2020 ANNUAL REPORT

July 13th, 2020

EDGI

**Environmental Data
& Governance Initiative**

2020 EDGI ANNUAL REPORT

Authors:

Marcy Beck

Rob Brackett

Steven Braun

Kelsey Breseman

Gretchen Gehrke

Stephanie Knutson

Kevin Nguyen

Eric Nost

Chris Sellers

Aparna Sundar

Jay Turner

Lourdes Vera

Kelly Wilkins

Sara Wylie

EDGI

Cover:

Paul Gordon

July, 2020

The Environmental Data & Governance Initiative (EDGI) is a North American network with members from numerous academic institutions and nonprofit or grassroots organizations, as well as caring and committed volunteers and contractors who come from a broad spectrum of work and life backgrounds. EDGI promotes open and accessible government data and information along with evidence-based policy making.

EDGI Environmental Data & Governance Initiative

https://envirodatagov.org
EnviroDGI@protonmail.com

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LETTER FROM OUR COORDINATING COMMITTEE

Our Annual Report celebrates and reviews EDGI's meaningful work in the last year. In this letter we wish to reflect on the enormity of the task at hand in this crucial moment of intersecting crises of social, racial, and environmental injustices and irreversible climate change, and to express our commitment to redoubling our efforts. Despite the earnest efforts of watchdog groups, journalists, and advocates from all walks of life, the Trump Administration has been disturbingly effective in rolling back environmental protections and dismantling federal agencies. In the face of the COVID-19 crisis, the EPA has abdicated another alarming share of its responsibility for enforcing environmental laws (see our commentary EPA's COVID-19 Leniency is a Free Pass to Pollute).

It is vital in this time to continue shining light on the erosion of public health and environmental protections, while also actively imagining and building toward more effective and more just forms of environmental protection. Such protections would move beyond permission-to-pollute regulations by embracing environmental and social justice, green chemistry, and renewable energy to work simultaneously toward restoring a habitable, biodiverse planet and building sustainable, just societies.

We at EDGI strive together toward different forms of research, community, and collaboration that enable healthier systems to flourish. In pursuit of that, we are envisioning and designing how environmental governance may be reconstructed more from the bottom up, including the role that data and community-led science could play in a Green New Deal. We have several forthcoming publications, in *Science for the People* and elsewhere, on these topics.

Complementing this vision, we seek to enact new public forms of networked public data analysis through a set of events called Environmental Enforcement Watch (EEW). EEW events will support congressional districts, watershed groups, environmental organizations, and environmental justice groups to document, analyze, and visualize violations of environmental laws, inspections, and enforcement activities under the Trump Administration. These events will explore and develop more meaningful and actionable forms of public engagement with environmental enforcement data. In response to EPA's COVID-19 memo that put enforcement actions on hold, we're

developing a set of EEW events that focus particularly on any increase in emissions during this crisis. Please reach out to us through environmentalenforcementwatch.org if you or your group are interested in organizing an EEW event.

An informed public is vital to the future of our democracy as well as our environment. Though the outcome of the November 2020 elections will impact the context in which we work, we are anticipating the range of possible outcomes with the strategic flexibility we have shown in the past. Our work will inform a new incoming administration if there is one, as well as the environmental and science committees of the House of Representatives and Senate. Regardless of the election outcomes, we also plan to continue highlighting issues for broad public consumption.

Over the next year, we will sustain this work while also laying vital groundwork for a brighter future for environmental data and governance in which justice and equity stand at the center. We will explore how environmental, climate, and data governance can work better for the most environmentally vulnerable particularly naming and analyzing racism as a key driver of health and environmental inequity. We continue to focus on holding governing agencies and industries accountable through transparent, collaborative, community-centered environmental research, technology, and decision-making. Internally we are working on our systems of horizontal organizing, collaborative decision-making, and remote-togetherness, sharing what we learn through our blog.

In this transformational moment we continue developing EDGI as an agent for collaborative environmental care and conscientious co-creation of just and sustainable futures. Thank you for your interest in our work.

EXECUTIVE SUMMARY

The Environmental Data & Governance Initiative (EDGI) has been a trusted source for reporting on governmental accountability around environmental data since 2016. Growing from its roots in guerilla data archiving, the organization now consistently monitors changes in environmental governance while also defining a vision for a more just approach to the gathering, communication, and oversight of environmental data.

Since our start in 2016, EDGI has influenced the national conversation by drawing upon our uniquely interdisciplinary and academically rooted expertise. We've addressed the executive branch through thorough public comments, white papers, and Congressional hearings with agency representatives. Our impartial research has been referred to by the legislative branch, including Congressional staff. We have reached the wider public through national media outlets such as *The New York Times, The Washington Post*, and PRI's *The World*. Among the greatest and most unique strengths of our work is that it is also vetted by, and published for, academic audiences through papers and conference presentations.

The past year has been one of enormous work and accomplishment on many fronts. We have grown and matured as an organization, made important contributions to highlighting the dismantling of federal environmental protections, and worked proactively to design models of environmental data justice. We have documented, contextualized, and analyzed current changes to environmental data and governance practices through multidisciplinary and cross-professional collaborative work; fostered the stewardship and expansion of public knowledge through building participatory infrastructures to make data and decision-making more accessible; and created new communities of practice to enable government and industry accountability.

Highlights of EDGI's work over the past year:

- We have built out our communications infrastructure: the articles published in just the last year which reference our work were viewed by an estimated **4.9 million readers**, and shared an estimated 439,000 times on social media.
- We have sought out and strengthened strategic partnerships, such as the Earth Science Information Partners (ESIP) and Internet Archive.
- We have consciously built upon our unique interdisciplinary capacity through projects that span our working groups. This is reflected particularly in our new initiative: a multifaceted approach to the Enforcement and Compliance History Online (ECHO), promoting justice by ensuring true accessibility involving bottom-up design and fair and caring data practices: a set of events called Environmental Enforcement Watch (EEW).

- We have taken important steps to achieve long-term organizational sustainability through process (e.g. implementation of contractor review) and work (e.g. stabilization of a fundraising committee).
- We have welcomed a new working group, the Environmental History Action Collaborative (EHAC), further rounding out our interdisciplinary capacity and context awareness.
- We have contributed to experiential learning through EDGI projects as part of university courses at Northeastern University, Stony Brook University, Princeton, and CUNY.
- We have continued producing original and important reports and publications, including summary reports on changes over time, such as [The New Digital Landscape: How the Trump Administration Has Undermined Federal Web Infrastructures for Climate Information](#), and a three-part series in progress that looks at the dismantling of federal environmental regulation, [An Embattled Landscape: Federal Environmental Science Integrity in the United States Today](#).

This work has been possible thanks to sustaining funding from the David and Lucile Packard Foundation and the Doris Duke Charitable Foundation, as well as contributions from a small but loyal group of individual donors. As in the past, we continue to rely on and benefit from the steady support and encouragement of our fiscal sponsor, the Public Laboratory for Open Technology and Science. Importantly, EDGI continues to be a volunteer organization, and the commitment of the many volunteer technologists, professionals, community members, students, and academics is what makes EDGI work on a daily basis.

This annual report is a place to learn about our work and celebrate where we've come from, what we've accomplished, and what we hope to become.

INTRODUCTION

EDGI operates in four synergistic areas to further our mission:
1. Monitoring and analyzing changes to federal data and regulations pertinent to environmental protection and governance

2. Documenting and effectively communicating those changes to the public
3. Envisioning and prototyping more just forms of environmental regulation, research, and enforcement
4. Prototyping new organizational forms for rapid, rigorous public-interest research

Figure 1: EDGI's Spheres of Work

MAINTAINING VIGILANCE & FOSTERING LEGIBILITY

EDGI monitors and analyzes changes to federal data and regulations pertinent to environmental protection and governance through the work of three of its working groups: Website Monitoring, which identifies, characterizes, and analyzes changes to thousands of government webpages; Policy Monitoring and Interviewing, which interviews those creating and affected by environmental policy, seeks government documents through FOIA, and comments on policy changes; and the Environmental History Action Collaborative, which sets current events into their historical contexts.

Policy Monitoring and Interviewing

EDGI's late 2018 [Sheep in the Closet](#) report led to a February 2019 Congressional hearing at which we testified. Building off of that success, EDGI's Policy Monitoring and Interviewing activities have since continued to diversify. We continue our original oral history-taking, interviewing EPA officials and retirees, and have added two more areas over the past year. First, we've extended the precedent of our "Sheep" research project on EPA enforcement by taking on other critical realms of environmental policy that are dramatically and critically impacted by Trump-appointed political leadership. To capture this additional sector of work, we've added "policy monitoring" to the group's name. Second, we've increasingly sought to look beyond policy monitoring, toward more future-oriented considerations. We are asking: What may it take to reconstruct the functionality and capacity of federal environmental agencies? And how may we better ensure a future for federal environmental data and governance that is more just, transparent, and democratic?

