



The Future of Digital Inclusion Research: Brainstorming notes

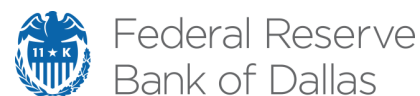
The Federal Reserve banks of Dallas, Atlanta, Philadelphia and Kansas City hosted the [Digital Inclusion Research Forum](#) in Dallas in October. The forum highlighted the latest digital inclusion research, plus emerging methodologies and best practices in the sector. Academics, researchers, community development practitioners and policymakers gathered for impactful conversations about digital inclusion research.

On the final day of the forum, participants reflected on gaps in digital inclusion research, brainstormed responses to a set of discussion questions and discussed ideas with peers. Participants were asked to write their responses to the questions on sticky notes and attach them to the appropriate question boards, which would allow comments to remain anonymous. After the session, Dallas Fed staff collected responses and organized participant input by discussion question (below). Feel free to use this brainstorming as a starting point for further discussion and to help refine ideas for future digital inclusion research.

What gaps have you seen, noticed or experienced in digital inclusion research?

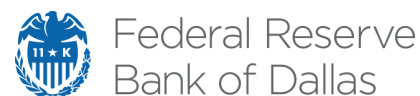
- A better understanding on how this research will change policy, improve Affordable Connectivity Program (ACP) enrollment and get internet service providers to do a better job of producing better and more efficient services.
- The stories of Black people have not been as widely told. “Racial and ethnic minorities” is really broad and cannot highlight the nuances of each minority group.
- I’d really like to see studies on what messaging creates buy-in in covered populations and with the public.
- As part of digital skills, are people learning how to stay safe from online scams and related cybersecurity issues?
- More research on the fourth pillar of digital inclusion: network quality.
- Not all covered populations get the same level of attention. For example, there are fewer programs and research projects focused on veterans.
- Rural municipalities not knowing what is happening in our state (public awareness.)
- What gaps exist? There’s honestly more that we don’t know than we do.
- ACP cliff/impact:
 - Nonprofit trust impact/relationships.

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- Community/individual impact.
- Loss of connectivity.
- Robust mixed methods studies—at least at the forum, there was a fairly clear divide between the quantitative and qualitative presentations.
- Connecting the what with the how—putting research on marginalized un/under-connected populations into practice.
- Adding qualitative data and stories to humanize and substantiate quantitative data.
- Research should be a combination process of quantitative and qualitative research.
- Include practitioners more.
- Successful models and lessons learned—digital navigation services.
- Remote work opportunities for covered populations and training needed (foundational training.)
- Not enough data on people’s *positive* experiences with learning new digital skills. We need to know what resonates and what people feel empowered by.
- Not enough research conducted in languages other than English.
- There is no national data—people are measuring different things.
- Gaps in how research/policy models value broadband access—it's not just about jobs.
- What are the qualitative questions people are often skipping?
- More localized data sources/opportunities to assess needs not based on assumptions.
- How much does poor design of sites impact digital success of users, and how much is skills-related?
- How do people’s experiences with bad actors affect their trust in digital inclusion work? (e.g. getting scammed by an ISP, exploited by bad career tech school, etc.)
- Lack of trust in community—danger of assumption—moving at the speed of trust.
- Meaningful engagement—leveraging community connections.
- What is the relationship between actual network quality and capacity, perceived quality of service in the home, and skill/knowledge/expertise barrier to bridging the gap if there is one? Put another way, when people think their internet access is bad—is it bad network/hardware or more perception? And if it’s perception, are they aware of that disconnect or not?
- Not sure if qualitative or quantitative (or both,) but there is not a good handle on what we mean by affordability and how we use that information.

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- Legitimate objections to technology adoption among the laggard population. How do you balance those concerns when we don't even know how to address them in well-connected communities?

If you could explore any topic (with as much funding, resources and support as you need), what digital inclusion topic(s) would you want to explore?

