked the Maryland attorney general to investigate Comcast data caps as a predatory form of “[price gouging](#)” for Maryland consumers. This is only one case of low-income communities being subjected to digital redlining tactics. The [Abell Foundation produced a report](#) in 2020 that showed in Baltimore, 40 percent of people lack wireline broadband service, and 33 percent do not have a laptop or desktop computer. It is estimated that [16 percent of the population—nearly 100,000 residents—do not have a high school diploma](#). A 2021 Pew Research Center [study](#) found that only about two-thirds of Black households had broadband internet access, compared with almost 80 percent of white families. Although it may seem as though there may be no hope, there are people and organizations in Baltimore working to combat the issue and achieve a more digitally equitable city.

The [Baltimore Digital Equity Coalition \(BDEC\)](#) is working to bring digital equity to the city. Through partnerships with members including universities, community organizations, tech supporters, and educational partners, BDEC supplies thousands of free devices. BDEC has also launched a community Wi-Fi network in collaboration with Filbert Street Garden and Project Waves. The network aims to allow residents and visitors of the Curtis Bay community to connect to free internet service.

When the COVID-19 pandemic emerged in 2020, BDEC developed a tech support hotline to aid adult learners as workforce development programs were forced online. A collaboration brought a full-time help desk coordinator remotely housed at [United Way of Central Maryland \(UWCM\)](#), and they worked with [YouthWorks](#) to employ more than two dozen paid interns. With a 98.5 percent resolution rate on more than 2,000 cases, the tech support hotline looks to be a success. The Baltimore City Mayor’s Office even adopted recommendations from BDEC, including building free citywide Wi-Fi in Baltimore.

Baltimore Digital Equity Coalition Executive Director Cody Dorsey told me, “Still too many Baltimoreans lack an internet connection, a digital device, and digital literacy skills to take advantage of many opportunities available. In the 21st century, internet access is a human right, and ensuring that we are focused on closing the digital divide equitably is necessary. Technology is critical to everyone’s success. I am glad that the Baltimore Digital Equity Coalition is committed to closing the digital divide collaboratively.”

In 2022 BDEC plans to launch a Digital Navigator program, intended to supply curated services in a continual, one-on-one basis that combines customer service and technical support to ensure the needs of the community members are met. The Digital Navigator service model is a national, replicable framework that expands the capacity of organizations that already supply digital inclusion services.

As a people, we should have the right to digital equity, which I believe is the foundation for development and positive change. The digital divide stands in our way of this progress. In a world where the line between the real world and the digital world blurs, digital equity is very much essential.

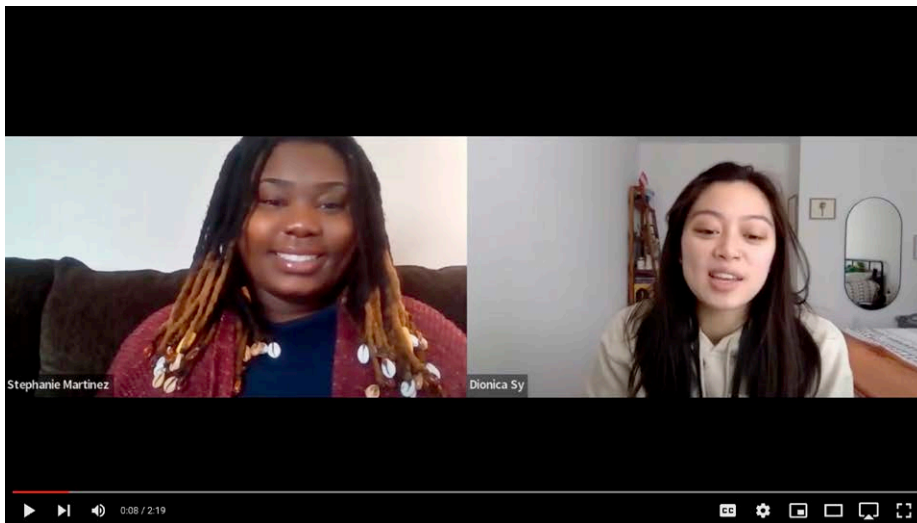


Tay Rivers was born in Baltimore, Maryland, and raised throughout Maryland. A professional photographer and multi-hyphen creative college student, Tay is virtually attending Full Sail University for a bachelor’s degree in media communications and joining the Village Learning Place Library by way of partnership as a Digital Equity Associate with the Baltimore Corps’ Public Allies program.