Our oral history project aims to make the transcripts of our first group of interviews publicly available by the 50th anniversary of the Environmental Protection Agency in December 2020. We conducted approximately 50 additional interviews over the past year, bringing our cumulative total of interviews over 150. We continue to seek additional interviewees among current and recently retired agency staff with the assistance of the Environmental Protection Network and the EPA Alumni Association. Over this past year, we completed coding of our first two years' worth of interviews, uploading them for confidential use by our research team in Dedoose. This summer, we plan to code the rest and begin preparing a web interface for public release of older transcripts—subject, of course, to interviewee approval and thorough de-identifying measures.

In addition to raw interview collection and processing through coding, we have projects underway to derive insights from these confidential interviews with EPA officials. One such project is a report summarizing the damage done to the agency under Trump and imagining possible futures for the EPA. This report will weave together interview material with extensive data on EPA staffing changes under Trump, obtained through Freedom of Information Act (FOIA) requests, thereby offering an unrivaled account of what has happened to this agency as a whole under Trump. To build vision for a future EPA, we are culling and analyzing the staff's visions for when and how the agency has

done its best work, and how that work may not just be restored but improved upon under an administration more committed to the EPA's mandate.

Following up on the issue of enforcement, EDGI has deepened its engagement with Enforcement and Compliance History Online (ECHO), the online database through which much of EPA's enforcement and related environmental data are made available to the public. Learning that EPA staff had a dashboard for accessing much of the same data that was more flexible and user-friendly, this working group sought for a public release of this needed tool. Though our FOIA request and subsequent appeal were both rejected by agency higher-ups, a dialogue thereby began with EPA staff in charge of ECHO about how better to make this data available.

As other EDGI working groups have also gotten interested in ECHO, a cross-EDGI ECHO project has taken shape that draws from not just Interviewing and Policy Monitoring but also our Environmental Data Justice and Archiving working groups as well. This spring, EDGI-affiliated instructors in four classrooms at very different institutions created ECHO-centered assignments for their students. Surveys of student experiences conducted across these courses have yielded abundant information about what it is like to use this database and how user experiences may be improved, which we are planning to take back to EPA officials and perhaps cull into an academic paper. Members of Policy Monitoring and Interviewing have also helped spearhead the downloading and compilation of ECHO data for public events being planned for this summer in collaboration with the Boston chapter of the Sunrise Movement, dubbed Environmental Enforcement Watch (EEW).

Another new project inaugurated in the last year is a public repository of documents received through FOIA over the Trump years by major environmental groups. This project builds on EDGI's early contribution to the Sierra Club-convened Environmental FOIA Coordinating Group, which connects FOIA-ing efforts of some 25 prominent environmental groups, and for which, from 2017 on, our volunteers created and maintained the group's ongoing tally of FOIA requests. In fall 2019, we initiated an additional collaboration to store documents received from these groups' FOIA-ing in a web repository entitled "[Toxic Docs](#)." Based at Columbia University and CUNY, this online, public, and keyword-searchable repository has until now concentrated on court documents produced through discovery in toxics torts. Having solved problems of document uptake and online storage and developed an effective publicly available

search engine, Toxic Docs had much to offer this project. Toxic Docs builders and developers, Columbia's Merlin Chowkwanyun and David Rosner and CUNY's Gerald Markowitz, readily embraced this additional purpose for what they had built. Sierra's legal team quickly saw the merits of having such a repository as well, since the government's own FOIAonline has a minimal search capacity, and none of the major environmental groups make an effort to share their FOIA'd documents with each other. By the time of this writing, the Sierra Club, the Wilderness Society, and EDGI itself had sent the results of their FOIAs to Toxic Docs. The opening of a new public portal for these has been delayed by COVID-related disruption; it will be opened sometime over the summer to enable searches through them.

This spring, EDGI began to publish a serialized report entitled An Embattled Landscape: Federal Environmental Science Integrity in the United States Today. This series began with surveys of efforts to curb the influence of environmental sciences on policy-making (part one), and to shear away scientific capacity (part two). A highlight in the media coverage of this series came with March 24's The Coronavirus and the Three-Year Trump Quest to Slash Science at the CDC, which was featured, among other places, in an article on the front page of the U.S. version of *The Guardian*.

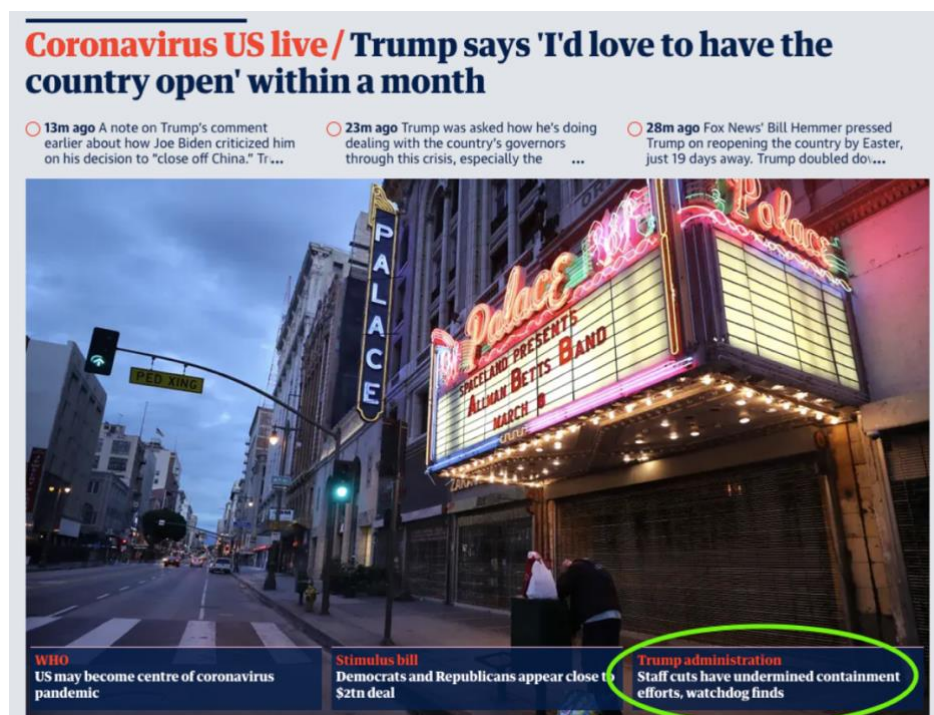*Figure 2: EDGI's work from "*The Coronavirus and the Three-Year Trump Quest to Slash Science at the CDC" *featured in a front-page* article *in The Guardian US.*

Two new ongoing research projects take on what we've found to be among the most assailed yet publicly neglected environmental policy arenas under Trump: children's health and environmental justice. Each of these two important policy arenas gained their own "office" at EPA headquarters in the 1990s, signaling a prioritization of these concerns. EDGI has traced the deprioritization of both under EPA's current political leadership.

Although public events featuring school buses portray Administrator Wheeler as committed to children's health, EPA fired the well-respected head of its Children's Health Office in late 2018 and has sought policies that ignore this most vulnerable of populations. EDGI's children's health research project has involved interviewing and extensive FOIA requests as well as an integrating look at publicly available information on Trump-era policies and strategies. This project will also suggest how our nation's environmental agencies and laws may be made to more rigorously and effectively protect the youngest among us.

The EPA's Office of Environmental Justice has also had a tumultuous time under Trump, from being transferred within the agency to losing staff and funds for grant-making. Our environmental justice research project situates these changes at the federal level within the understanding we've been developing of larger changes in the landscape of environmental justice activities around the nation during the Trump era. Some EDGI members have also involved their students and classrooms in parts of this study, at CUNY Law School and Stony Brook University. We've expanded our interviewing to include environmental justice activists as well as regional environmental officials in five representative states. The research also extends to FOIA'd documents from the EPA's Office of Environmental Justice as well as state environmental agencies, federal as well as state-based data on violations and enforcement, as well as close looks at recent local episodes of pollution around the country. Here as well, we aim not just to chart the trajectory of environmental justice problems and activism over the past few years, but to make recommendations about how federal environmental data and governance may be made more deeply and durably just.

The Environmental History Action Collaborative (EHAC)

The Environmental History Action Collaborative (EHAC) organized in the summer of 2019 to situate the Trump administration's environmental policy initiatives in relevant historical contexts and to draw on that context to offer timely contributions to ongoing policy discussions. EHAC, EDGI's newest working group, is primarily made up of historians whose research focuses on fields including the environment, public health, and policy.

In July 2019, EHAC members organized a panel for the American Society of Environmental History Annual Conference: "Environmental Historians Teach the Climate Crisis." Since the panel was accepted but the conference to be held in March 2020 was canceled due to the pandemic, they are currently planning a summer digital presentation.

