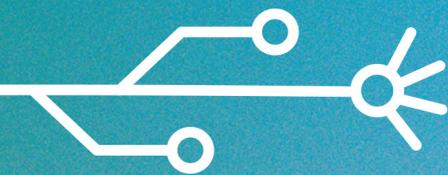


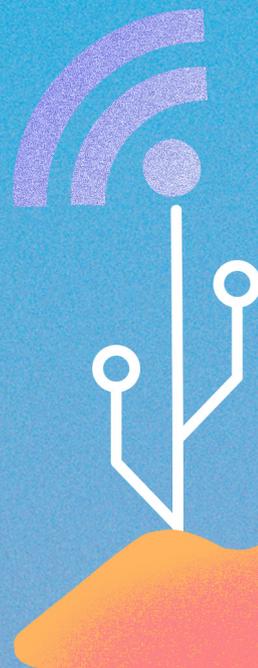


Environmental justice, climate justice, and the space of digital rights



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Open Environmental
Data Project
Open Climate



This issue brief, “[Environmental justice, climate justice, and the space of digital rights](#)” written by Shannon Dosemagen, Emilia Williams, Katie Hoerberling, and Evelin Heidel, is part of a larger body of work around the intersection of digital rights with environmental and climate justice, supported by the Ford Foundation, Ariadne, and Mozilla Foundation. **This research project aims at better equipping digital rights funders to craft grantmaking strategies that maximise impact on these issues.**

This brief was published alongside several publications, including a research report mapping the landscape at this intersection by The Engine Room, and issue briefs by Association for Progressive Communications (APC), Business for Social Responsibility (BSR), and Open Environmental Data Project and Open Climate.

All publications can be found at
<https://engn.it/climatejusticedigitalrights>



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Abstract:

This issue brief clarifies the main features of the cross-sector space of climate justice and environmental justice and provides an analysis of the core principles, values, and common strategies and tactics that both movements use. Written for digital rights funders, we provide a shared vocabulary that can be used to understand these spaces and further recommend commonalities for funding in them.

To understand the positionality of this brief, we recommend readers review the author notes at the end of this document.

Issue summary:

- + While environmental justice and climate justice have inextricable links, the histories and formations of each movement point to unique places of attention for digital rights funders.
- + The trajectories of different types of justice in the climate and environmental justice movements can help us better understand how each gains traction, employs tactics, and builds strategy.
- + Recent attention by governments on (environmental) justice, equity, and the language of rights and responsibilities in collaborative environmental governance demonstrates places for near-term impact and exemplifies the need for precision in talking about these two movements.
- + At the conjunction of environmental justice, climate justice, and digital rights sit three consequential areas to consider:
 - The relationship between the surveillance state, environmental activists, and the right to privacy
 - Climate migration and the right to migrant privacy and protection
 - The ability to use, collect, and understand environmental data



Recommendations:

There are clear intersections at which digital rights funders can advance climate and environmental justice.

01.

Incorporate climate and environmental justice lenses on issues of privacy, surveillance, and data protection.

02.

Increase the language and incorporation of digital rights in current environmental and climate bills, and vice versa.

03.

Provide resources for activists, practitioners, and researchers to better understand the implications of each space.

04.

Explore strategies for cultivating the political will necessary for making systems change.

05.

Support environmental data's use as a public good through investments in critical digital infrastructure.

06.

Create awareness of the role of philanthropy in addressing or exacerbating the consequences of competing priorities in funding schemes as they relate to environmental tradeoff narratives (e.g., well-paying jobs vs. adverse health outcomes).

07.

Build awareness in the digital rights space of how nuances between environmental and climate justice play out in larger policy decisions.

08.

Work with funders who understand the priorities of environmental justice communities and can help guide coordinated funding strategies.



Climate justice and *Environmental justice* are often used interchangeably— or at least are often mentioned in the same breath without distinction. There are respective histories, strategies, tactics, and principles that define climate justice and environmental justice in unique ways, especially as they relate to digital rights. Digital rights funders have an opportunity to expand both movements’ access to infrastructure, data, and digital rights tools that can be used for shared organizing, while also ensuring necessary protections for activists. By prioritizing funding strategies that focus on the commonalities of environmental and climate justice, and that acknowledge areas where each can or should stand on its own, we can create a dynamic set of resources to amplify both movements’ ability to address the crisis of our lifetime.

