

Table 5.1. *Continued*

Company	EBH Client ^a	CMA ^b	Responsible Care ^c	BCSD ^d	NEDA ^e	GEMI ^f	Charter Signatory ^g
Shell International		X		X (1995)	X		X
Southern Power Co.	X					X	
Texaco Inc.	X		X	X (1995)	X		X
3M		X		X (1992)			X
Union Carbide Corp.	X	X	X		X	X	X
Weyerhaeuser Company	X			X (1995)	X	X	

^a Clients of E. Bruce Harrison, either direct clients or via a coalition managed by the E. Bruce Harrison Company public relations firm. For sources, see Appendix 2.

^b Member of Chemical Manufacturing Association (CMA), the largest American trade association for the industry. Sources: CMA Minutes of Meetings (a) Environmental Management Committee, 21 May 1986; 26 June 1986; 6 August 1986; (b) Federal Government Relations Committee, 20 October 1995; 16 November 1995; 1 December 1995. See Papers of the CMA, Chemical Industry Archives, University of California-San Francisco Library.

^c Responsible Care is the international chemical industry's voluntary environmental compliance program, developed by the CMA in 1988. Dates in brackets indicate the date the company became a member, if available.

^d The Business Council for Sustainable Development (BCSD) was formed in 1992 for the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro. In 1995, the BCSD merged with the World Industry Council on the Environment (WICE) and became the World Business Council for Sustainable Development (WBCSD). Source of company membership: Lloyd Timberlake, "Catalyzing Change: A Short History of the WBCSD," Geneva: WBCSD, 2006, 74–76; Stephan Schmidheiny, Rodney Chase and Livio DeSimone, "Signals of Change: Business Progress toward Sustainable Development," Geneva: WBCSD, 1997, 5.

^e The National Environmental Development Association (NEDA) is an umbrella coalition created and maintained by the E. Bruce Harrison Company public relations firm. See chapter 3.

^f The Global Environmental Management Initiative (GEMI) was developed and maintained by staff at the E. Bruce Harrison Company public relations firm. It was also housed within the PR firm (the GEMI street address was that of the Harrison firm). Source of company membership: Global Environmental Management Initiative (GEMI). *Total Quality Environmental Management: The Primer*. Washington, DC: GEMI, 1993; "Value to Business: Global Environmental Management Initiative," Washington, DC: GEMI, November 1998; and Susan Moore, "Environmental Improvement through Business Incentives," Report prepared by GEMI Incentives Task Force, Washington, DC: GEMI, 1999.

^g The Business Charter for Sustainable Development was crafted by the International Chamber of Commerce in 1991 ahead of the WICEM II meeting in Rotterdam. The charter, signed by nearly 200 companies, was then presented at UNCED as a sign of companies' voluntary commitments to environmental protections. Source for signatories to the Charter: International Chamber of Commerce, "The Business Charter for Sustainable Development: Supporting Companies and National Business Organizations: List as of 31 March 1991." Paris: International Chamber of Commerce.

the boats? How do you actually change the context in which those decisions are getting made rather than just the decisions themselves?

In principle, the cause transcends the will of individuals and the vagaries of public opinion. But in the details, climate advocates constructed publics as multiple and contingent, where influence was gained by appealing to self-interest and particularistic qualities. To the extent that moral obligations were offset by the realities of the deliberative systems in which legitimation takes place, public relations was the strategic tool by which climate advocates reached these various publics.³⁶

One respondent explained that the focus on situational publics was a structural effect. Given the capacities of digital media and political campaigns to fragment, monitor, and target publics along carefully defined data-rich lines, there was no real alternative for climate advocates but to adopt the same approach and decentralize their outreach. By targeting “the right people in a non-unified way,” the climate movement felt its efforts were gaining traction. The use of situational publics was also a result of the fragmentation of the climate movement itself. While fundamentally a science or environmental issue, climate change appears on the national political agenda within different frames: as a matter of human health, economic growth, security, or energy consumption, among others. As it moves through these frames, different publics are activated to respond.