- Impact of digital inclusion before, during and after incarceration.
- Library digital navigators/device needs.
- Longer-term impacts of broadband among historically marginalized communities, possibly due to difficulty measuring/accessing the data.
- Measuring the impact of digital inclusion initiatives in the communities they target.
- What factors affect participation in digital inclusion initiatives among Black communities? Particularly telling their stories.
- When a program is successful, what elements can be replicated elsewhere, and what aspects are unique to that situation?
- Broadband access, speed and affordability: Want to see replication of Ambika Nair's and Belicia Rodriguez's work in New York replicated in other Federal Reserve regions.
- Fourth pillar: network quality.
- Health benefits, especially mental health benefits, of increased internet access for telemedicine/health and social interaction.
- How does city infrastructure impact digital equity itself, and is it sustainable in terms of maintenance cost?
- Mixed-use housing.
- Using data to challenge state and federal maps.
- How precariously housed people get digital access skills (e.g. couch surfing, living in SROs (single room occupancies), etc.)
- What creative tricks are youth or marginalized communities using to make tech work for them? (e.g. Black teens innovating with Vine back in the day?)
- Funding successful projects to keep them free for the community.
- Affordability.
- Assistive technology.
- Is there a way to determine how affordability impacts what speed test data is showing?

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- Ask people what they *dream* of doing if they had fast internet, a good computer and the skills to use them.
- How digital inclusion is a symptom of white supremacy and/or capitalism.
- Quantifiable indicators of improved trust and confidence of inclusion among covered populations (Digital Equity Act.)

Is there a certain population that you're interested in learning more about (in terms of internet access, affordability, etc.)? Why?

- Migrant workers.
- SRO residents.
- Hispanic community in Texas.
- Foster care and former foster care youth—should partner with The Annie E. Casey Foundation to study.
- Create shared and standardized measures, especially as new funding comes out so we don't create silos and duplication.
- New Americans/language learners (Colorado.)
- Differently abled populations.
- Incarcerated individuals.
- People with disabilities (Colorado.)
- Immigrant entrepreneurs. *Digital Diaspora* (2012) looked at some data on digital device usage; it needs to be updated.

What does comprehensive digital inclusion research look like? If we could get a full grasp of digital inclusion (or a lack thereof,) what should we learn about or explore further?

- Outcomes and impacts on those who start with a hotspot.
- Outcomes and impacts on families who take digital skills training.
- Digital inclusion research needs: 1) a clear understanding of what is happening, 2) a clear understanding of needs by demographic segment, 3) to help those in the divide understand why they need broadband.
- Inclusive of various industries and public agencies (transportation, public works, economic development.)

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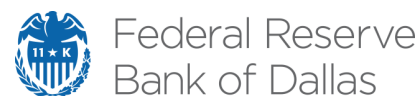
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- Telecommuting ecosystems; once connected, what is offered, food deserts.
- How to include land-use professionals to create telecommuting ecosystems.
- Need more use cases in DI research focusing on healthcare, workforce, essential services, etc.
- Need more outcomes-based research, indicators tracking outcomes from DI programs and services.
- Need rapid iteration models in DI research as technology is forever changing.
- Research is inclusive of all individuals (both covered and noncovered). Includes varying data sets ranging from demographic information to social and cultural information.
- Need human-centered approach to DI research (start with meeting people where they are and understanding what they want to accomplish.)
- Help data sharing to decrease the number of surveys needed (these are so overlapping).
- Research on financial models/structures that incorporate city-specific benefits and resident access benefits.
- Digital inclusion research should encompass all aspects of life. Would be interested in more research on gender.
- Understanding of all funding sources, investments and duplicative investments *and* what's working.
- I know a lot of research we've discussed during this time is about basic demographics (race/income,). However, has any research been done related to special needs/disabilities with the digital divide? Digital exclusion in the special-needs community?

If you could fast-forward 10 years, what do you want DI research to have explored, uncovered or discovered? What should we know about by then, and what steps should we be taking now to learn about those needs?