Over September-November 2019, EHAC members researched and posted comprehensive annotations of President Trump's July 2019 speech describing the administration's first two years of environmental policy accomplishments. EHAC summarized and updated the fact-checking produced at the time of the speech and furnished context allowing for a more critical assessment of President Trump's environmental rhetoric and his administration's record.

In January 2020, EHAC members researched and published annotations of the Trump administration's release of its proposed rules for rolling back the National Environmental Policy Act (NEPA). The proposed rule changes undermine one of the Act's most effective provisions—the Environmental Impact Statement (EIS)—and limit public involvement in environmental decision-making.

Also in January 2020, EHAC members published an op-ed on the NEPA rollback in *The Globe Post* drawing on the EHAC annotated speech and accompanying research.

In February-March 2020, the working group synthesized previous EHAC annotations regarding NEPA into a formal EHAC/EDGI comment to the Council on Environmental Quality on the proposed NEPA rule changes. The public comments were submitted through the regulations.gov portal on March 9, 2020. EDGI then published a blog post based on the public comment.

Website Monitoring

Data and information created by the federal government are public resources, and the government has both the opportunity and the responsibility to provide access to those resources and assist the public in interpreting them. Federal agency websites are the primary means by which agencies communicate information to the public and guide public knowledge (OMB M-17-06). They reflect agencies' environmental, science, and information policies, and can shape public knowledge and opinion. To understand if and how government presentation of environmental information is shifting, and how that may relate to broader policies, EDGI has been monitoring changes to federal environmental, climate, conservation, and energy websites since January 2017.

EDGI's Website Monitoring Team consists of a software development team and an analyst team representing a broad swath of professional backgrounds and expertise that inform and bring fresh perspectives to our work. We rely on our partner, the Internet Archive Wayback Machine, to capture daily versions of more than 26,000 webpages identified by our team. Our software development team builds open-source software that imports archived versions of those webpages, compares and analyzes the differences between versions, and presents those differences visually through a web app. Each week, the tool generates a list of the web pages that have been altered in any way in the preceding week. The analyst team manually reviews those changes, assesses their significance, and catalogs them. The teams also have developed additional methods of website change analysis, including broad-scale analyses of the changing use of certain keywords, to hold the government accountable for its digital presence.

For the last three years, we have been developing the practice of website monitoring to hold the government accountable for its provision of information, especially as it relates to environmental policy. This past year we have enhanced our practice of website monitoring by evaluating it through a science and technology studies lens. A graduate class at Northeastern University joined our team and examined how website monitoring may affect agencies' relationships with the public. They published their findings that the practice of website monitoring in and of itself begets transparency and creates the space to demand more transparency and accountability from the government.

To more effectively hold the government accountable, this year we have leaned into the need to assess changes to agency websites rapidly and at scale, in part to complement

the individual changes observable through weekly monitoring. We [developed a method](#) for identifying keyword changes that have occurred across federal websites during this presidential term. We presented findings for keywords related to climate change in [A New Digital Landscape: How the Trump Administration Has Undermined Federal Web Infrastructures for Climate Information](#). This report showcased a thorough scrubbing of climate information across federal agency websites—especially those that have Cabinet status—and was featured in 14 news articles.
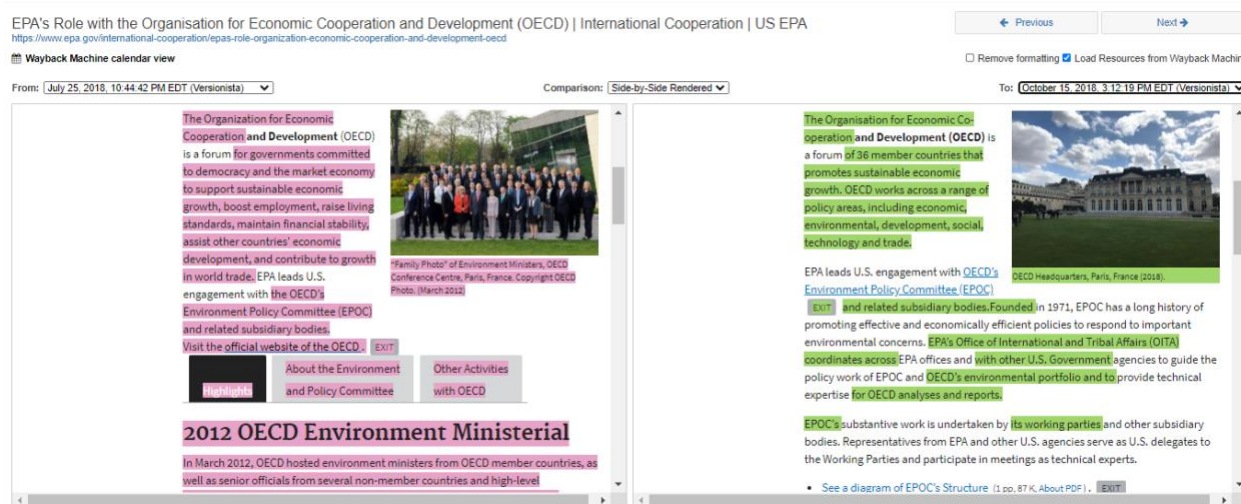

Figure 3: Scanner — EDGI's website monitoring software

This year we have also focused on synthesizing findings, allowing us to identify themes and patterns in changes to agency websites during this presidential term. Two overarching themes we have observed are a) the reduction in access to resources and b) the persisting insufficiency of accessible information. As a result, we have expanded our analyses and begun writing [reports](#) regarding federal governance of web-based informational resources, along with developing recommendations for information relevance, legibility, navigability, completeness, and maintenance. In addition to reports and other written outputs, we are developing a community of practice regarding government information accessibility. In collaboration with the Union of Concerned Scientists' Center for Democracy & Science, we convened a session at the annual American Geophysical Union meeting entitled [Science for All? How Governments Can Make Science Accessible](#), which included presentations from academics, nonprofit organizations, and government agencies. Presenting [our own findings](#) there, we argued that federal agencies must make information available, discoverable, navigable, and contextualized.

Exercising our civic rights and duty, we have addressed agencies with requests for information accessibility and agency accountability through public comments on proposed regulations. Our comments on proposed changes to the landmark environmental rules the [Waters of the United States Rule](#) and the [Migratory Bird Treaty Act](#) focused explicitly on information access. In both cases, agencies not only failed to provide adequate information to the public regarding the proposed rule changes and their potential impacts, they also removed resources that had previously been available to help the public understand those rules, their purpose, and their implementation. Additionally, we prepared a public comment highlighting the ways in which EPA is wielding the concept of accessibility and transparency as an attack on scientific information through the proposed Strengthening Transparency in Regulatory Science rule and [its recent expansion](#). Finally, in collaboration with the Environmental History Action Collaborative working group, we submitted a public comment repudiating the proposed revisions to the [National Environmental Policy Act](#), in which we identified the ways those proposed revisions could drastically reduce information quality, information access, and opportunities for public involvement in environmental decision-making.

Website Monitoring is proving to be a critical component of public awareness about federal approaches to establishing or undermining public information, and our software development team has focused much of its work over the past year on capacity-building for this field. Within EDGI, the team has made significant improvements in automatically prioritizing changes for analysts and in developing tools for broad-scope investigations of all the changes we've seen.

Externally, our approach to open-source development has led the Internet Archive to integrate our comparison software directly into the Wayback Machine as a [publicly available feature called "Changes,"](#) and the team has also published [tools](#) other researchers are now using to search for and load data in the Wayback Machine.
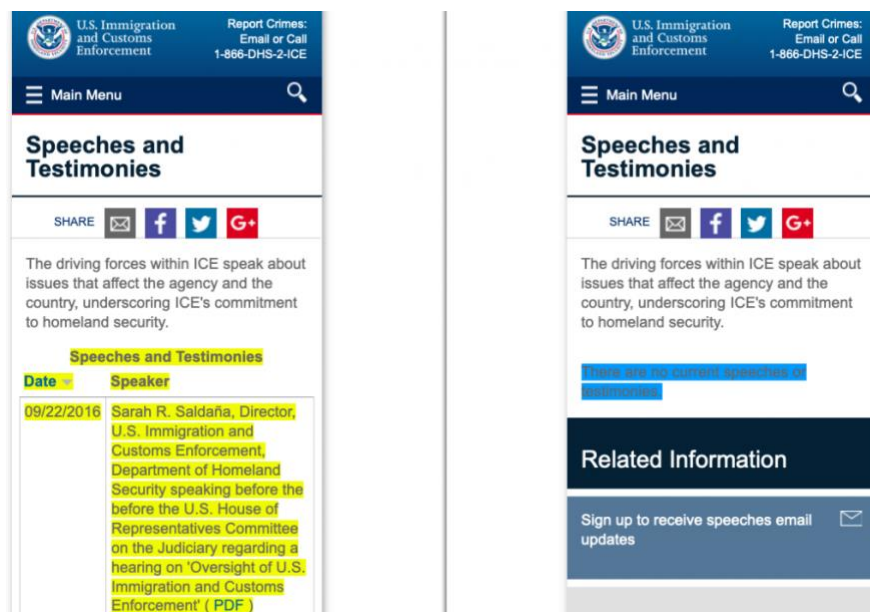
Figure 4: EDGI's change comparison software integrated directly into the Internet Archive's Wayback Machine as a public feature called "Changes"

The coming year will be a pivotal one for many reasons across the country. In the Website Monitoring Team, we will be approaching our work with an orientation toward solutions: documenting, synthesizing, analyzing, and proposing ways to address systemic issues uncovered by our website monitoring work. We will also be opening up our work so that others can utilize it as well. We are focusing our efforts on web resource governance and the intersection of information policy and environmental policy. We'll soon be posting a public database of the important website changes we've observed over the last three years, and will be publishing an open-access paper describing our exploratory methods to document and analyze the federal government web presence at scale.