Participatory Action Research and Digital Equity in Seattle

by Shaun Glaze and Stephanie Martinez

The Black Brilliance Research Project (BBR) worked with local Black-led communities to determine who should serve as Seattle's Digital Equity Action Research (DEAR) fellow. Stephanie Martinez was selected to represent Seattle as well as to help design and implement the program. Stephanie co-led the curriculum design and implementation of several activities, even designing a game to help explore fellows' learning during the program.



[Here Stephanie is in action](#), discussing the intersection of digital equity and survivorship with a local community organizer.

Stephanie participated in both sides of the interview process. Not only did Stephanie develop interview skills that are vital to qualitative research, but she answered questions

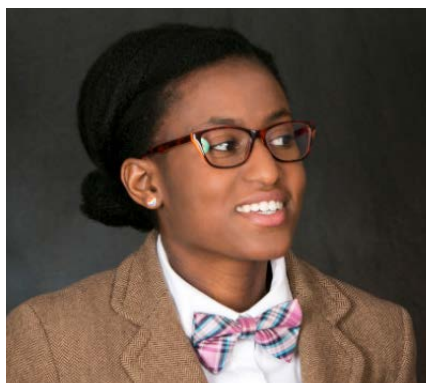
that were key in the development of the fellowship's curriculum. Black Brilliance Research prioritizes community-led initiatives. Understanding participants' perspectives and co-designing programs with those participants are essential components of non-transactional research and development.

Stephanie's insight and point of view contributed to the larger program and benefited the other fellows as they initiated important projects of their own. Stephanie's leadership in the interview process paved the way for future research and digital equity storytelling.

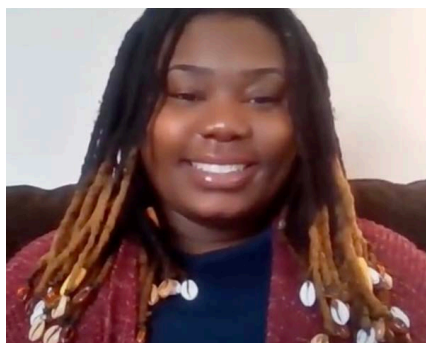
Training young people in Participatory Action Research (PAR) within the digital equity space is essential to creating digital justice practices that reflect the needs of those disadvantaged by the digital divide. The DEAR Fellowship and Stephanie's work have created opportunities for BBR to continue PAR within our digital equity work.

BBR Co-lead and Research Director Shaun Glaze (they/them) notes that PAR is becoming increasingly of interest for policymakers, funders, and practitioners interested in centering community expertise in creating digital justice. As funding for digital equity is being released at the

national, state, and local levels, it is imperative that this funding support PAR-based projects that foster leadership development within technologically unserved and underserved communities to create self-sustaining systems and long-term solutions. For Glaze, this is a welcome change from an overemphasis on traditional approaches that often reflect (and re-create) the inequities that harm Black, Indigenous, and People of Color (BIPOC) communities.



Shaun Glaze, Research Lead and Director, Black Brilliance Research Project, is a participatory action researcher with over ten years of experience in collaborative research, facilitation, and training. Shaun has experience managing research projects for multidisciplinary collaborations across public, nonprofit, and private sectors. Shaun has worked with teams and independently to implement qualitative, quantitative, and mixed-methods analyses. Much of Shaun's work has been focused on diversity, inclusion, equity, and social justice. Shaun was one of the designers and facilitators of the curriculum for this inaugural DEAR Fellowship.