Synthetic Narratives: Legitimacy by Proxy

To talk to their multiple publics, climate advocates use stories:

Lean toward stories because it's basically the way people process information. You want to get people's attention, you want to win their hearts, you want to win their minds, you want to sort of pull us all together and everything? We need to become better storytellers. There is no doubt in my mind at all that a big part of all these environmental problems is the failure of advocates to really communicate well. And we need to become better storytellers. (Lorne, co-founder of strategic research center on climate advocacy)

Climate advocates also use stories as vehicles for other stories:

So a fossil fuel divestment campaign becomes an entire way to talk about everything from financial risk of investing in fossil fuel companies to the moral argument of why you shouldn't do that anymore to talking about green investments and new opportunities. (Grant, strategic communications director)

But the most valuable stories for climate advocates are those that serve as scripts for action. These are what one interviewee called “synthetic” narratives: projections of *commitments* to climate-friendly behaviors, if not actual results, in order to provoke others into making similar commitments.

Synthetic narratives are informal corollaries to the formal rule-setting of transnational climate agreements. Just as climate agreements involve promises by stakeholders to act toward predetermined objectives, such as levels of carbon dioxide or sector adoption of renewal energy, synthetic narratives are the stories that convey the power of these commitments to a broader audience.

Climate agreements such as the Paris Accord are synthetic narratives in their own right. The Paris Accord, a global climate change agreement ratified by nearly 190 countries in 2016, asks each country to outline and communicate its projected climate actions, known as Nationally Determined Contributions (NDCs). One respondent referred to this as a “ratchet” system of evidence. As one country makes a commitment to improved climate behavior, the premise is that this will ratchet up the obligation for others.

Parth, the sustainability communications director, described an initiative called RE100, a partnership of business groups committed to using entirely renewable energy sources by a projected date of 2050, to explain how synthetic narratives act as a kind of ratchet for action:

We built a menu of initiatives that were already in existence, but we thought were the most credible initiatives companies could sign up to [in order] to really take action, and that were trackable. That was the key. [We] were tracking the progress on these initiatives. So RE100 was an initiative that we kind of created, actually, which was about companies committing to going 100 percent renewable for energy. . . . What that did is it changed the game, because we were able to then go to the negotiators and say these companies have skin in the game now; they are moving, and we are tracking them. And *they* want you to do this. And we came up with a menu of eight asks that we wanted out of Paris [the Paris Accord], that business

wanted out of Paris, 'cause it would be good for the planet and good for their bottom line. Because the old paradigm was, "You go first, business"; and then business was saying, "No, no, we need policy to tell us what to do." And it was this very comfortable stand-off. And what we did is we just broke that. . . . It was like, "We're already in. If you raise the level of ambition, we can raise it more." "If you raise it more, we'll raise it more." It became this very powerful dynamic. And we ended up getting all eight asks in the Paris negotiations.

Climate advocates' use of synthetic narratives is seen as especially important in the American context, where national-level political consensus on climate change is all but nonexistent. Synthetic narratives are a "bottom up" strategy that can compensate for US federal government inaction on climate policy, by incentivizing subnational stakeholders such as state-level actors or corporate CEOs to act—or promise to act—and to promote those possible actions to multiple audiences. Whether or not these promissory notes carry weight at the federal level, they form a powerful context for action in which participation is valorized. In this regard they are the ideal public relations strategic tool: they perform legitimacy for various audiences, constituting cultural evidence that is not beholden to scientific proof. Moreover, this strategy of publicity highlights the lack of participation by uncooperative actors, who can then be brought into the storyline as rogue antagonists or uncaring enemies.

Synthetic narratives can be many things; but certain manifestations of evidence are perceived as more impactful than others. Quantification of action is revered, combining the apparent objectivity of numbers and clear articulation of metrics with the superiority of a datafied template. Mario, the associate at the international strategic communication organization, explains:

Let's say if you got a million people to say, "I will not eat meat on Mondays." You could quantify what that carbon impact would be. And then, so if you could say, "All right, we've got a million people—Americans—to, you know, essentially reduce their meat consumption by 20 percent, and we have 50 states."

This kind of knowledge was seen as powerful evidence not only for policymakers but also for ordinary citizens who may be more moved by rational (numerical) arguments than by the emotional tenor of stories.