VISIONING & BUILDING ALTERNATIVES FOR SOCIALLY JUST ENVIRONMENTAL GOVERNANCE

EDGI's original work focused on archiving and accountability, but critique alone is not enough to create the environmental data governance futures necessary to advocate for social justice. The interdisciplinary nature of EDGI's work gives us a unique perspective to imagine solutions that are context-aware, technically sound, theoretically informed,

and grassroots tested. Growing from a base in citizen science and an academic concept of "environmental data justice, " EDGI seeks to provide vision and prototyping of more just forms of environmental regulation, research, and enforcement.

Environmental Data Justice

This working group looks at the intersection of Data Justice and Environmental Justice. We are working to define how these two fields intersect and can work together in mutually supportive ways. This year we held two events to bring environmental justice and data justice groups into conversation. The EDJ: Visions and Values event organized by EDGI's Environmental Data Justice (EDJ) working group in late February 2019 continued to prove generative for our work through 2019. Our blog post about this event inspired work on a public EDJ syllabus, which we released and distributed throughout this past year. This syllabus is an ever-changing and dynamic document: anybody can add or suggest readings. We posted it online, through social media, and distributed paper copies to friends and colleagues, as well as publicly at the September 2019 Climate Strike in Seattle.

Over the summer, we co-hosted an online youth-led environmental justice summit with ECO (Environmental Chelsea Organizers), a youth group that works with the Chelsea, MA environmental justice organization GreenRoots. EDGI assisted ECO in planning the event, and ECO developed the Eventbrite, branding, and logos. ECO invited a great lineup of speakers, including the Detroit Area Youth Uniting Michigan (DAYUM), the Sunrise Movement (National), Sunrise Movement Boston, and EDGI. We live-streamed the event on Facebook and YouTube so that the public could participate. The event was held on November 16, 2019, and connected environmental justice groups in Boston and Detroit. It also formed the foundation for our collaboration with Sunrise Boston for the summer 2020 EEW events.

Figure 5: EJxYouth Summit speakers — Tayiona White (DAYUM), Casey Greenleaf (Sunrise Movement Boston), Jeremy Ornstein (Sunrise Movement National), and Michael Johnson, Brooke Solomon, Ashley Johnson, and Julia Cuneo (DAYUM).

At the end of the summer, EDGI member Lourdes Vera presented on the theoretical underpinnings of EDJ at the American Sociological Association annual conference in New York, NY on an environmental sociology section panel. Vera also discussed the principles of Environmental Data Justice and the work of the EDJ working group during the panel "Technology, Violence, and Resistance: Feminist, Decolonial, and Intersectional Perspectives" at the Society for Social Studies of Science (4S) conference in New Orleans. EDGI member Michelle Murphy also gave a workshop at 4S where attendees tested the EDJ environmental health mobile app that is being developed by the EDJ lab at the University of Toronto's Technoscience Research Unit (TRU). Vera also presented on EDJ during the citizen science session at an Earth Science Information Partners (ESIP) meeting, an organization that we have recently joined.

While planning these events, we began to review the EPA's Enforcement and Compliance History Online (ECHO) website as it exemplified many of the concerns we have about environmental information presented by the federal government. This soon became an All-EDGI initiative (as also noted in the section on Policy Monitoring and Interviewing).

In planning the ECHO events, EDGI's Archiving working group led small workshops on getting set up with GitHub, making a repository, and creating a GitHub team for EDJ. Kelsey Breseman of the Archiving working group also set up Jupyter notebooks to extract relevant data from ECHO according to parameters of interest such as zip code. EDJ has also prototyped a website and purchased a domain name.

Soon, these steps towards ECHO analyses turned into larger plans for a series of DataRescue-like public events. We outlined tracks for the event, drafted research questions, sought partnerships, and applied for grants from the Rita Allen Foundation and Northeastern University's NuLab. So far, we have received $2,500 from NuLab for this project.

Three EDGI members have integrated this ECHO event planning and investigations into their university classes (described later in the report). Students are learning how to use ECHO and document the problems that they encounter with the data and user interface while assessing data integrity, accessibility, and accuracy. Sara Wylie's independent study students Cole Adler and Casey Greenleaf are now partners in the planning of this project.

As an organization, we look forward to a year where these events come to life and communities across the country can learn how to work with and critically assess environmental data and governance with EDJ principles in mind.

Archiving

In 2019, EDGI's Archiving program did some rapid-response data archiving, continued to develop a vision for a decentralized future for data, and built coalitions and partnerships across archival and technology-focused groups.

Though direct archiving is no longer the major focus of EDGI's Archiving Program, the working group did seed data in danger of losing its hosting onto archival sites in response to two events: a chemical fire with potential conflict of interest around air quality data (notably the carcinogen benzene) and the retirement of ToxNet and ToxMap. A majority of this archiving consisted of seeds and scrapes to the Internet Archive—EDGI's long-time partner in archiving web pages—by Rob Brackett. Some of the structured data from the chemical fire was seeded to EDGI's partner Qri, a

decentralized home for datasets, by Brendan O'Brien. O'Brien founded the company Qri based partly on his experiences with EDGI's DataRescue events, to be a better home for publicly held data. The Brooklyn-based startup is in its third year producing free and open-source software for data version control.

Use of Qri is just one part of EDGI's exploration into the decentralized web—a growing set of technology tools that could represent a future where each user of the Internet has power over the data they value, rather than relying on current Internet monopolists Facebook, Google, and Amazon as privately-owned holders and mediators of Internet content, or on a publicly-owned institution such as the United States government which may not hold public trust. In 2019, EDGI members attended the Internet Archive-hosted DWeb Camp, started a Seattle-based Decentralized Web meetup (187 members so far), and published a primer on how the decentralized web works. EDGI also continued to maintain the Data Together group, a partnership between EDGI, IPFS, and Qri which hosts regular reading groups at the intersection of civics, ethics, and data technology. 2019 discussions were captured in blog posts: Knowledge Commons, Civics, Alternatives to Capitalist Structures, Stewardship, and Decentralization. The participant group grew this year to include (in addition to the hosting partners) contributors to Dat and Filecoin, as well as people in the broader Decentralized Web community.
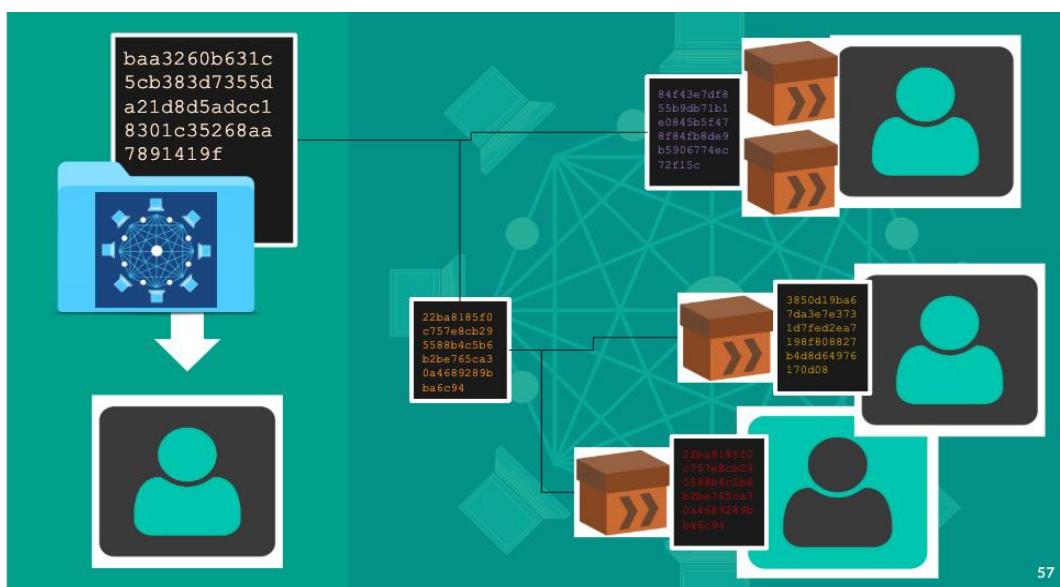

Figure 6: A slide from a Data Together presentation explaining how files are retrieved over the IPFS decentralized web protocol

In addition to the Data Together partnership, EDGI's Archiving program has been a site of active partnership building. An in-progress project to map out groups in the data-archiving space, conducted in partnership with Science2Action Community (S2AC)'s Anne Waple, has been a platform to reach out to people at several other groups concerned with data archiving. These one-on-one discussions focus on identification of common challenges and areas of potential collaboration. One such discussion, with the Earth Science Information Partners (ESIP) resulted in EDGI becoming an ESIP partner. EDGI's Archiving Program Lead Kelsey Breseman is now co-chair of ESIP's Data Stewardship committee, and worked with ESIP to coauthor a paper outlining a Data Risk Matrix, which has been published in the *Data Science Journal*. Also through the project with S2AC, EDGI has facilitated introductions between ESIP, S2AC, Data Together, Protocol Labs, and the Preservation of Electronic Government Information (PEGI) project. EDGI has spoken with each of these groups about the potential for decentralization technology to distribute public control over data.