Stephanie Martinez is a skilled creative arts director adept at overseeing written content and working together with designers and artists to accomplish challenging objectives. Stephanie is an excellent communicator and problem solver and is detail oriented. Proficient in critical thinking and team collaboration, Stephanie has demonstrated effective communication in diverse socioeconomic and cultural populations.

Host Organization: East Cleveland Public Library

by A'Sarah Green



[Courtesy of State Library of Ohio](#)

When it comes to broadband's impact on society, having access to data is critical in making change. With the East Cleveland Public Library being a host organization in the Digital Equity Action Research Fellowship, I was able to share insights on how broadband has affected our community. At the library, I wanted to know more about what we need to do to educate our patrons on what broadband is and how having access to it can benefit them. Underprivileged communities have been overlooked (or, perhaps a term we're more used to, redlined) for far too long. In today's times, broadband that is affordable is a necessary tool for success.

For many years, East Cleveland, Ohio, has only had one internet service provider for the entire community. East Cleveland just recently broke these ties and opened its doors to other internet companies. However, there are still many barriers facing those without access to the internet at home. Because of this, many libraries started offering internet hotspot devices to their community residents. The East Cleveland Public Library (ECPL)—with help from The Cleveland Foundation and Mobile Beacon—was able to come up with a plan to offer internet service to East Cleveland residents free of charge. ECPL now has 125 hotspot devices that are circulated out to residents for two weeks at a time if their library card fine is under \$10. Public libraries across the United States are now offering similar services to their community members. Libraries offer many ways residents can bypass the broadband internet barriers of affordability and access. Our library is beyond excited to be included in that list. We've also been excited to share all that we do with the other DEAR Fellows during the fellowship program.

During our fellowship, we hosted a young lady by the name of Domonique Dumas who was nothing short of amazing in her time with us. She challenged us in many ways to offer full details on broadband in our community, all that we offer, and what we would like to offer. She truly had a passion to inquire about what's next for ECPL and the East Cleveland community. We did mock interviews with her and had group conversations with other organizations in the community such as Ashbury Senior Computer Community Center to show Domonique how we work together and the things we are doing differently.

While meeting weekly with the many organizations that were a part of the DEAR fellowship, we heard testimonies and shared useful tools. One of our favorite tools was Snazzy Maps, which allows us to map out in creative ways affordable broadband access, affordable devices, educational locations for digital literacy training, and much more.

Our time with Domonique and the DEAR fellows was short but very impactful. We hope to continue making a change in our community that in the end impacts the world.



A'Sarah Green is the IT network manager at the East Cleveland Public Library. A'Sarah earned her bachelor's degree in political science with a focus on criminal justice from the University of Akron. While with ECPL, she earned her Digital Equity and Leviton certifications to continue her experience and education with computers that had been self-taught at first. A'Sarah gained a strong background working with computers at a young age and has worked with digital devices ever since. Since working at ECPL, she has become a NTEN Fellow, spoken nationally at Net Inclusion, become a Digital Ambassador for the East Cleveland community, taught more than 200 older adults basic digital literacy, and brought affordable internet and devices to the residents of East Cleveland.



Domonique Dumas is an organized dynamic professional in the information technology field. Domonique currently holds many IT certifications, including but not limited to IC3 Digital Literacy and A+ Computer Technician Training. She is currently in the process of completing many Information Technology courses at Cuyahoga Community College. She has worked with many community organizations such as Youth Opportunities Unlimited to continue her education with hopes to work with more organizations in the future.