As critics have deftly noted, corporate actors make extensive use of synthetic narratives, especially their quantitative features, as part of their social responsibility initiatives.³⁷ Schemes of carbon accounting, environmental profit and loss statements, and less-frequent company financial reports are initiatives that are meant to demonstrate long-term commitments to structural change.

But they also demonstrate the propensity of these promises to become promotional in and of themselves. Like climate polls or carbon offsets, climate narratives promote a future in which we eventually exit our situational public mode and enter into the Great Community that John Dewey envisioned. In the present, however, they are more effective as PR for the organizations themselves.

One conclusion we can draw in this chapter is that turning the climate into a “client,” no matter how pure the intentions or how morally right the motives, removes it from its physical basis, its co-location in the atmosphere, the biosphere, and the other related systems of land, oceans, and air. More consequential still, it elides the profoundly human nature of the problem of climate change. PR for the planet is a culturalist phenomenon. It considers humans as cultural creatures, whose attitudes and behaviors can be forged by frames and messages or stories that appeal to us as individuals on the basis of our self-interest. It returns us, as William Cronon put it, to “the wrong nature,” one in which “too many corners of the earth become less than natural and too many other people become less than human.”³⁸

But this is an unfair assessment if we consider the structural limitations in which climate advocates find themselves. When PR professionals take on the climate as their “client,” embracing the issue for its own sake, we might expect that it will make discourse about climate change more disciplined, more strategic, and more politically performative, and indeed this is the case. PR changes what counts as publicity. Anchored in the relative propositions of legitimacy, PR is bound by its focus on present situations and influential targets. In its bid to render climate change more visible and meaningful for media, politics and business, climate PR ignores, excludes, and silences those paradigms, plights, and constituents whose concerns are less palatable and especially less amenable to information-based resolution.

In chapter 7, we shall discover how public relations is moving further in this direction, not away from it. In the new nexus of information, environment, and publics heralded by the data economy, established systems of knowledge are subject to tournaments of value, where the prize is awarded to the information that best serves those who can harvest it, attempting to make publics even more amenable to their cause.

“Shared Value”

Promoting Climate Change for Data Worlds

In 2014, United Nations Global Pulse, a “data innovation hub and knowledge center” promoting public-private partnerships for development projects, launched a Data for Climate Action (D4CA) “challenge.” Companies from the technology, retail, finance, and telecommunications sectors provided anonymized, aggregated datasets to teams of data scientists and researchers who used this to devise pragmatic solutions to address climate change. Inspired by France Telecom Orange’s 2012 Data for Development challenge, the ostensible objective of the D4CA campaign was twofold: first, to show the public sector and the research community how private sector data can be used to achieve Sustainable Development Goals (SDGs); second, to establish a model of secure data provision to encourage multiple companies to participate with minimal risk to their proprietary data elements.

D4CA challenges (a second one was held in 2017) advance what UN Global Pulse calls “data philanthropy”—a data sharing practice by which businesses “donate” their data to serve the public good. Also called “data for good” or “data for development,” the practice has gained adherents in both the private and public sectors since the concept was introduced at the World Economic Forum in Davos, Switzerland, in 2011. Data challenges such as the D4CA campaigns have captured the imagination of the private sector and the general public, singing a new song with harmonies of global participation to drown out the growing public chorus about the harms of consumer data collection in terms of privacy and security, transparency and legality, and rights and equity. Adherents point to the immense potential of big data as an information resource to help personnel and citizens respond more quickly and efficiently to urgent social problems such as humanitarian aid distribution or epidemic control, aiming to elevate the promise over the perils of personal data collection. D4CA is now considered a key area of intervention for the broader data philanthropy movement; and conversations around D4CA are taking shape in a number of contexts, from UN climate

summits to urban and regional planning events, and from business conferences and hackathons (e.g., Bloomberg’s annual Data for Good Exchange) to corporate social responsibility programs (e.g., MasterCard’s Center for Inclusive Growth).

The data for good formulation can be seen as a response, or counteroffensive, to the emergent regulatory oversight of national governments and international organizations over the misuse of personal data (“digital data created by and about people”) and the overreach by technology companies. This regulatory impetus reached its apex with the passage in 2018 of the General Data Protection Regulation (GDPR), a law passed by the European Union to maintain the privacy and security of individuals’ personal data, with sweeping impacts on organizations worldwide. Data for good adherents attempt to offset the image of unethical or uncaring data-collecting organizations perpetuated by regulatory regimes such as the GDPR, generating arguments for multiple audiences that present data expropriation and reappropriation as not only safe and just but also essential for knowledge and action around global public problems.