Justice and ethics through data have been a consistent focus in EDGI's work through Data Together discussions. EDGI's work moving into 2020 expands on this through close collaboration with EDGI's EDJ group, more public-facing talks around the decentralized web, and continued cultivation of the Data Together community to highlight data justice issues. Data Together's 2020 reading group theme is "Polity" and begins with a discussion of Algorithmic Racism & Environmental Data Justice, centering practices of marginalization through data to a reading community primarily composed of technology builders. The Seattle Decentralized Web meetup's first tech talk of 2020 featured Kelsey Breseman discussing decentralized web technology and the impact of poorly stewarded data on communities and the environment (slides).

Beyond just the storage of data, justice-focused archivists must ensure data is accessible across communities. EDGI's Archiving program is supporting investigations across EDGI working groups into EPA's Enforcement and Compliance History Online (ECHO) data and website. This includes an investigation into the ECHO site's user experience (UX) (currently in data collection across a few university classes) and a data science tool which circumvents the ECHO site's interface to create localized reports on the facilities, permits, emissions, and compliance history in a region. These are the beginning of a data-based push for accountability and enforcement that is a major focus for EDGI as a whole in 2020.

PROTOTYPING AN ALTERNATIVE ORGANIZATIONAL STRUCTURE

EDGI's work is not aimed only at stronger community engagement and accountability in governance. One of its major areas of work is internal— prototyping new organizational forms for rapid, rigorous public-interest research. To this end, EDGI operates through a Strategic Coordinating Committee, which makes major decisions through a consensus-based process, and uses the advice process for more quotidian decisions to allow for individual initiative.

Alternative Organization

In January of 2019, a new working group formed to focus on continuous improvements in organizational effectiveness—following an in-person meeting and an Organizational Effectiveness grant received from the Packard Foundation. Core questions under examination have been:

- How do we best recruit and engage our members?
- How does EDGI best embody its values?
- How can we fairly decentralize decision-making authority while maintaining efficiency?
- How do we help EDGI members work within and not beyond their capacity?
- How can we make sure our membership feels appreciated and valued for the work they do?

Work in this group takes a few forms:
- Research and reading around other organizations' approaches to challenges
- Discussion within the group to identify problem spaces and ideate approaches to address them
- Organizing our community to strengthen relationships and implement our strategies and tools
- Writing and editing protocols and processes that clarify roles, definitions, and approaches

The working group embraces an explicitly experimental approach to problem solving: identifying challenges, hypothesizing solutions, and checking in on outcomes after a set period to reflect and iterate on the approach.

In its first year, the group has been a home for some critical process development, including designing a system for paid contractors' review and renewal. In its work on membership, the group drafted a Handbook for new members, designed and implemented an onboarding flow, and outlined a definition of what is required versus encouraged for members and coordinating committee members.

The group also hosted an in-person meeting in the fall of 2019 in New Orleans. Over two days of structured workshops, the working group members helped EDGI set goals for long-term vision, worked through capacity challenges, and set strategy around the next year's fundraising. Just as important, the in-person meeting created a space for EDGI's all-remote and mostly-volunteer membership to connect in person and build the relationships that are essential to EDGI's decentralized, high-trust operation.

Figure 7: EDGI In-Person Meeting, New Orleans, September 2019

Some of the most successful experiments from the working group are explicitly a part of building those relationships, and have been adopted across EDGI: reserved time at the

beginning of meetings for a "check-in" question, a buddy system where new members are paired with someone within EDGI for questions and active welcoming, a Slack channel to share accomplishments (your own or others'), and a spreadsheet to help people clarify their upcoming availability.

One of the practices led by the working group is the "Spark meeting." This is an optional-attendance no-homework meeting where an EDGI member chooses a topic (internal or external to EDGI) that they have been working on. Typically, these meetings spark discussion around potential collaborations, or help the presenter get feedback on the project. They're also a useful way for members to learn about work outside of their normal sphere of operation.

EDGI has drawn much inspiration and experience from the organizational practices of other groups. This year, this working group hopes to seed back into that ecosystem by publishing elements of EDGI process and protocol. Our authorship protocol was made public in this spirit early this year. Our check-in process and membership expectations are additional early candidates for publication.

Check-ins at Meetings

Hypothesis: A brief, human moment at the beginning of each meeting can help us fully arrive & feel closer to each other

Method: Facilitator picks a simple question (what's a word to describe how you're feeling? What's an aroma that makes you happy? what's something you're looking forward to this week?) for everyone to answer as first item on the agenda

Expected Outcome: We take a moment in our 5th gathering where this is used to silently reflect & then discuss what we like about this, what we don't like, whether it's something we'd like to spread to other EDGI groups

Start date: 1/30/2019

Check outcome: 3/27/2019

Figure 8: A few pages from the Lab Notebook showing a concluded experiment "Check-ins at meetings".

In the next year, the group plans to devote significant time to improving the membership experience, ideating around capacity challenges and re-engaging lapsed contributors. The group plans to continue focusing on EDGI's community and social base. Though an in-person meeting was in the works for June, this working group is embracing the challenge of COVID, hosting happy hours and virtual lunches while also redesigning the June meeting to occur online.

COMMUNICATING & ENGAGING IN VARIOUS SPHERES OF INFLUENCE

The reach and impact of EDGI's work depends on coordinated communication within and outside of EDGI and on our relationships with our partners and allies. Over the last year we have worked on building our capacity to support and improve our work in these areas. This is the focus of our Communications working group, which helps facilitate the development and publication of writing outputs, manage our social media and media relations, and identify and cultivate partnerships with like-minded organizations and policy-makers.

Communications and Partnerships

As part of our Organizational Effectiveness process in 2019, funded by a Packard Foundation grant and facilitated by two consultants, we identified communicating and engaging in various spheres of influence as a key strategic area in which EDGI lacked capacity, both in terms of regular day-to-day communications work (such as managing our social media accounts), and our longer-term communications strategy (such as building partnerships). Following this process we identified several critical communications objectives:

1. Increase and expand EDGI's external communications to share the organization's work in engaging and accessible ways
2. Strengthen EDGI's internal communications to make more visible and legible the activity of each of its working groups
3. Consolidate EDGI's partnerships with like-minded organizations and networks
4. Develop EDGI's partnerships with relevant policy-makers and public campaigns.

In order to carry out this work, we've since hired a Communications Coordinator and a short-term Partnerships consultant, who have been helping us develop the guiding strategy and internal processes to achieve these objectives.

Over the last year, as our Communications team has helped us share the findings of our investigations and reports with key stakeholders and the public, our reputation and influence within various spheres has continued to grow—from journalism, to science and environmental advocacy groups, to the halls of Congress. Our work has prompted the publication of new news reports, some featured in top outlets like *Newsweek* and *The Guardian*, and over 250 national and international articles now reference our work.