- Digital empowerment.
- Keyboarding and digital navigation, starting at elementary.
- Consistency in research funding to truly understand longitudinal impacts at scale.
- We should know more about scalable resources that connect the physical economy to the digital economy:
 - Goods distribution supported by e-commerce reaching the last mile.
- Innovatively engaging all departments and agencies. Ask how community connectivity benefits.

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- Data sharing across sectors.
- Empowered communities leveraging DI/digital equity.
- Are our efforts to provide digital inclusion effective among the communities we're targeting?
What has the impact been over 10 years?
- Individualizing interventions (culture, language, age, ability/disability.)
- Need capacity building for organizations serving populations experiencing inequity (research what organizations need, etc.)

How many colleagues/friends do you have in the digital inclusion space? Who do you go to when you have DI-related questions?

- Computer refurbishers—they know it all.
- Over 20.
- Nonprofit partners or organizations that work on the ground.
- All my colleagues are in the DI space. I turn to our curriculum development team since their job is to help build curriculum to fill the gaps.

If you had a magic wand and could solve a DI-related question, data need or unknown, what would you solve or fix? Is there anything that can be done now to solve or fix that need?

- Data on technology spending, broken down by age.
- Would love to know best practices for increasing digital literacy in K-12 in underserved communities where schools face enormous pressure around testing (no room for additional computer classes.)
- Data from ISPs about actual speeds and pricing.
- ISPs would share data with researchers and practitioners (and care about people.)
- State digital equity plans should create a few limited core research points that are collected across all funded projects.
- Broadband maps—we need more access.
- ACP enrollment by race/ethnicity.
- Speeds and latency of connections.
- Metrics for affordability.
- Share research.

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- Measuring impact—next step after DI.
- Combine social science, economics, tech researchers.
- Research should focus on partnership efforts to alleviate intersectional perspectives on DI impact (beware economic/workforce lens only)—so many more impacts.
- Consider the approach “not for us without us” and actively include community members in research and planning efforts. What can DI research learn from other research work to ensure that the community is engaged in the research and that the work is ethically and morally robust?
- What are realistic DI activities that should be defended and ubiquitous for all? Study those. What is achievable/desirable in each community can vary.
- Do not research people without serving them, and pay them for their survey participation. These communities are over-surveyed.
- Support research as a valid cost when funding grant (philanthropic or state digital equity funding.) Fund research.

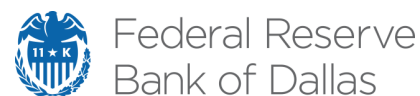
Based on our conference time together, what ideas do you have for new/further DI research? Was there something in a session that you’d want to explore further or in a different way?

- More case studies on DI work with older adults and social impact.
- Cost-benefit analysis of digital skills training on health and social impacts.
- Focus groups with ACP beneficiaries to understand what helped them decide to enroll and how lack of trust can be addressed.

What wish list of partners would you like to work with on a chosen DI research topic? (These could be specific organizations/entities or just general partners such as city/local government, etc.)

- A GIS expert for every research group.
- Connected with researchers working on the National, Social, Life, Health and Aging Project.
- Local universities, community colleges.
- Local universities (Hispanic-serving institutions)/STEM programs—UT San Antonio, UT Rio Grande Valley.
- State broadband/digital equity offices

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- Workforce development organizations.
- Community-based organizations.
- Employers.
- Governor's offices (for incarcerated population.)
- I am interested in the work the University of Chicago is doing on speed tests in homes. I would like to work with them to expand of some of that in the communities we serve in South Texas.
- Re-entry focused community-based organizations.
- Tribes.
- Rural municipalities.
- Schools.
- Public libraries.
- Texas: Would like workforce and education partners/organizations to be invited to do broadband research by the broadband office or National Telecommunications and Information Administration.
- Public relations firm so the public would know what's available and share needs/ideas.
- CBOs in communities with most new adopters
- ISPs, maybe newer/smaller entrants, to measure network quality continuously; data scientists to process data; end users to make data meaningful.
- Orgs outside the traditional digital equity space—healthcare, housing authorities, incarcerated population.