When engaging with private stakeholders, data philanthropy advocates present the practice as a business opportunity, generating what Michael Porter of the Harvard Business School calls “shared value,” whereby social problems are made into “productivity drivers” for firms. In this framework, becoming a “data donor” is a means to maintain supplies and profits, reach new markets, and expand technical infrastructures.¹

When oriented toward a public audience, data philanthropy frames social problems as “lack of information” problems, where big data can fill crucial gaps in knowledge, whether spatial, temporal, or demographic, and provoke more robust responses in terms of accuracy, timeliness, or adequate resources.² In this frame, the private sector is positioned as a critically important social actor in resolving development problems by sharing valuable data with national statistics offices, development agencies, and research centers. Even more consequential, data philanthropy is heralded as a first step toward the creation of a “data commons,” a public space to house valuable social data that can be accessed by multiple actors for the good of all. Sister initiatives to D4CA, such as AI4SDG (Artificial Intelligence for Sustainable Development Goals), embrace data philanthropy as a move toward a voluntary regime of environmental governance and accountability that can engender global health, equality, and well-being outside formal regulatory structures.³

This logic is made palatable to end users (i.e., the individuals whose behavioral, locational, or other data have been collected into a privately owned dataset, with or without their knowledge) by appealing to the notion of mutual obligation. Individuals who opt out of a data commons are said to create both a “free rider problem” (e.g., benefiting from data-mined policy research without having to contribute their own data) and a “tragedy of the commons” since “the collective benefits derived from the data commons will rapidly degenerate if data subjects opt out to protect themselves.”⁴ By participating in D4CA and related challenges or initiatives, end users can work collaboratively with private companies and other “stakeholders” to promote the use of data for good.

This chapter subjects these various premises to critique through a detailed examination of the activities of UN Global Pulse and its various collaborators and advocates in the promotion of Data for Climate Action initiatives. In promoting corporate-owned big data as a solution for problems of environmental and climate destruction, UN Global Pulse and its collaborating organizations perpetuate the spirit and practice of publicity we have been examining in these pages. First, D4CA reveals the ongoing preoccupation by the private sector to maintain a positive image among its various audiences; and this preoccupation drives the development of information strategies—and the reliance on information brokers—that perpetuate problematic understandings of what it means to act together as a public. Building the D4CA campaign around shared risks and self-interested rewards, UN Global Pulse and its partner organizations imagined data as a common currency that could be transacted to create value for its participants—who were themselves imagined as “stakeholders” with much to gain or lose by their investment in the problem of climate change.

Second, D4CA is centrally about promoting the expertise of the private sector as a specialized and necessary complement to scientific findings by climate researchers. In this sense, D4CA rehearses the performative dimensions of corporate activities, whereby companies engage in “creating numbers” such as carbon markets to measure the sustainability efforts of the firm or promote environmental information systems that rely on private-sector data and infrastructure for decision-making around environmental issues.⁵ In the process, these performative techniques change what counts as an environmental problem and which actors are best equipped to solve it.⁶ As we saw in earlier chapters, since the 1980s, the “greening” of corporations by means of their adoption of voluntary (i.e., independently developed,

self-imposed, and non-binding) practices of environmental sustainability have not only involved new accounting, information, and audit regimes but have also given rise to new forms of authority that decenter government and other public sector information and experience in favor of business expertise.⁷ These forms of environmental management are typically more about the political sustainability of corporations than about their contributions to environmental sustainability; D4CA is no exception.⁸

A third feature of the D4CA campaign is more subtle but perhaps most revealing for comprehending the system of public relations in the contemporary context. In their drive to create situational publics around social problems, to broker relationships among parties that can operate in their favor, and to decenter their role as value-laden protagonists and operate instead from the sidelines as “value-neutral” intermediaries, the UN Global Pulse and its collaborators and adherents have effectively become public relations agents.⁹ D4CA reinforces the notion that the system of PR and its role in managing and disciplining public information and communication remains instrumental to the organization of modern social and political life even in digital, self-mediated, and globally accessible information worlds. UN Global Pulse staff don’t think of themselves as PR agents, which suggests that the PR function has in the current era been distributed or diffused into professional identity and practice more generally. This makes sense given the affordances and requirements of contemporary media, where image management has become paramount to personal and professional lives.