We are also working on increasing and expanding our external communications and the reach and impact of our work by building our organization's social media presence. Connecting directly with the public and our partners on a daily basis allows us to share our work with a growing audience and collaborate regularly with like-minded organizations and allies. And within these channels we've been working towards communicating our work in interesting and digestible ways, with the hope of broadening our reach and informing people of the ways in which issues of environmental policy and environmental data governance impact their lives. To assist

our Communications team with this EDGI has recently added a Social Media Intern to our team.
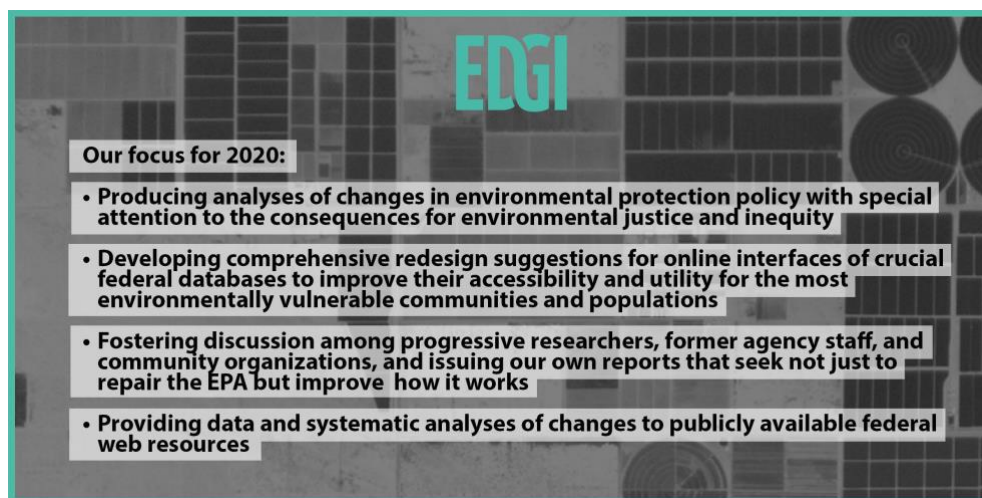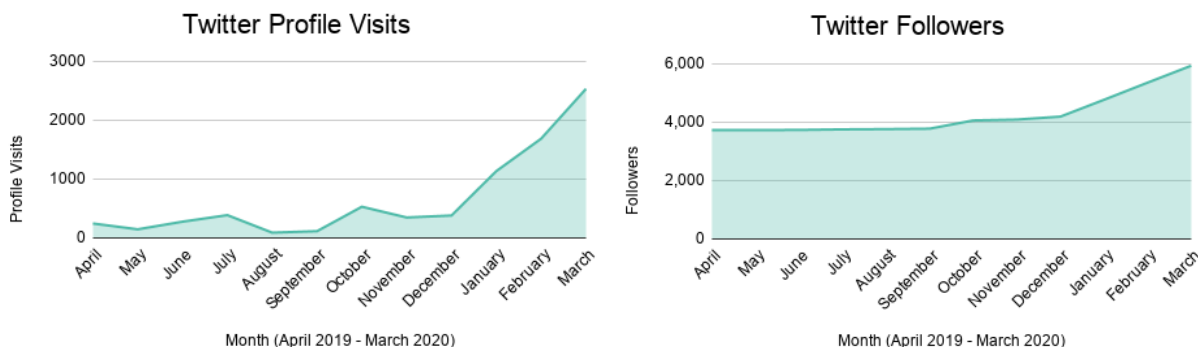

Figure 9: EDGI Social Media Graphic

Our Twitter audience is our largest audience across social media platforms. There we have 6,300+ followers and our account is making ~ 62,500 impressions and gaining ~ 360 new followers every month (based on previous 6 month averages). Promisingly, we've in general seen steady monthly increases in many important metrics, such as our profile visits, follower growth, likes, and engagement rates. In March our account saw 2,529 profile visits—the largest amount we've ever received and 3.8x our annual average—and our shared content received more likes than it has in any previous month.
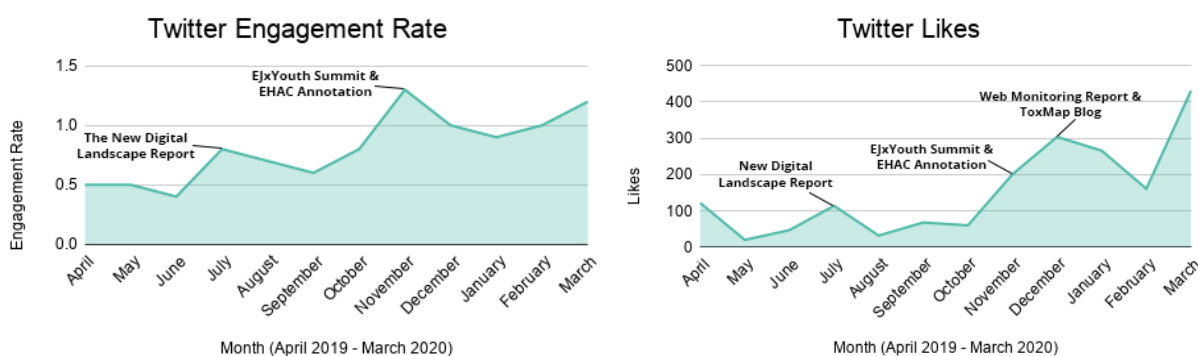
Figure 10: Graphs of EDGI's Twitter analytics from April 2019 to March 2020

The peaks of activity in our engagement rate and likes mark online events and times we shared our most popular publications and the resulting news articles.

Over time EDGI has built an expansive network of members, including representation from academia, city and state governments, and from an array of research, technology, and non-profit organizations. EDGI also collaborates with diverse environmental advocacy groups, commercial and civic technology developers, and a wider interdisciplinary community of web archivists, data justice activists, science and technology scholars, and humanities and social science scholars.

This past year EDGI continued to work in collaborations addressing access to environmental and climate information and scientific data, including the Earth Science Information Partners, the Union of Concerned Scientists, Preservation of Electronic Government Information, Science 2 Action Community, and Public Lab. Through the development of our custom open-source software Scanner, and the Data Together community, EDGI also maintained partnerships with organizations such as Protocol Labs, Qri.io, and the Internet Archive, as well as a distributed community of open technology developers. Our interviewing work involved working with current and recently retired staff of U.S. environmental agencies and the nonprofits that support them such as Public Employees for Environmental Responsibility. EDGI's work on Environmental Data Justice continued to build relationships with and draw inspiration from other data justice groups, such as Data for Black Lives, the Detroit Digital Justice Coalition, and the Data Justice Lab in Cardiff, Wales, as well as youth groups such as the ECO Crew.

Building on this strong foundation, in 2020 EDGI added strategic partnerships capacity to explore and further expand opportunities where its work may hold broader

application for additional audiences—including environmental justice and advocacy organizations, state and local governments, research organizations and academia, and the media, among others. As a result, EDGI is working to map the landscape of these communities, and further refine its communications and outreach strategies and outreach materials, in support of connecting with, and further reaching these audiences. For instance, we have developed outreach templates, resources, and toolkits to prepare for engaging, onboarding, and collaborations with new organizations in connection with the Environmental Enforcement Watch project to be launched this summer. Likewise, we are exploring how EDGI's academic and other writing might be used to conduct outreach to prospective collaborators, the media, and other audiences.

Publications

EDGI continues to place a priority on timely, public-oriented writing, while also pursuing publication in academic journals. In the past year we published a major report detailing how federal environmental websites altered the use of terms related to climate change; several website monitoring reports detailing both access assessment and content change; four public comments; an op-ed; and numerous blog posts. EDGI members also co-authored two more peer-reviewed articles in scholarly journals.

Because accessibility is important to us, the vast majority of EDGI's outputs remain open and available to the public—from the code we produce to our writing outputs, including our white papers, guides, toolkits, website monitoring reports, and blog posts.

Reports

[An Embattled Landscape Series, Part 2a: Coronavirus and the Three-Year Trump Quest to Slash Science at the CDC](#)

March 23, 2020

The administration of President Donald Trump has repeatedly undermined science-based policy as well as research that protects public health. That undermining has eroded our government's capacity to respond to the coronavirus — from the White House itself to the labs and offices of the Centers for Disease Control (CDC), the federal government's lead agency for science-based public health. The Trump administration's widely-reported disbanding of the National Security Council's directorate charged with global health has, according to many experts, hobbled the United States' efforts against this pandemic. So have budget cuts at the CDC. Yet the U.S. would

be far less prepared had Congress followed the White House's drastic proposals to cut even more of the CDC's budget. Moreover, we would be investing less to understand and prevent those chronic diseases that kill most Americans and that make Americans more vulnerable to the coronavirus.

[An Embattled Landscape: Federal Environmental Science Integrity in the United States Today, A Three Part Series — Part I: Targeting Scientific Influence on Policy](#)
March 1, 2020

In this report, the first of a three-part survey of the many resultant challenges to the integrity of environmental science across our federal government, we show a substantive and intentional reduction of the influence of science and scientists on environmental policy-making over the last four years. Among the 95 rollbacks of environmental rules and regulations, the most sweeping take explicit aim at science's current and future role in official decision-making. We tally the extent to which science advisory committees have been reconstructed, and to which EPA Administrator Andrew Wheeler has favored input from industry and trade groups over those with staff scientists and more pro-regulatory NGOs (as evidenced by FOIA'd documents and interviews, as well as his calendar of meetings). We situate this clear de-prioritization of science-based regulation within a larger landscape of people and institutions pushing back, from federal scientists themselves to academic scientists and the court.

[The New Digital Landscape: How the Trump Administration Has Undermined Federal Web Infrastructures for Climate Information](#)
July 22, 2019

In The New Digital Landscape, we report on EDGI's analysis of more than 5,300 webpages from 23 federal agencies, and analyze how the Trump administration has severely weakened public access to climate change information and the language used to present it.

