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SOCIAL INNOVATION

DAY ONE PROJECT

Using A Digital Justice Framework To Improve Disaster Preparation And Response

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Summary

Social justice, environmental justice, and climate justice are all digital justice. Digital injustice arises from the fact that 21 million Americans are not connected to the internet, and seven percent of Americans do not use it, even if they have access to it. This lack of connectivity can lead to the loss of life, disrupted communities, and frayed social cohesion during natural disasters, as people are unable to access life-saving information and preventive tools found online.

Digital injustice primarily affects poor rural communities and African American, Indigenous, and other communities of color. These communities are also overexposed to climate risk, economic fragility, and negative

public health outcomes. Digital access is a pathway out of this overexposure. It is a crucial aspect of the digital justice conversation, alongside racial equity and climate resilience.

Addressing this issue requires a long-term commitment to reimagining frameworks, but we can start by helping communities and policymakers understand the problem. Congress and the Biden-Harris Administration should embrace and support the creation of a Digital Justice Policy Framework that includes:

- training and access to information for divested communities
- within-government climate and digital literacy efforts
- a public climate and digital literacy campaign

Challenges And Opportunities

The internet has become a crucial tool in preparing for and recovering from ecological emergencies, building wealth, and promoting community connections. However, the digital divide has created barriers to accessing these resources for millions of people, particularly low-income individuals and people of color. The lack of access to the internet and technology during emergencies deepens existing vulnerabilities and creates preventable losses of life, displacement, and disrupted lives.

The map above shows the intersection between flood or sea level risk and lack of access to the internet. Credit: ArcGIS Online, Living Atlas, Monica Sanders. Click through for full interactive map.

Digital divestment, disasters, and poverty overlap in dangerous ways that reveal “inequities and deepen existing vulnerability... In the United States, roughly 21% of children live in poverty and without consistent access to food. Cascading onto poverty and vulnerability to large-scale events like pandemics and other disasters is the lack of access to the Internet and the education and opportunity that comes with it.”

A recent report about digital divestment in rural communities shows that access to internet infrastructure, devices, and information is critical to economic development. Yet rural communities are more likely to have no device in the home—26.4% versus 20% of the broader United States. Access to broadband is even lower, as most rural counties have just one or no provider. Geography often challenges access to public services.

To tackle this issue, we must reimagine the use of data to ensure that all communities have access to information that reduces vulnerability and strengthens resilience. One pathway to reimagining data in a meaningful way is laid out in a National Academies of Science consensus study report, “Communities need information that they can effectively use in making decisions and investments that reduce the vulnerability and strengthen the resilience of their residents, economy, and environment. Assembling and using that information requires three things. *First*, data, while often abundantly available to communities, can be challenging for local communities and users to navigate, access, understand, and evaluate relative to local needs and questions. *Second*, climate data needs to be vetted and translated into information that is useful at a local level. *Finally*, information that communities receive from other sources needs to reflect the challenges and opportunities of those communities to not just be useful but also used.” Once communities are effectively connected and skilled up, they can use the information to make effective decisions.

The Government Accountability Office (GAO) looked into the intersection of information and justice, releasing a [study](#) on the fragmented and overlapping broadband plan and funding. It recommended a [national strategy](#) to help scale these efforts across communities and focus agency efforts on communities in need that includes recommendations for education, workforce training, and evidence-based policymaking.

Communities can be empowered to take a data-driven journey from lack of access to resources to using innovative concepts like regenerative finance to build resiliency. With the right help, divested communities can co-create sustainable solutions and work toward digital justice. The federal government should leverage initiatives like the Justice 40 initiative, aimed at undoing past injustices and divestment, to create opportunities for communities to gain access to the tools they need and understand how to use them.

Plan Of Action

Executive branch agencies and Congress should initiate a series of actions to establish a digital justice framework. The first step is to provide education and training for divested communities as a pathway to participate in digital and green economies.