It also speaks to the ongoing nexus of information, environment, and publicity in the making of an American environmental consciousness. Making the environment—or here, climate change—into an information problem transforms how it is constituted as a problem. Writing about the proliferation of environmental information systems such as computer modeling and simulation to monitor climate change, Kim Fortun argues that such systems “structure what people see in the environment, and how they collaborate to deal with environmental problems. . . . [T]hey are technologies designed to produce new truths, new social relationships, new forms of political decision-making, and ultimately, a renewed environment.”¹⁰

As a technology of legitimacy, the information system of PR has since the early twentieth century worked toward producing this renewed environment. Its legacy is apparent in the D4CA campaign, where it operates as a system of power, providing access to some knowledge at the cost of other forms of knowing, and managing risks for stakeholders while diminishing

attention to the risks to global health and well-being posed by the crisis of climate change.¹¹

This chapter examines the logics by which Data for Climate Action is presented to private and public sector actors as a secure, trustworthy, and legitimate means of data collection and an opportunity to participate in responding to the climate crisis. We argue that while this campaign seeks to uphold the social value of big data by presenting it as a source of necessary knowledge to solve global public problems like climate change, its ultimate goal is to preserve the practice of corporate collection and targeting of user data and to maintain the value of these data as a private asset. As such, rather than legitimating the use of big data for climate change, we show that climate change is used to maintain the legitimacy of big data.

The chapter is organized as follows. First, we examine perspectives on the uses of data by private sector actors for environmental and climate-related response, considering how claims to use private data for public good are frequently offset by their practical limitations. We then outline our research method and data collection process; we review the conceptual origins of “data for good” and the principles by which it has been made meaningful in policy contexts. We next show how the Data for Climate Action campaign and the major players involved promoted D4CA as a safe and secure way to generate value for all participants, demonstrating the relevance of this campaign for thinking more broadly about the problems posed by “data for good” paradigms in the realm of global governance. We conclude with a discussion of the impact of D4CA and related initiatives and the implications these present for responding adequately to the enormous challenges of global climate change.

Civilizing Data: Big Data and Global Development

On 31 March 2009, amid mounting concerns in Europe about the rapid proliferation of techniques by commercial organizations to collect vast amounts of digital data about individual consumers and their online behaviors, a meeting was held in Brussels to discuss potential responses. In her keynote at the event, European Consumer Commissioner Meglena Kuneva attempted to balance consumer and regulator concerns with an acknowledgment of the economic opportunities presented by information and communication technologies:

It is precisely because we want these new opportunities to grow and evolve, that we need to promote the trust and confidence that will encourage people to participate. Internet is an advertisement supported service and the development of marketing based on profiling and personal data is what makes it go round. *Personal data is the new oil of the internet and the new currency of the digital world.*¹²

The power of this metaphor—data as oil—and its implications for big data’s role in addressing global social problems have formed the basis of arguments both for and against the “data for good” paradigm.

For proponents, data are indeed the gushing resource of the digital economy, with enormous value to be derived from extraction and refinement. A primary argument along these lines comes from economic organizations such as the World Economic Forum, which argues that personal data “will emerge as a new asset class touching all aspects of society.”¹³ At the core of this view is the strongly held perspective that a so-called multi-stakeholder approach, by which private companies participate in the problem-solving, is essential to develop innovative responses to ongoing social problems.¹⁴