Digital Equity: Designed, Led, and Sustained by the Long Beach Community

by Lidia Flores

The COVID pandemic has been devastating for families nationwide, and many families have experienced compounded impacts as in-person interactions have become digitized. Consider the experience of Adriana, a monolingual Spanish-speaking single mother in Long Beach, California, who is a low-wage essential worker. When asked about her experience with accessing and navigating technology, she shared this:

I work as an hourly worker in the retail industry, and I'm doing my best to work as many hours as I can while raising my two young children. Since schools closed due to the pandemic, the shift to online learning has really affected my children. I have internet service at home, but it's too expensive, even though it's the most basic plan. My children frequently experience internet connection issues during their classes, and their teachers have noticed they are less interested and not performing as well. I'm doing everything I can to help my kids, but I feel clueless and frustrated about technology. I know I'm not the only person in this situation, but I feel alone. Community members sometimes mention organizations or programs that help people like me, but I don't know where to start to learn more and connect with resources. I want to be more present for my children, and I'd love to work from home, but my job is in-person and I'm not familiar with looking online to find a better job. Sometimes I feel like my family is missing out on an entire world online and we're falling behind.

As society's dependence on technology increases, families like Adriana's—in low-income communities and communities of color—continue to struggle to keep up with the shift to online services accelerated by the pandemic. This digital inequity persists due to underlying social and economic inequities as well as a variety of technological factors, including access to and cost of services and technology devices, discrimination toward communities receiving service, and lack of technical training appropriate for diverse communities. Digital equity and inclusion exist when all communities have access to dependable, high-quality internet connections; modern and reliable technology used to access the internet; and free, multilingual technology training tailored to an individual's experience, skill level, and ability level. Sustainable and intentional digital equity also encourages and creates opportunities for the community to be able to participate in sharing knowledge, power, and support with itself and other communities.

Digital Equity in Practice

If all communities across the country had the equipment, knowledge, and resources to safely navigate and participate in the digital world, people's quality of life, economic mobility, and participation in democracy would all drastically improve. Families like Adriana's would be better able to access local- and state-level essential services, connect with their local organizations, and even learn about and participate in specific support groups. With proper training, individuals like Adriana would be able

to safely research the internet, stay informed with critical news, and better understand the modern dangers of the digital world that their children might be exposed to. Adriana and individuals like her would be better prepared to use job-search websites and get the training needed to move up the career ladder. Civic engagement would increase, as communities would be able to readily contact elected officials, sign virtual petitions, and get involved in local, national, and even worldwide movements. Individuals like Adriana would be able to learn how to get involved in their children's school board meetings, city council meetings, and worker rights groups.

Community involvement in designing, leading, and sustaining digital equity locally is crucial to making meaningful progress globally. In my conversations with Long Beach community members, three strategies to build digital equity and inclusion at the local level arose:

Community Connectors: Utilizing the Promotora Model

Community-based [Long Beach Forward](#) (LBF) designed a project called Community Connectors/Promotoras Digitales to address digital inequity in Long Beach. Using the proven public-health strategy of deploying “promotoras,” or community health workers, to engage underserved communities in linguistically and culturally relevant ways, LBF provided an opportunity for community members to identify people in need of technology training. The idea was that LBF staff and community members would then work together to identify local high school and college students in regular contact with or proximity to the disconnected individuals to train them in person to use Zoom and relevant devices so that they can participate in LBF's participatory budgeting process. These local youth would become promotoras and receive compensation for their time for each person they train. At the time of this writing, the project has not yet been implemented due to limited staff capacity, but the promotora model that employs trusted and relatable community members as effective digital trainers is a critical strategy for digital equity.

Nonprofit Organizations: Serving as the Community Hub

Government and private foundation grants can help community-based nonprofit organizations build digital equity in local communities. With sufficient resources, community organizations that are already trusted institutions and messengers can become digital equity hubs, purchasing and distributing hotspots, laptops, and tablets while providing free multilingual and appropriate training to community members of all ages. Through the community hubs, community members can learn more about the local resources for technology, health, employment, and more. Community members who receive training through the nonprofit hubs will be better equipped to train other community members (as in the promotora model) and connect them to the resources they learned about. To best serve the community holistically, the nonprofit organization can work with local groups, libraries, and schools to connect different populations to services in addition to directly meeting the community's needs. Creating and nurturing digital equity relationships can lead to and sustain a more engaged and supported community.