1. Funding from recent legislation and agency earmarks should be leveraged to initiate education and training targeted at addressing historical inequities in the localization, quality, and information provided by digital infrastructure:
 - The Infrastructure Investment and Jobs Act (IIJA) allocates \$65 billion to expand the availability of broadband Internet access. The bulk of that funding is dedicated to access and infrastructure. Under the National Telecommunications and Information Administration's (NTIA) Broadband Equity, Access, and Deployment (BEAD) Program, there is both funding and broad program language that allows for upskilling and training. Community leaders and organizations need support to advocate for funding at the state and local levels.
2. The Environmental Protection Agency's (EPA)¹ environmental education fund, which traditionally has \$2 million to \$3.5 million in grant support to communities, is being shaped right now. Its offerings and parameters can be leveraged and extended without significant structural change. The fund's parameters should include elements of the framework, including digital justice concepts like climate, digital, and other kinds of literacy programs in the notices of funding opportunities. This would enable community organizations that are already doing outreach and education to include more offerings in their portfolios.

To further advance a digital justice framework, agencies receiving funding from IIJA and other recent legislative actions should look to embed education initiatives within technical assistance requests for proposals and funding announcements. Communities often lack access to and support in how to identify and use public resources and information related to digital and climate change challenges. One way to overcome this challenge is to include education initiatives as key components of technical assistance programs. In its role of ensuring the execution of budget proposals and legislation, the Office of Budget and Management (OMB) can issue guidance or memoranda to agencies directing them to include education elements in notices of funding, requests for proposals, and other public resources related to IIJA, IRA and Justice 40.

One example can be found in the [Building Resilient Infrastructure and Communities \(BRIC\) program](#). In addition to helping communities navigate the federal funding landscape, OMB could require that new rounds of the program include climate or resilience education and digital literacy. The BRIC program can also increase its technical assistance offerings from 20% of applicants to 40%, for example. This would empower recipients to navigate the fuller landscape of using science to develop solutions and then successfully navigate the funding process.

Another program that is being designed at the time of this writing is the [Environmental and Climate Justice Grant Program](#), which contains \$3 billion in funding from the IRA. There is a unique opportunity to draft requests for information, collaboration, or proposals to include ideas for education and access programs to democratize critical information by teaching communities how to access and use it.

An accompanying public education campaign can make these ideas sustainable. Agencies should engage with the Ad Council on a public education campaign about digital justice or digital citizenship, social mobility, and climate resilience. As an example, in 2022 FEMA funded a preparation initiative directed at [Black Americans and disasters](#) with the Ad Council that discussed protecting people and property from disasters across multiple topics and media. The campaign was successful because the information was accessible and demonstrated its value.

Climate literacy and digital citizenship training are as necessary for those designing programs as they are for communities. The federal agencies that disburse this funding should be tasked with creating programs to offer climate literacy and digital citizenship training for their workforce. Program leaders and policy staff should also be briefed and trained in understanding and detecting data collection, aggregation, and use biases. Federal program officers can be stymied by the lack of baseline standards for federal workforce training and curricula development. For example, FEMA has a goal to create a “climate literate” workforce and to “embed equity” into all of its work—yet there is no evidence-based definition nor standard upon which to build training that will yield consistent outcomes. Similar challenges surface in discussions about digital literacy and understanding how to leverage data for results.² Within the EPA, the challenge is helping the workforce understand how to manage the data it generates, use it to inform programs, and provide it to communities in meaningful ways. Those charged with delivering justice-driven programs must be provided with the necessary education and tools to do so.

FEMA, like the EPA and other agencies, will need help from Congress. Congress should do more to support scientific research and development for the purpose of upskilling the federal workforce. Where necessary, Congress must allocate funding, or adjust current funding mechanisms, to provide necessary resources. There is \$369 billion for “Energy Security and Climate Change” in the Inflation Reduction Act of 2022 that broadly covers the aforementioned ideas. Adjusting language to reference programs that address education and access to information would make it clear that agencies can use some of that funding. In the House, this could take the form of a suspension bill or addition as technical correction language in a report. In the Senate, these additions could be added as amendments during “vote-o-rama.”