We’ve reviewed the history and trajectories of both movements in [“The History of Climate Justice, Environmental Justice, and the Digital Rights Space”](#) and pull the following definitions for this brief:

- + **Environmental justice** “is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies” (EPA [2021](#)). With close ties to the U.S. civil rights movement, environmental justice has directly connected rights-based struggles, specifically racism and discrimination, to the unjust distribution of pollution. The history and terminology of environmental justice signify the systemic nature of these particular environmental transgressions. This offers insight into how environmental justice, considered globally, might link intersecting societal issues as a root cause of environmental injustice, allowing for more intersectional considerations of interlocking problems. The movement has been studied and built by sociologists like Dr. Robert Bullard throughout the 1980s, and then codified at the First National People of Color Environmental Leadership Summit in 1991 (Energy Justice Network [1996](#)) and in the Jemez Principles of 1996 (Energy Justice Network [1996](#)).



+ The global **climate justice** movement, as described by a 2011 UN Research Institute for Social Development (UNRISD) paper, is a loose merger between three entities: the environmental justice movement, the global justice or anti-corporate globalization movement, and a group of international NGOs involved in United Nations (UN) climate talks (Gabbatiss and Tandon [2021](#)). This characterization recognizes its international scope with a nod to its local impacts through environmental justice, but popular knowledge would recognize that climate justice has expanded to include considerations of different justice frameworks across disciplines (discussed below).

We encourage readers to build awareness in the digital rights space of the places where climate and environmental justice intersect, but also where they differ. Not all environmental justice communities are organizing around the direct effects of climate change, and not all communities that are vulnerable to climate change suffer from environmental injustice in equal ways. As resources are designed and dedicated to address both forms of injustice, understanding this nuance will be critical for the efficacy of programs and funding.



Using a justice framework to address power

It is useful to conceptualize climate and environmental justice through ways they can play out materially in each movement. We can understand issues within the environmental and climate movements using these four types of justice:

- + *Capabilities justice/approach* (Eisenhauer et al., [2021](#); Nussbaum [2013](#)): What capabilities do people have or need to lead a dignified life?
- + *Distributive justice* (Kaswan [2003](#)): Who has resources and who lacks them? Who benefits and who is harmed?
- + *Recognitional justice* (Whyte [2011](#)): Whose needs and backgrounds are considered and represented?
- + *Procedural justice* (Holland [2017](#)): What is the decision-making process and who is involved?

Examining issues by analyzing the types of justice at play opens lines of inquiry into what other rights might be at stake in a particular issue and can lead to a better understanding of stakeholders' positions of power, the institutional pain points, and opportunities for addressing injustice. For example, distributive justice is a key aspect of how activists and stakeholders understand climate justice, but the decision-making power concerning climate justice issues – e.g., climate reparations (Táíwò and Cibralic [2020](#)),



or loss and damage⁰¹ – is still held by those who are less affected in the Global North (Khadka [2021](#)). This is a negation of both procedural and recognition justice, and is characteristic of the climate justice movement’s interaction within the international climate diplomacy space more broadly.

These questions also point to the larger categorical similarities of the two movements, especially when examining who is harmed or who has decision-making power. Black, Indigenous, and people of color (BIPOC), people without historic access to capital, the undocumented, and those living outside of traditional centers of power suffer the consequences of inaction or malaction, and in most cases lack a proportionate degree of decision-making power in both the environment and climate spheres.

There is a central connection with human rights, as well: both environmental justice and climate justice are tethered by a commitment to protect human rights from environmental threats and to secure environmental health. The multidimensionality of justice in both environmental justice and climate justice expands out to intersect with reproductive justice (Liddell and Kington [2021](#)), administrative justice (Doyle and O’Brien [2020](#)), structural violence (Morales [2012](#)) and the capabilities approach to justice (Holified et al., [2020](#)). Similarly, the digital rights movement seeks to expand freedom of expression, which may take the form of environmental activism, and to protect the privacy and sovereignty of those whose data is collected and shared through digital tools.

⁰¹ [Loss and damage](#) is the broader term for climate reparations that are codified in United Nations treaties and negotiations.



Due Recognition:

The popularization of environmental justice within U.S. government

Creating a close link between environmental and climate justice can help to build coherence in the “pipeline issues” that have exacerbated climate change. For instance, in Louisiana, oil companies have dredged wetlands to lay pipelines, leading to a rapid decrease of coastline (Carey [2013](#)) and the biodiversity necessary for maintaining healthy wetland ecosystems that protect the coastline from storms. Fenceline environmental justice communities⁰² have organized in Louisiana against petrochemical refining and plastics, whose facilities line Louisiana’s stigmatized “cancer alley.” While these organizing efforts are largely a local issue focused on public health, it also has consequences for the larger global emissions crisis affecting countries in the Global South.