For critics, “data is the new oil” has a rather different meaning: the activities of corporate owners to capture and derive value from personal data is nothing less than a new phase of colonialism. Social theorists Nick Couldry and Ulises Mejias argue that data companies redefine social relations to normalize the act of digital dispossession, echoing historical appropriations of resources, territory, and personhood. They identify four discursive logics by which companies obscure their practices of personal data extraction and control. First, personal data are promoted as a vast and largely untapped natural resource whose value lies exclusively in their extraction and refinement. As such, data “are ‘merely’ the ‘exhaust’ exuded by people’s lives, and so not capable of being owned by anyone.”¹⁵ Second, companies’ use of consumer data is not about deprivation of ownership but “just sharing,” and such a benign form of reciprocity conduces to the benefit of all.¹⁶ Third, corporations are uniquely positioned to wield the skills and knowledge required to collect, process, and analyze such vast and complex quantities of digital data. Finally, companies espouse a rationality that “operates to position society as the natural beneficiary of corporations’ extractive efforts, just as humanity was supposed to benefit from historical colonialism as a ‘civilizational’ project.”¹⁷

Engin Isin and Evelyn Ruppert offer a portrait of data colonialism by attending to the complex issues arising from digital development, or

ICT4D (information and communication technologies for development).¹⁸ Though arguments in favor of ICT4D present data extraction as a necessary complement to existing data sources such as national statistics and demographics, ICT4D often reinforces hierarchical perceptions of global regions, portraying countries that are “information poor” as beneficiaries of knowledge and insights from “information rich” sites. Moreover, though long-standing manifestations of imperial data politics such as the census or the metric system produced power arrangements between colonizers and colonized, contemporary ICT4D produce data that not only identify attributes of a population but subject them to monitoring over time and on a constant basis. This emergent “data empire” allows the Global North to set the terms of data collection and interpretation in the Global South, with dramatic implications for decision-making around development issues.¹⁹

Nevertheless, big data enthusiasts persist in seeing datasets as a diverse, integrated and timely source of information, one that could fill considerable gaps in global knowledge and action. In chapter 5, we discovered how public relations consultants helped to promote uses of corporate data for environmental or climate action in the late 1980s and early 1990s by introducing and circulating new standards, norms, and infrastructures of environmental responsibility. These norms were enforced via PR and business networks (such as EnviroComm or the WBCSD), auditing and certification schemes (such as Responsible Care), and managerial initiatives (such as GEMI). They served primarily to circulate the idea that the private sector harbored specialized expertise to meet global objectives of environmental sustainability and protection.²⁰ In the contemporary context, similar patterns emerge around the promotion of carbon markets and other business-friendly climate action initiatives. Carbon markets and related forms of climate accounting are co-constituted as authoritative by a range of like-minded actors, from global governance institutions to transnational and nongovernmental organizations.²¹ These efforts require considerable promotion to maintain their legitimacy. Promotional managers are especially adept at blurring boundaries between climate knowledge and business knowledge, invoking concepts like “sustainability,” “climate,” and “public good” to justify business activities. We should be sensitive to ongoing efforts by promotional actors to dedifferentiate the concepts of environment and data—such as using the metaphor of the “cloud” in computing services—to elevate the symbolic implications of the management strategies themselves.²² Taken as a whole, these initiatives can

be seen as attempts to shift the needle, *not* on actual environmental problems at hand, but on the way problems are defined, managed, and evaluated.

This problematic—redefining the problem instead of making inroads to solve it—is especially complex in the realm of climate change. Climate change has been defined as a “super-wicked” problem for its unprecedented spatial and temporal challenges, its obstacles to cognitive and social judgments, and its low incentive structure for those paradoxically best placed to address it in policy settings.²³ It is partly for this reason that private-sector data processing has gained a foothold as a potential contributor to climate problems: as a new kind of environmental information system that can fill gaps in global climate data sources by providing more diverse, integrated, and timely datasets. As data researchers James Faghmous and Vipin Kumar note, current climate data sources present significant challenges for researchers. The lack of long-term data; problems of heterogeneity (i.e., having to deal with a wide array of data sources that are complementary but also possibly redundant); constantly changing observation systems; limited understandings of how data were collected and with what purpose; and limited data representation models that acknowledge the climate system as a multivariate and ever-evolving spatio-temporal network; these are some of the challenges. While big data analytics could help complement current observational, remotely sensed, and model output sources of climate data, just as with any data-driven exploration, it raises questions over sampling bias, autocorrelation, and causal inferences in predictive models. The greater risk with big data analytics is to present it as the “silver bullet” of modern research, where findings can be interpreted using a “theory-free” mindset.²⁴ While these methods will produce results, they will yield few insights without theory.