For legislative changes involving the workforce or communities, it is possible to justify language changes by looking at the legal intent of complementary initiatives in the Biden-Harris Administration. In addition to IIJA

provisions, policy writers can use parts of the Inflation Reduction Act and the Justice 40 initiative, as well as the climate change and environmental justice executive orders, to justify changes that will provide agencies with direction and resources. Because this project is at the intersection of climate and digital justice, the jurisdictional alignments would mainly be with the United States Department of Commerce, the National Telecommunications and Information Administration, the United States Department of Agriculture, EPA and FEMA.

Recommendations for federal agencies:

- Make public literacy about digital and climate justice a national priority. (This includes government agency personnel as well as residents and citizens.)
- Train agency program officers charged with administering programs on the impacts and solutions for digital justice.
- To empower rural and BIPOC communities to access programs consistently, require plain language drafts or section-by-section explainers for scientific and financial information related to digital justice.
- Create and require a set of “accessible research” guidelines for research institutions that receive federal funding to ensure their work is usable in communities.

Recommendations for Congress:

- Provide research dollars to help agencies develop evidence-based benchmarks for climate, data, and digital literacy programs.
- Set aside federal workforce development funds to build government-wide capacity in these areas.
- Make technical assistance for small municipalities and small community-based organizations a required part of any new digital justice-related statutes and funding mechanisms.

Conclusion

Digital justice is about a deeper understanding of the generational challenges we must confront in the next few years: the digital divide, climate risk, racial injustice, and rural poverty. Each of these connects back to our increasingly digital world and efforts to make sure all communities can access its benefits. A new policy framework for digital justice should be our ultimate goal. However, there are present opportunities to leverage existing programs and policy concepts to create tangible outcomes for communities now. Those include digital and climate literacy training, public education, and better education of government program leaders as well as providing communities and organizations with more transparent access to capital and information.

FREQUENTLY ASKED QUESTIONS

What Is Digital Divestment?

Digital divestment refers to the intentional exclusion of certain communities and groups from the social, intellectual, and economic benefits of the internet, as well as technologies that leverage the internet.

What Is Climate Resilience?

Climate resilience is about successfully coping with and managing the impacts of climate change while preventing those impacts from growing worse. This does not mean only thinking about severe weather. It also includes economic shocks and public health emergencies that come with climate change. During the COVID-19 pandemic, women disproportionately passed away and in one Maryland city, survivors' social mobility decreased by 1%. However, the introduction of community WIFI began to change these outcomes.

What Does Digital Justice Have To Do With Climate Change?

Communities (municipalities, states) that are left out of access to internet infrastructure not only miss out on educational, economic, and social mobility opportunities; they also miss out on critical information about severe weather and climate change. Scientists and researchers depend on an internet connection to conduct research to target solutions. No high-quality internet means no access to information about cascading risk.

How Does This Impact Rural Areas?

While the IIJA broadband infrastructure funding is a once-in-a-generation effort, the reality is that in many rural areas broadband is either not cost-effective nor a feasible solution due to geography or other contexts.

How Can Technology Policy Help Create Solutions?

By opening funding to different kinds of internet infrastructures (community Wi-Fi, satellite, fixed access), communities can increase their risk awareness and make their own solutions.

Why Should The Federal Government Take Action On This Issue Vs. A State Or Local Government Or The Private Sector?

The federal government is already creating executive orders and legislation in this space. What is needed is a more cohesive plan. In some cases that may entail partnering with the private sector or finding creative ways to partner with communities.

What Is The First Step?

The first step is briefings and socializing this policy work because looking at equity, tech, and climate change from this perspective is still new and unfamiliar to many.

1

The Environmental Protection Agency's environmental education program is part of Justice 40 funding. That funding could be targeted to divested BIPOC communities for green, digital upskilling. Imagine going from no connection to using regenerative finance to cure environmental injustices. This program also received additional Justice 40 support. This means resources can be directed towards BIPOC communities in addition to poor communities. Another program that focuses on technical assistance to communities is the EPA's Technical Assistance to Communities (TASC) program.

2

Information taken from a series of interviews with an EPA environmental education program officer, FEMA climate literacy program officers, and an NTIA BEAD officer from February 14th – 16th, 2023. To avoid any conflicts related to the publication of this memo, we allow for the anonymity of these parties.

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