Articulating environmental and climate justice as intimately part of the same continuum is essential. In the last year, environmental justice has received heightened attention in both branches of the U.S. government. In addition to the long-standing Office of Environmental Justice at the Environmental Protection Agency (EPA) and the National Environmental Justice Advisory Council (NEJAC), four Congressional bills have been introduced related to environmental justice, the White House has created the Justice40 (J40) Initiative and an environmental justice advisory group,⁰³ and Congress

⁰² Fenceline communities “lie adjacent to industrial facilities and live with excess pollution levels, health disparities, and often lower-than-average incomes. A history of redlining and segregation, along with a lack of zoning laws, has led many people of color to live in the shadow of industry” (Nicole [2021](#)).

⁰³ Comparatively, to date only one such [bill related to climate justice](#) has been introduced. The language of the bill serves to create a working group on climate justice, but is closely linked in language to environmental pollution. There are also a number of smaller, programmatically related bills such as the Climate Change Resiliency Fund and the Climate Justice Grants Act.



has an environmental justice caucus (Burke [2019](#)). Government offices are recognizing the implicit connection of justice and equity through calls for public comment and the provision of information on equity in access by communities. These efforts, and J40 in particular, may have a role in advancing digital rights, for example through the use of digital technologies to facilitate public participation in its decision making, or in equitably selecting communities in which to place digital air and water quality sensors. EPA is currently faced with addressing the numerous rollbacks of the previous administration, but they are centering environmental justice as their core approach (EPA [2021](#)).

Though all of this work and focus have yet to demonstrate what will result and ultimately be put into action, the current attention environmental justice is receiving from government should not be minimized. The climate crisis (as a construct affecting society more broadly) is also garnering attention from other segments of government, from the Congressional Select Committee on the Climate Crisis to the establishment of the White House Climate Policy Office and several Executive Orders related to addressing climate change.

The boundedness of what is included under environmental justice and what is included under climate change actions in government is a clear place where it is important to be precise in our meaning and intent.⁰⁴ Though the two should be considered side by side, we will struggle to create equitable and workable policies if every community becomes an environmental justice community (for sake of resource allocation and in recognition of long-standing systems of environmental racism) based on their proximity to the effects of climate change (Pontecorvo [2021](#)). To illustrate:

- + There are communities whose primary organizing is not around the generally increasing temperatures of climate, but instead addressing the cancer hotspots of living next to an oil facility or the health effects of Concentrated Animal Feeding Operations (CAFOs).

⁰⁴ As a precedent, there is a law around citizen science, the [Crowdsourcing and Citizen Science Act of 2016](#) and a [Federal Community of Practice on Crowdsourcing and Citizen Science](#). “Community science” has become de rigueur for [a number of reasons](#), but trying to connect these two practices and terms too closely will have detrimental effects for the work that was already created in impacting change through legal and policy routes via “citizen science.”



✦ Wealthy California communities will experience wildfires, but they won't experience them in the same ways that poorer geographically adjacent communities will. Communities living under the stress of historical and multi-generational pollution and the systemic effects of race and class should have greater access to resources to help address, prepare for, prevent, and recover from both our long-term and slow-moving environmental crises.

✦ With the increasing intensity of storms such as August 2021's Hurricane Ida that moved across Louisiana and into the wealthier Northeast region, our policies and practices must be prepared to address the increased need for funds across more geographic regions, and the competition that could create. We must be aware of the potential reallocation of funds away from the Gulf Coast – one of the poorest areas of the U.S., which has long experienced the encroaching effects of climate change, industrial pollution, and poor investment in infrastructure – to support more politically and socially affluent communities in the Northeast.⁰⁵

The historic lack of political will from governments has undermined efforts by environmental and climate justice activists and communities to build a multi-stakeholder approach against multinational economic forces that exacerbate climate change and environmental pollution. Communities often already have solutions to these issues, created from decades of experience dealing with ineffective environmental governance. Right now, we have a window of opportunity to create a framework that shifts problematic systems and redesigns them for a different participatory environmental governance future.

⁰⁵ As reported in [Billions for Climate Protection Fuel New Debate: Who Deserves It Most](#), “Mr. Biden has insisted that at least 40 percent of the benefits of federal climate spending will reach underserved places, which tend to be low income, rural, communities of color, or some combination of the three. But historically, it is wealthier, white communities – with both high property values and the resources to apply to competitive programs – that receive the bulk of federal grants. And policy experts say it’s unclear whether, and how quickly, federal bureaucracy can level the playing field.”