High School Students: Adopting the Service-Hour Model

Since many high schools require some level of community service as a graduation requirement, students can apply their service hours to receive technology training and provide it to parents and other community members through digital equity events. Parents can learn how to navigate the internet, computer programs, and social media platforms. Participating students can benefit by learning about local community groups, programs, and resources while also developing job skills in information technology. Grants can fund this program and be used to purchase high-quality technology equipment and compensate students for their labor and skills.

If these intentional strategies were funded and implemented in underserved communities, families like Adriana's would be much better equipped to fully engage with education, democracy, the economy, and their communities. With enough creativity, commitment, and empathy, this country can make monumental strides in supporting all of its residents—regardless of race, class, gender, age, or ability level—to thrive in the virtual world.



The Personal Protective Equipment (PPE) Community Distribution event held on February 5, 2022, organized by the Healthy LB team in Long Beach Forward.



Long Beach Forward's Children and Families team tabling at a local neighborhood block party.



Lidia Flores (she/they) is a community organizer with Long Beach Forward. Like the community-based group, Lidia has a vision of race and income that does not determine one's future in Long Beach, California. Through advocacy and coordination of the community-led participatory budgeting process, they work to build a healthy Long Beach with low-income communities of color by building community knowledge, leadership, and power.

Afterword

By Colin Rhinesmith

In the introduction above, my colleagues from Black Brilliance Research and I present Participatory Action Research (PAR) as a strategy to engage community members in using research to create positive change with other members of their communities. In this publication, the DEAR Fellows share their own research, knowledge, and expertise on the digital inequities facing their own communities, as well as solutions to these problems that require much more than providing access to computers, internet, and digital literacy training.

For example, Lidia Flores offers a holistic approach to promoting digital equity through several examples in Long Beach, California, where youth and adults used their “creativity, commitment, and empathy” to build healthy communities. Tay Rivers writes about how he used his DEAR Fellowship as an opportunity to interview community leaders about digital equity in Baltimore. Through his interview with Cody Dorsey, the executive director of the Baltimore Digital Equity Coalition (BDEC), Tay learned more about how BDEC plans to utilize the Digital Navigators model to “supply curated services in a continual, one-on-one basis that combines customer service and technical support to ensure the needs of the community members are met.”

In her video interview with Community Organizer Nica Sy, Stephanie Martinez applied the research and interviewing skills that she gained during the DEAR Fellowship to examine the intersection of digital equity and survivorship. A'Sarah Green of the East Cleveland Public Library, one of the host organizations, shares her insights on how both the library and DEAR Fellow Domonique Dumas benefited from this opportunity.

Christina Quintanilla-Muñoz's deeply researched history of San Antonio's digital equity ecosystem emphasizes the importance of community-power-building as a pathway to digital justice. Christina explains that the DEAR Fellowship provided her with an opportunity “to reimagine how digital equity in San Antonio could be achieved through a liberation framework that emphasizes the community's key role in achieving digital justice.” She offers three main goals that aim “to cultivate a dynamic, interconnected, and resilient ecosystem.”

And, as my colleague Malana Krongelb states in her report on digital inequality in Boston, “If the city government instead chooses to expand programming so that it acknowledges the historical roots of digital forms of discrimination, that wouldn't just address broadband adoption. That would be justice at work.”

The stories shared by the DEAR fellows and their host organizations in this publication only begin to represent what is possible when communities engage in their own research to promote digital equity and justice. As states develop their [Digital Equity Plans](#) so they can qualify for digital equity funding from the National Telecommunications and Information Administration, my hope is that the stories and examples found in this publication offer both guidance and inspiration for what's possible when community members have a seat at the table. This participation not only benefits communities most impacted by the digital divide, it is also a requirement in the [Infrastructure Investment and Jobs Act](#).

Thank you to my colleagues at the Black Brilliance Research project, the Benton Institute for Broadband & Society, and to all of the host organizations and the DEAR Fellows for the creativity, commitment, and empathy shown during our short time together.



Broadband Delivers Opportunities
and Strengthens Communities