[Update of Sheep in the Closet Report — EPA Enforcement Record in the Trump Administration through Fiscal Year 2018](#)
July 2019

This is an updated version of "A Sheep in the Closet: The Erosion of Enforcement at the EPA," first released in November 2018, that draws on the release of official enforcement numbers for the fiscal year 2018. The updated report expands and bolsters the analysis in the original report, using a broader range of enforcement metrics, a longer time span, and published numbers that are easy to verify. Our updated analysis strengthens the conclusion that enforcement at the EPA under the Trump administration has been historically weak.

[Web Governance Analysis of Changes to the EPA's Unconventional Oil and Gas Extraction Effluent Guidelines Webpage](#) ([screenshots](#))
December 10, 2019

This report covers changes made to the EPA's Unconventional Oil and Gas Extraction (UOG) Effluent Guidelines webpage between July 1 and July 5, 2019, including the removal of information relevant to UOG extraction wastewater management and the final rule's enforcement. The webpage provides contextual information regarding the promulgation of EPA's final rule prohibiting the discharge of UOG extraction wastewater into Publicly Owned Treatment Works (POTWs) and the extension of the implementation deadline of this rule for some UOG operators in Pennsylvania. However, as of the date of this report, the webpage does not contain sufficient information for a public audience to understand EPA's regulatory actions.

Public Commentaries, Op-Eds, Blogs

[EPA's COVID-19 Leniency is a Free Pass to Pollute](#)

April 14, 2020

On March 26, 2020 EPA released a memo suspending permit enforcement for industries that claim to have been impacted by COVID-19. This memo has already rightly been called out as an unprecedented relinquishment of power. EDGI joins this important critique: suspending enforcement under trying circumstances may sound like a reasonable leniency, but only if you make two incorrect assumptions: (1) that there will not be negative health consequences from the suspension of the permits that regulate releases of health-harming chemicals; and (2) that EPA is capable of reviewing and evaluating paperwork that facilities will submit to show that they have made their "best effort" to conduct environmental monitoring during the COVID crisis – an additional task on top of enforcing permits, which they fail to do even in normal times. The

disastrous anti-regulatory approach of the current administration's EPA indicates that the agency will take every opportunity to avoid enforcing statutory regulations.

Collaborative Authorship: EDGI's Values-First Approach to Attribution
April 2, 2020

One of this year's initiatives for EDGI's working group on organizational structure is to more publicly share some of our organization's modes of work, adding to a growing conversation around remote work, collaboration, and non-hierarchical decision-making. EDGI's Authorship Protocol is inspired and guided by CLEAR Lab's feminist, anti-colonial approach to research and intellectual attribution that "emphasizes process and equity rather than system and equality" (Liboiron et al. 2017, 3). The protocol we use is a pragmatic guide but it is also a short encapsulation of our philosophy. The way we approach those questions exemplifies for us a way of thinking that translates our core values into courses of action.

EDGI's Take on Proposed Revisions Undercutting the Migratory Bird Treaty Act
March 19, 2020

EDGI welcomed the opportunity to comment on the U.S. Fish and Wildlife Service (FWS) Proposed Rule: Migratory Bird Permits; Regulations Governing Take of Migratory Birds (Docket No. FWS-HQ-MB-2018-0090) in March 2020. This rule would narrow the scope of the Migratory Bird Treaty Act (MBTA) to only prohibit direct and intentional actions taken against migratory birds and their eggs or nests, instead of its scope historically interpreted to prohibit the killing of migratory birds even unintentionally (known as "incidental take"). Our comment document, Public Access to Federal Information Relevant to Incidental Take under the Migratory Bird Treaty Act is Insufficient for Engagement in Rulemaking and for the Public Record, addressed removals, omissions, and revisions of Migratory Bird Treaty Act (MBTA) resources, including those related to incidental take, that constrain the public's ability to effectively participate in the rulemaking process. These resource removals also constitute an abandonment of the Department of Interior's (DOI's) responsibility to maintain and preserve the regulatory public record.

EHAC / EDGI public comment on proposed changes to the National Environmental Policy Act (NEPA)
March 9, 2020

The Environmental History Action Collaborative (EHAC), a working group of EDGI, submitted public comments to the Council on Environmental Quality (CEQ) on proposed changes to the National Environmental Policy Act (NEPA) on March 9, 2020. In January 2020, the Trump

administration [proposed](#) dramatic regulatory changes that, if instituted, will undermine one of the nation's most effective environmental laws, the National Environmental Policy Act (NEPA). The Act, celebrating its 50th anniversary this year, is a cornerstone of the laws and regulations put into place in the 1970s to protect the environment and public health. The law, which has been one of the most effective federal environmental laws, established the CEQ to oversee NEPA implementation and advise the President.

[Environmental Data & Governance Initiative (EDGI) Response to the Request for Public Comment on Draft Desirable Characteristics of Repositories for Managing and Sharing Data Resulting From Federally Funded Research](#)
March 9, 2020

EDGI promotes open and accessible government data and information along with evidence-based policy making. EDGI supports this OSTP effort to make data from federally funded research more available and accessible. Our comments focus mostly on the importance of version-control, data accessibility, and facilitation of data utilization. We address specific RFC elements as enumerated in the published Request.

[Remarks by President Trump on Proposed National Environmental Policy Act Regulations — Annotated](#)
January 15, 2020

Just over fifty years ago, President Richard Nixon signed the landmark National Environmental Policy Act into law, requiring consideration of environmental impacts in all federally run or funded projects. On January 9, President Trump joined with appointed leaders of his environmental agencies to unveil a through-going revision of the rules for implementing this law. Their speeches, along with the rule revision itself, thrust many environmental considerations decisively into the back seat. In this annotation of the proceedings, the Environmental History Action Collaborative — a group of environmental historians and scholars — summarizes and updates the fact-checking by journalists, while supplying broader and deeper context for what was said, and also not said.

[Goodbye to ToxMap—and Our Environmental Right-to-Know](#)
Posted December 11, 2019

On December 16, the National Library of Medicine is retiring the revelatory environmental mapping tool known as ToxMap. Ever so quietly, the door will close on what has arguably become the most accessible and user-friendly portal created by the federal government for

letting Americans know about the toxics lurking next door. Instead of a front-page map with locations, toxic releases, enforcement actions, and health effects all available at a glance and a click, the only substitutes provided by the government are harder to find, often more partial and difficult to navigate, and frequently culminate in eye-glazing spreadsheets of numbers. With very little ado, access is corroding to a kind of information that is all Americans' right to know.

[Remarks by President Trump on America's Environmental Leadership—Annotated](#)
Posted November 5, 2019

The rationales offered by the Trump Administration for withdrawing from the Paris Climate Agreement echo a widely publicized speech by Trump in July 2019 that may well foreshadow the environmental messaging of his 2020 reelection campaign. As media fact-checkers then noted, Trump's speech misrepresented his administration's ongoing work to weaken the laws and regulations that protect the nation's public health and environment, now nearly three years in. Less noted, Trump distorted our nation's longer history of environmental protection as well as his presidency's place in that history. In this analysis, the Environmental History Action Collaborative—a group of environmental historians and scholars—summarizes and updates the fact-checking and furnishes context allowing for a more critical assessment of President Trump's environmental rhetoric and his administration's record.

Peer Reviewed Articles

[Risk Assessment for Scientific Data](#)

Matthew S. Mayernik , Kelsey Breseman, Robert R. Downs, Ruth Duerr, Alexis Garretson, Chung-Yi (Sophie) Hou, Environmental Data Governance Initiative (EDGI) and Earth Science Information Partners (ESIP) Data Stewardship Committee, EDGI
Data Science Journal, 19(1), p.10.

Ongoing stewardship is required to keep data collections and archives in existence. Scientific data collections may face a range of risk factors that could hinder, constrain, or limit current or future data use. Identifying such risk factors to data use is a key step in preventing or minimizing data loss. This paper presents an analysis of data risk factors that scientific data collections may face, and a data risk assessment matrix to support data risk assessments to help ameliorate those risks. The goals of this work are to inform and enable effective data risk assessment by: a) individuals and organizations who manage data collections, and b) individuals and organizations who want to help to reduce the risks associated with data preservation and stewardship. The data risk assessment framework presented in this paper provides a platform from which risk assessments can begin, and a reference point for discussions of data stewardship resource allocations and priorities.

[Learning in Crisis: Training Students to Monitor and Address Irresponsible Knowledge Construction by US Federal Agencies Under Trump](#)
Chris Tirrell, Laura Senier, Sara Ann Wylie, Cole Alder, Grace Poudrier, Jesse DiValli, Marcy Beck Eric Nost, Rob Brackett, Gretchen Gehrke
Engaging Science, Technology, and Society, [S.l.], v. 6, p. 81-93, Jan. 2020. ISSN 2413-8053.