Bridging the space:

Why this matters for digital rights

The distinction between environmental justice and climate justice is significant, and its significance lies at the intersections of differing forms of justices and rights - including digital rights. The specific strategies of the two movements and their networks determine their interaction with the Internet and digital services, though both movements need their basic digital rights protected and recognized, especially as solutions increasingly incorporate digital tools.

Digital technologies could play a significant role in shifting the way coordinated political, social, economic, and cultural action happens in efforts to address climate change and environmental pollution. The crises create or reinforce rights issues related to surveillance, privacy, and data sharing. However, the rhetoric of environmental activism often frames digital technology as a luxury or contributor to the crisis⁰⁶, leaving digital rights activists unsure of how to engage. Likewise, when digital rights communities signal there are privacy problems with using digital platforms for protest and organizing, climate activists don't always understand these concerns as problems they must solve or have a role in. There is room for collaboration: both spaces are grounded in a foundational desire and goal to address human rights and economic injustice through building better social systems for a livable future.

There are numerous intersections between environmental justice, climate justice, and digital rights; here, we focus on three specific cases that highlight what's most at stake at the conjunction of these three areas.

⁰⁶ Though not the topic of this issue brief, digital technologies designed to address societal problems can create further issues with environmental sustainability while also increasing the potential for social injustices. For instance, AI models (already rife with issues of bias) trained to save energy for office buildings require significant energy and water to train. In the space of AI, this is a potential area for further exploration.



The surveillance state, environmental activists, and the right to privacy

Environmental activists have been surveilled, targeted, and attacked by state and private actors since the beginning of the movement, even before the technologically-enhanced surveillance state became ubiquitous. As activism within the environmental and climate space becomes more frequent and widespread, addressing the digital rights of these activists specifically will be key. Tactics like invasive online monitoring, spyware, and phishing campaigns are used to intimidate activists and complicate their use of needed communication and safety devices (Hindmarsh and Calibeo [2017](#)). This digital surveillance is as damaging as ground surveillance and infiltration, if not more so, and these tactics are based on a strategy to weaken the organizing power of both environmental and climate justice activists and their movements, and to incite distrust in tools that could strengthen their work.

There are myriad documented cases of digital rights infringement in most types of environmental and climate activism, spanning from those physically protesting the construction of fossil fuel infrastructure⁰⁷ to protesting at international climate talks to battling Strategic Lawsuits Against Public Participation (commonly referred to as SLAPP suits). Attention to digital rights issues regarding freedom of expression, information and communication, privacy and data protection, and the right to anonymity must be factored in when considering the interactions between environmental activists, corporations, and governments.

⁰⁷ As reported by [The Intercept](#), Enbridge created an initiative called Opposition Driven Operational Threats (ODOT), to focus its attention on “Indigenous opposition to Line 3 and Line 5, two controversial pipelines that transport carbon-intensive tar sands oil between Canada and the United States.” With ODOT, the company also tracks individual pipeline opposition groups: “To facilitate the monitoring, Enbridge has used a system to count the number and types of “threats” to Enbridge projects carried out by particular “threat actors” over time. In 2021, the counts focused particularly on Line 3 and Line 5, tracking more than a dozen threat actors, including Indigenous-led pipeline resistance groups such as Camp Migizi and the Giniw Collective.”



Climate migration and the right to privacy and protection

As the effects of a warming world render more regions unlivable, either through resource or land depletion, there will be more human migration, both internally within nations and across borders. Asylum seekers and refugees are at particular risk from the harms of the surveillance state, as states increasingly deploy measures that include biometric data collection and geo-tracking (Jumbert et al., [2018](#)). Take, for example, the tracking device designed for detained migrants as an alternative to physical detention by US Immigration and Customs Enforcement: the Nexus Libre, a GPS-enabled ankle bracelet used to monitor detainee's location, paid for by the detainee (Precarity Lab [2020](#)).⁰⁸ Another aspect of detainment alternatives has materialized as an app called SmartLINK, which requires immigrants to check in by uploading a selfie for facial recognition while confirming their location (Paul [2021](#)). In the European context, the European Commission is funding a border control system called iBorderControl, which is designed to detect deception based on measurement of micro-expressions as “biomarkers of deceit” during interviews with migrants (Sanchez-Monedero & Dencik [2020](#)). The proliferation of “smart borders,” or information systems that operate to control border crossing traffic, migration, and asylum applications and facial recognition technologies in the U.S., Europe, and on other borders will persist as technology advances and displacement increases.

08 At \$420 per month, oftentimes for 25 months.



There are clear concerns with privacy, use of AI, and surveillance associated with such methods, and the development of digital systems and tools specifically designed to infringe on one's right to privacy that also seep into more accessible platforms for surveillance. Social media monitoring has been commonplace with migrants across the world. In the United States, it has been commonplace since 2016, when U.S. Customs and Border Control officers began to gather information from social media profiles during the Electronic System for Travel Authorization (ESTA) application process (Miller [2019](#)). Digital rights groups must be involved at the intersection of addressing alternative methods of processing personal data, especially in the absence of an international legal framework to address climate migration, let alone the digital rights of climate migrants.



Access to the Internet, data, and the ability to use and collect environmental data

Self-reporting of environmental impacts (emissions, waste, and exposures) by industry has long been the status quo (for instance, see Anchondo and Lee [2021](#)) and a part of the root reason communities often seek access to existing environmental information and the option to determine where data and information collected about their own experiences can be shared, which are often different from industry-reported narratives. The (European) Aarhus Convention allows for the right of citizens to access environmental information, participate in environmental decision-making, and access justice (European Commission [2021](#)), yet similar rulings on the rights and responsibilities of environmental governance practices are otherwise limited. We have guiding principles such as FAIR standards and those developed by the Global Indigenous Data Alliance (GIDA [2018](#)) and the First Nations Principles of Ownership, Control, Access, and Possession (OCAP [2021](#)). However, we continue to fall flat on creating data that is findable, accessible, and usable, and in the case of FAIR, problems exist with the resources required to maintain data under these standards (Bezuidenhout [2020](#)).

In 2020, Open Environmental Data Project did a deep dive into the problem space of data in environmental governance (Dosemagen and Tyson [2020](#)), finding a wide assortment of issues related to antiquated policies, workflows and processes, and the lack of basic environmental information infrastructure (i.e., a comprehensive list of existing environmental datasets). The complexities that prevent people from being able to contribute their own information are far more confounding: while data collection and manage-



ment platforms have proliferated, the usability features of data are mired in administrative discrepancies, lack of trust and transparency between communities and government, and an unwillingness to break down the barriers that facilitate the discourse needed to resolve these issues. While the civil and private sectors create new generations of digital monitoring tools, standards for regulation and enforcement create little room for usability of these tools⁰⁹ and the incorporation of digital rights in this field of R&D is simply nonexistent. Creating participatory systems of environmental governance so that policies work on behalf of communities can happen through looking at environmental data, the critical infrastructure needed to make it usable, and the rules that govern it.

⁰⁹ These tools do see significant uptake in other facets of environmental monitoring such as baseline research, management, and education ([NACEPT](#) 2016).



Recommendations:

Strategies for bridging environmental and climate justice through digital rights funding

There are clear intersections where digital rights funders can affect climate and environmental justice simultaneously:

- 01.** Incorporate a climate and environmental justice lens on issues of privacy, surveillance, and data protection. There is space for digital rights organizations to influence technology policy and investment through discourse that addresses the digital rights of those being affected by climate change. As climate change worsens, more of the global public will suffer its consequences, engaging in advocacy and policy related to climate change mitigation. Funders can draw attention to the digital rights of those being affected by climate change through funding opportunities and awards. This is especially relevant as governments, like the European Commission, are increasing investment in technology development.
- 02.** Increase the language and incorporation of digital rights in current environmental and climate bills, and vice versa. Current legislative actions or bills (plus acts, orders, resolutions, etc.) on environmental justice could be strengthened by better incorporation of digital rights considerations. Additionally, current digital rights bills and tech investment can be strengthened by the incorporation of climate and environmental justice considerations. There is a particular opportunity to be influential in the European context right now, as the European Commission is increasing investment in tech development. As their focus is to decarbonize the economy, there is a need to incorporate environmental and climate justice into the design, regulation, and decisions with decarbonization tech (European Commission [2021](#)).



- 03** ● Provide resources for activists, practitioners, and researchers to better understand the implications of each space. Support people working on digital rights in understanding the needs of cultural and historical knowledge and experience (the metadata) related to the immediate urgency of the environment and climate space. Conversely, it is necessary to support environmental and climate justice activists in understanding and communicating the importance of digital rights within their own movements (e.g., combating the misuse of personal data by corporations). Potential solutions include funding for training and fellowship programs, and technical support for data infrastructure projects.

- 04** ● Explore strategies for cultivating the political will necessary for making systems change. Technological approaches to solving critical challenges across environmental justice, climate justice, and digital rights must be accompanied by further exploration and understanding of how to deal with the stagnation of people in power (i.e., governments, corporations, etc.). Modeling strategies for digital rights activists to work alongside climate and environmental justice advocates to address the necessity of behavior, culture, and governance shifts can help provide a roadmap for addressing this largely overlooked and under-addressed issue.