Immediately after President Trump's inauguration, US federal science agencies began deleting information about climate change from their websites, triggering alarm among scientists, environmental activists, and journalists about the administration's attempt to suppress information about climate change and promulgate climate denialism. The Environmental Data & Governance Initiative (EDGI) was founded in late 2016 to build a multidisciplinary collaboration of scholars and volunteers who could monitor the Trump administration's dismantling of environmental regulations and science deemed harmful to its industrial and ideological interests. One of EDGI's main initiatives has been training activists and volunteers to monitor federal agency websites to identify how the climate-denialist ideology is affecting public debate and science policy. In this paper, we explain how EDGI's web-monitoring protocols are being incorporated into college curricula and how, in this way, EDGI's work aligns with STS work on "critical making" and "making and doing." EDGI's work shows how STS scholars can establish new modes of engagement with the state that demand a more transparent and trustworthy relationship with the public, creating spaces where the public can define and demand responsible knowledge practices and participate in the process of creating STS inspired forms of careful, collective, and public knowledge construction.

Impact of our Publications

Since the time of our last annual report in April 2019, over 35 news articles have described, commented on and publicized our reports. A full listing is available [here](#). Those articles were viewed by an estimated 4.9 million readers, and shared an estimated 439,000 times on social media.
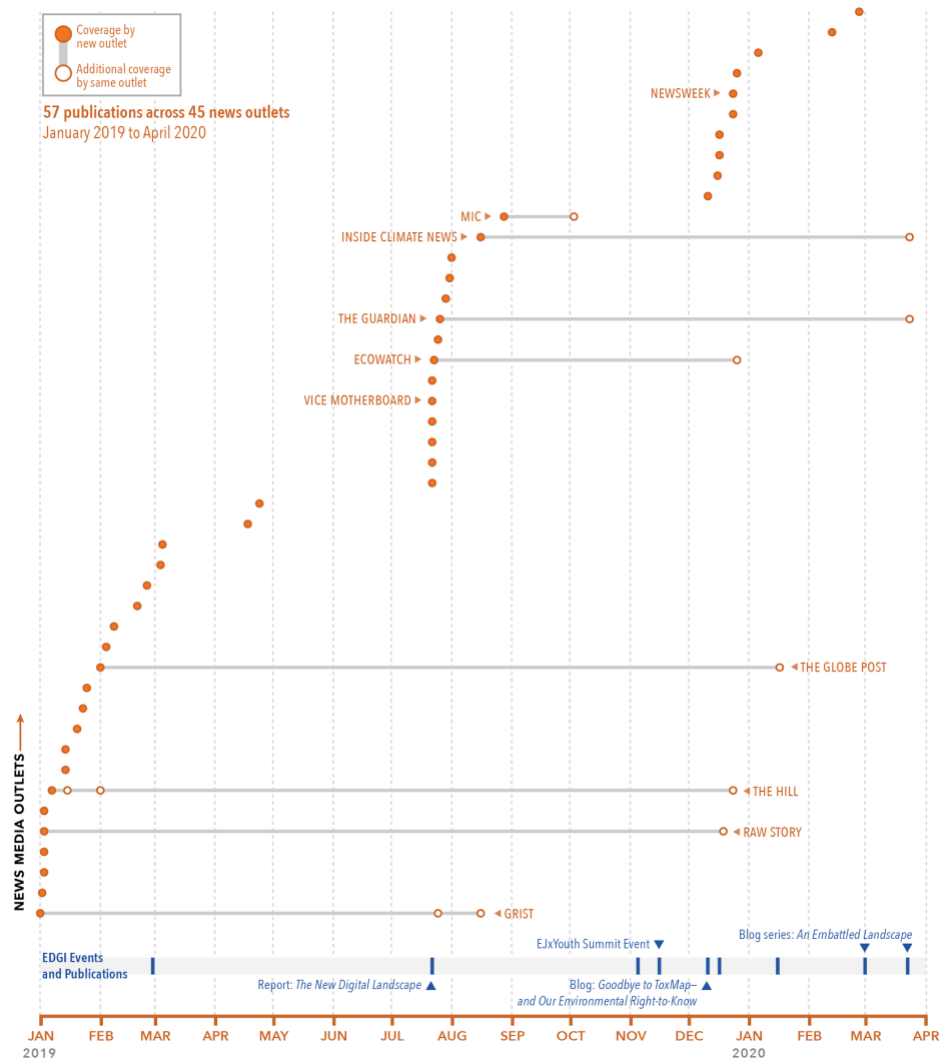
Figure 11: Data visualization of our press coverage from January 2019 to April 2020 by Steven Braun.

EDGI University Classes

As many in EDGI are academics who teach classes on topics pertaining to environmental data and governance, several of us have brought EDGI-related activities and work into our classrooms. Students gain a unique and often inspiring kind of experiential learning, while lending a hand with EDGI's projects. In the spring semester of 2020, EDGI-affiliated faculty in four different institutions coordinated classroom projects that fed into EDGI's ongoing projects on the ECHO database, environmental justice, and the enforcement of environmental laws. Three of these classes collaborated on a survey of ECHO's capabilities and ease of use: those taught by Sara Wylie at Northeastern University, Dietmar Offenhuber at Princeton, and Chris Sellers at Stony Brook University. We plan to

cull and summarize the results for EPA staff running ECHO, with whom we maintain a dialogue, and also to write an academic paper on our findings. Sara Lamdan's spring class at CUNY Law School also joined Chris Sellers' Stony Brook class in supporting EDGI investigations of environmental justice and state-level enforcement. Lamdan's students practiced FOIA-writing by sending inquiries about enforcement to nearly half of the state environmental agencies in the United States, and Sellers' did research into enforcement practices preceding recent episodes of pollution appearing in the news media. EDGI-faculty are thereby pioneering new ways of bringing what we ourselves have learned about the immense potential for citizen involvement in environmental data and governance into the classroom, to our own students.

FINANCIAL OVERVIEW

Over this past year we've continued work on our existing two-year grants from the David and Lucile Packard Foundation and the Doris Duke Charitable Foundation. We've been granted no-cost extensions for both of these grants which were set to end in March and May 2020, respectively, allowing us to continue to fund our existing contractors into the summer and to work on new projects, such as the cross-working group ECHO project.

We're excited to announce that we have just received a new grant from the Packard Foundation which will provide us with sustaining funding through September 2021 and will help support work such as conducting additional interviews with current and past EPA employees, preparing for a public release of transcripts from some of those interviews, a report on the future of the EPA, public databases of important website changes we've monitored as well as of FOIA'd documents received by major environmental groups starting with the Sierra Club and the Wilderness Society, and planning and facilitating in-person meetings for our distributed membership. We've also received a small grant from the NuLab at Northeastern University, which will help to fund our ECHO Environmental Enforcement Watch events this summer.

Donations to EDGI from members of the public are a much smaller percentage of our revenue than they were in our first year, but we are still incredibly grateful to those who donate. Donated funds allow us the flexibility to use them wherever they're most needed.

Many thanks to our donors, the David and Lucile Packard Foundation and the Doris Duke Charitable Foundation, Northeastern University, and our fiscal sponsor, The Public Laboratory for Open Technology and Science, for their support of all we do. It is people like you who help us keep our government accountable.

**Your support
makes this work possible**

DONATE NOW

WHERE WE'RE HEADED

This administration's efforts to curb the science, data, and regulatory capabilities of the federal environmental apparatus are likely to continue at least through 2020, though they have met with resistance from a Congress that has repeatedly refused its proposals for severe budget cuts, and pushed back as well through hearings as well as some recent legislation, such as the Science Integrity Act. Over the next year, while we will continue to monitor the impacts of the current administration and potentially its successor, we propose to orient EDGI's work to reconstructing environmental data and governance.

A new administration may well arrive at the beginning of 2021; even if it does not, Congress may be interested in new opportunities for oversight. We are developing recommendations to improve regulatory data collection methods, prioritize the needs of marginalized communities and vulnerable populations in environmental protection, and improve the quality of information provided to the public about regulations and the

scientific evidence informing them. While much has been made of the prospects for a Green New Deal, it is important to note that there is no mention of data, research, and public information in many suggested approaches to a Green New Deal. EDGI aims to illustrate and communicate the need to inform the public and connect environmental justice with data justice in order to build research and digital systems capable of addressing the profound public environmental health challenges posed by climate change and toxic chemicals.

Contribute to EDGI

Web Monitoring

EDGI welcomes volunteers to assist with our web monitoring work. Please email us to volunteer: enviroDGI@protonmail.com

EDGI Teaching

We would love to support development of further EDGI courses: Interested to host an EDGI web monitoring course? Please email us: enviroDGI@protonmail.com

EDGI Dev Team

EDGI also seeks interested coders and web developers to help with Scanner and other open source software projects. Please check out our GitHub: https://github.com/edgi-govdata-archiving and email us: enviroDGI@protonmail.com

**Your support
makes this work possible**

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