- 05** ● Support the functioning of environmental data as a public good (Williams et al., [2021](#)) through investments in critical digital infrastructure. Environment and climate data and their associated data architecture are sorely underfunded and under-resourced. Providing support for comprehensive work on information infrastructure in the environment and climate space can greatly enhance progress towards justice-driven goals. Actions include:



- ↘ Moving conversations in the environmental data space beyond “data management” so that digital rights are foregrounded in the conversation. To move beyond data management, we must consider data ethics, usability, and issues of sovereignty.
- ↘ Building the infrastructure for environment and climate information sharing a) within communities, b) between communities, and c) between communities and external data users (government, scientists, etc.), while also examining strategies for addressing digital rights issues around anonymity, encrypted information sharing, etc.
- ↘ Building the interfaces for people to make use of existing environmental and climate data. Supporting the exploration of systems redesign to ensure that available datasets are put to best use by researchers outside of original intent. Within this investigation and design, ensure that principles such as FAIR are not exceedingly difficult to obtain.
- ↘ Developing principles and approaches for the digital rights issues inherent in next-generation environmental monitoring technology. From the work of open scientific hardware on creating localized monitoring devices to the Environmental Defense Fund’s MethaneSAT to the PurpleAir Sensor network, digital rights considerations of people involved in contributing data to sensor networks is limited. Additional attention to understanding the role of digital rights in common censorship lawsuits (e.g., in the environmental space, SLAPP suits) as people collect and contribute environmental data would greatly benefit this work.
- ↘ Putting funding towards enabling grassroots environmental and climate justice efforts to connect with institutions that can help sustain independent data sets (universities, libraries, community organizations, etc.) in ways that allow communities to retain ownership and control of said data.



- 06** ● **Create awareness of the role of philanthropy in environmental and climate tradeoff narratives.** The environmental space is rife with tradeoff narratives. For instance, in fenceline communities, priorities may both be in the health of children and in retaining jobs at a local industrial facility. In the next few years, digital rights funders should have a clear framing within their giving strategies for how they deal with potentially competing priorities in funding schemes related to privacy, transparency and accessibility. Additionally, funders have a role to play in supporting holistic programs targeted for *just transitions* that do not create silos, and thus, competition.

Build awareness in the digital rights space on how nuances

- 07** ● **between environmental and climate justice play out in larger policy decisions.** Philanthropy exerts power and can shift conversations based on the terminology used. For instance, the shift in language from “citizen science” to “community science” by some funding institutions signaled a necessity for projects and organizations to do the same. Programs funding climate justice should ensure their framing does not counter or act in disservice to the momentum that environmental justice has recently built.

- 08** ● **Work with funders who understand the priorities in environmental justice communities and can help guide coordinated funding strategies.** To ensure that environmental justice organizing is valued as a function of climate justice, build relationships with funders who have already given strategically at the grassroots level. Prioritize funding relationships with digital rights advocates that value doing this work alongside historically vulnerable communities and understand the necessity of multi-vocal approaches to addressing climate and environmental justice.



Conclusion:

An integrated plan for digital rights and the climate and environmental justice movements

Critical digital infrastructure can be used to address the environmental and climate crises in participatory, community-grounded, and data-driven ways, but has yet to be a central focus of philanthropy, at least in this manner. As environmental data – whether in the form of verifiable carbon emissions accounting or the lived experiences of frontline communities – is increasingly digitized, individualized, and utilized, the protection of digital rights becomes more urgent. As a public good, ubiquitous and usable environmental data can help secure human rights in both physical and digital spaces, as well as accountability between policy and populace, citizen/resident and government, and nation and global community.

Digital rights funders have a unique opportunity to mitigate harm in communities vulnerable to the negative impacts of digital technology, climate change, and environmental pollution. As tracking and control methods such as “smart borders” proliferate, so too will privacy, AI, and surveillance concerns. Investors and policymakers must factor in issues regarding freedom of expression, access to information and communication channels, data privacy and protection, and the right to anonymity when funding or supporting collaborations between environmental activists, corporations, and governments.

To move forward at a pace and scale that affects meaningful change, the digital rights movement must also assess where lack of political will hinders this work. In addition to infrastructure improvements and continued interrogation of surveillance and monitoring technologies, practitioners



and researchers in the climate justice, environmental justice, and digital rights spaces must also work to shift policy, culture, and behavior in spaces of power. Funders can exert influence on technology policy and investment through discourse on the digital rights of those most affected by climate change, and by incorporating the language of digital rights in climate and environmental policy.

Now is the time to invest in intersectional work to ensure that digital rights are protected for advocates and that climate and environmental justice provisions and considerations are present in tech investments and digital rights bills. Giving strategies must prioritize the interests of the poorest and least affluent communities most affected by pollution and climate change. Digital rights funders have an opportunity to expand access to infrastructure, data, and digital rights tools that provide strategies for shared organizing, while also ensuring necessary protections for our most at-risk communities.



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Author Notes

- 01.** The purpose of this issue brief is to better understand the places of convergence and the clear areas of differentiation between environmental justice and climate justice. Environmental justice has a long history in the United States and the lead author of this brief traces her own work, in part, through this landscape. However, we recognize the complex and different ways that environmental injustices come up against environmental governance paradigms worldwide. Our intent is to focus concretely on one political geography, with examples from others, so as to ground our assessment.
- 02.** While we center this brief on providing a framework to think about climate and environmental justice that will allow us to more deeply move into the conversation of digital rights in these spaces, we recognize that many people define these movements in different ways. We ask the reader of this brief to not stumble on the definitions we've provided, but to consider the argument for the simultaneous ability of digital rights to affect both movements and vice versa. After all, we're here to constructively put these interactions to work in service to our bigger goals of enabling just environmental futures.
- 03.** The tradeoff narratives in the climate and environment space are deeply interwoven and problematized (i.e, if Simon gets an apple, then Simon can't have an orange). While we believe that tradeoff narratives can be solved through robust environmental governance, that is another topic for a different time and thus we don't address this extensively in the brief, but highlight it as a recommendation for further exploration.



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References

- Anchondo, C. & Lee, M. (2021, August 20). Research shows gaps in how EPA, oil industry measure methane. E&E News, EnergyWire. <https://www.eenews.net/articles/research-shows-gaps-in-how-epa-oil-industry-measure-methane/>
- Bezuidenhout, L. (2020, July). Being Fair about the Design of FAIR Data Standards. Digital Government: Research and Practice, 1(3), 1-7. <https://dl.acm.org/doi/10.1145/3399632>
- Burke, Michael. (2019, April 22). Dem senators launch Environmental Justice Caucus. The Hill. <https://thehill.com/policy/energy-environment/440046-dem-senators-announce-environmental-justice-caucus>
- Carey, J. (2013, December 1). Louisiana Wetlands Tattered by Industrial Canals, Not Just River Levees. Scientific American. <https://www.scientificamerican.com/article/carey-louisiana-wetlands-tattered-by-industrial-canals/>
- Dosemagen, S., & Tyson, E. (2020, July 20). Research: Understanding the problem space. OEDP. <https://www.openenvironmentaldata.org/research-type/understanding-the-problem-space>
- Doyle, M., & O'Brien, N. (2020). Reimagining Administrative Justice. <https://doi.org/10.1007/978-3-030-21388-6>
- Eisenhauer, E., Williams, K., Warren, C., Thomas-Burton, T., Julius S., and Geller, A.M. (2021, October). New Directions in Environmental Justice Research at the U.S. Environmental Protection Agency: Incorporating Recognition and Capabilities Justice Through Health Impact Assessments. Environmental Justice 14(5), 332-331. <http://doi.org/10.1089/env.2021.0019>
- Energy Justice Network. (1996). Jemez Principles for Democratic Organizing. EJ.Net. <http://lvejo.org/wp-content/uploads/2015/04/ej-jemez-principles.pdf>
- Energy Justice Network. (1996, April 6). Principles of Environmental Justice. EJ.Net. <http://www.ejnet.org/ej/principles.html>
- EPA. (2021, April 7). EPA Administrator Announces Agency Actions to Advance Environmental Justice. EPA Press Office. <https://www.epa.gov/newsreleases/epa-administrator-announces-agency-actions-advance-environmental-justice>



- EPA. (2021). Environmental Justice at the EPA. <https://www.epa.gov/environmentaljustice>
- European Commission. (2021). Aarhus Convention. <https://ec.europa.eu/environment/aarhus/>
- European Commission. (2021). EU invests over €1 billion in innovative projects to decarbonise the economy. https://ec.europa.eu/commission/presscorner/detail/en/ip_21_6042
- Gabbatiss, J. & Tandon, A. (2021, April 10). In-depth Q&A: What is ‘climate justice’? Carbon Brief. <https://www.carbon-brief.org/in-depth-qa-what-is-climate-justice>
- Gida Global. (2018). CARE Principles for Indigenous Data Governance. <https://www.gida-global.org/care>
- Hindmarsh, R. & Calibeo, D. (2017, December). Exploring the interface of environmental activism and digital surveillance. Conference: Sociotechnical Environments, 6th STS Italia Conference. https://www.researchgate.net/publication/321996644_Exploring_the_interface_of_environmental_activism_and_digital_surveillance
- Holifield, R., Chakraborty, J., & Walker, G. (2020). The Routledge Handbook of Environmental Justice. Routledge. <https://www.routledge.com/The-Routledge-Handbook-of-Environmental-Justice/Holifield-Chakraborty-Walker/p/book/9780367581121>
- Holland, B. (2017). Procedural justice in local climate adaptation: political capabilities and transformational change. Environmental Politics, 26(3). <https://doi.org/10.1080/09644016.2017.1287625>
- Jumbert, M.G., Bellanova, R. & Gellert, R. (2018). Smart Phones for Refugees: Tools for Survival, or Surveillance? PRIO. <https://www.prio.org/publications/11022>
- Kaswan, A. (2003, March 1). Distributive Justice and the Environment. North Carolina Law Review 81(3). <http://scholarship.law.unc.edu/nclr/vol81/iss3/4>
- Khadka, N.S. (2021, November 8). COP26: Rich countries ‘pushing back’ on paying for climate loss. BBC News. <https://www.bbc.com/news/science-environment-59206814>
- Liddell, J.L., & Kington, S.G. (2021, January 14). “Something Was Attacking Them and Their Reproductive Organs”: Environmental Reproductive Justice in an Indigenous Tribe in the United States Gulf Coast. Int. J. Environ. Res. Public Health 18 (666). <https://doi.org/10.3390/ijerph18020666>
- Miller, S. (2019). Monitoring Migrants In The Digital Age: Using Twitter To Analyze Social Media Surveillance. 17 Colo. Tech. L.J. 395(17). http://ctlj.colorado.edu/wp-content/uploads/2021/02/17.2_8-Miller-9.10.19-final.pdf



- Morales, O., Grineski, S.E., & Collins, T.W. (2012) Structural violence and environmental injustice: the case of a US-Mexico border chemical plant. *Local Environment* 17(1), 1-21. [10.1080/13549839.2011.627321](https://doi.org/10.1080/13549839.2011.627321)
- NACEPT. (2016, December 16). NACEPT 2016 Report: Environmental Protection Belongs to the Public, A Vision for Citizen Science at EPA. <https://www.epa.gov/citizen-science/nacept-2016-report-environmental-protection-belongs-public-vision-citizen-science>
- Nicole, W. (2021, May 5). A Different Kind of Storm: Nat-ech Events in Houston's Fenceline Communities. *Environmental Health Perspectives* 129(5). <https://doi.org/10.1289/EHP8391>
- Nussbaum, M. (2013, May 13). *Creating Capabilities: The Human Development Approach*. Harvard University Press. <https://www.hup.harvard.edu/catalog.php?isbn=9780674072350>
- Paul, K. (2021, June 1). Human rights groups call for an end to digital surveillance of immigrants. *The Guardian*. <https://www.theguardian.com/us-news/2021/jun/01/human-rights-groups-call-for-an-end-to-digital-surveillance-of-immigrants>
- Pontecorvo, E. (2021, July 22). The next test for environmental justice policy? Defining 'disadvantaged communities.' *Grist*. <https://grist.org/equity/new-york-environmental-justice-policy-defining-disadvantaged-communities-clcpa-justice40/>
- Precarity Lab. (2020, November 24). *Technoprecarious*. Goldsmiths Press. <https://www.gold.ac.uk/goldsmiths-press/publications/technoprecarious-/>
- Sánchez-Monedero, J. & Dencik, L. (2020) The politics of deceptive borders: 'biomarkers of deceit' and the case of iBorderCtrl. *Information, Communication & Society*. <https://doi.org/10.1080/1369118X.2020.1792530>
- Táíwò, O. & Cibralic, B. (2020, October 10). The Case for Climate Reparations. *Foreign Policy*. <https://foreignpolicy.com/2020/10/10/case-for-climate-reparations-crisis-migration-refugees-inequality/>
- Whyte, K.P. (2011, May 30). The Recognition Dimensions of Environmental Justice in Indian Country. *Environmental Justice* 4(4). <https://ssrn.com/abstract=1855591> or <http://dx.doi.org/10.2139/ssrn.1855591>
- Williams, E., Dosemagen, S., & Hoerberling, K. (2021, December 10). *Opportunity Brief: Environmental Data as a Public Good*. Open Environmental Data Project. <https://www.openenvironmentaldata.org/research-series/environmental-data-as-a-public-good>