Promoting private sector data and its analytics as essential information resources for climate concerns is rooted in the promise of these data to both define and govern environmental problems as well as to support evidence-based decision-making. Based on the principle that all citizens, corporations, and state agents require equal access to information to judge environmental problems, the notion of environmental information systems (EIS) as sources of decision-making has become engrained among environmental justice activists, government agencies, nonprofits, and corporations.²⁵ The category of EIS is broad, encompassing such diverse systems as remote sensors, geographic information system mapping, and visualization; computer simulators, inventories, and databases; and environmental accounting and reporting modules. EIS have been adopted to address water quality, pollution,

deforestation, environmental justice, and climate change. Scholars such as Kim Fortun have referred to the proliferation of EIS to support evidence-based environmental governance as the “informating” of environmentalism. Through various means, and in varying formats, EIS help to control what a system of environmental topics, data, and expertise consists of; and how this information is communicated to different audiences.

Recent studies on the cross-pollination of big data and environmental governance have shown how environmental activists are increasingly adopting EIS that rely on big data. Environmental activists have primarily engaged with EIS that depend on voluntary data collected through participatory citizen sensing or crowdsourcing and secondarily with data-mining projects that collect social media posts about pollution and health.²⁶ Initiatives like these contribute to the idea that EIS produce data that are equitable, reliable, and accurate.²⁷ They lend credence to the notion of partnerships between the public and the private sector to secure access to big datasets that would otherwise only be used for profit (or remain unattended). These ideas have thus taken center stage in the conversation about how to harness the “data revolution” to advance the agenda of the 2030 Sustainable Development Goals.

Research Process and Data Collection

In order to assess the relevance of UN Global Pulse and the D4CA challenges in popularizing the concepts of “data for good,” “data philanthropy,” and “data for climate action,” we first conducted a thorough review of public documentation pertaining specifically to those terms, including news articles, technology magazines, and documents published by intergovernmental and international organizations like the United Nations and World Economic Forum (WEF). We also reviewed reports and white papers authored by collaborators of the UN Global Pulse innovation lab, such as participants in the UN World Data Forum and members of the UN Secretary-General’s Data Revolution Group.

After this initial stage, we contacted a list of actors who appeared prominently in the documentation. We prepared a semi-structured interview guide designed to elicit perspectives on the emergence and development of the aforementioned concepts, especially on the “data for climate action” approach. Questions covered individual professional trajectories and

engagements with the field of data for good before and after participating in the D4CA challenges and other data-for-good events as advisors, evaluators, or organizers. Interviewees were also asked to reflect on what constitutes the emerging field of data for good, the practice of data philanthropy, and initiatives like D4CA; and their perceived implications for data sharing, corporate culture, and climate governance.

After an initial round of interviews with a small pool, we adhered to a limited snowball sampling method in which interviewees were asked to recommend other data-for-good experts. We repeated our method of research, approach and interview with this secondary pool. Thirty-eight experts were contacted; nineteen were interviewed. Given the high profile of the interviewees (e.g., senior executives, founders, and CEOs of tech companies), we consider the total interview sample to be significant.

All interviewees work (or have worked) in data companies, think tanks, foundations, intergovernmental organizations, and international organizations, where they occupy roles promoting private-public cooperation to advance the achievement of the SDGs or other climate change mitigation through big data. Some were data scientists, app developers, and public relations consultants; others had a background in development, climate science, or policymaking. Interviewees landed in the field of data philanthropy from a number of paths. Some had worked or served as an advisor for the UN Secretary-General’s Expert Advisory Group on the Data Revolution. A number had careers in development and climate science and had worked in different UN agencies using big data to address risk reduction, disaster management, and humanitarian response. Some had backgrounds in tech companies working as developers or communications managers. At the time we conducted the interviews, a year after the second D4CA challenge, most of the respondents occupied senior-level positions in their organizations. Their ages ranged from thirty to fifty years old.

We also participated in three data-for-good events: Bloomberg’s 2017 Data for Good Exchange (#D4GX); WEF’s teleconference on big data for health, “Epidemic Readiness and Trustworthy Data”; and the 2019 CIBC Analytics Day, an event by the Canadian Imperial Bank of Commerce focused on the theme of Data for Good. These participant-observation activities helped us supplement the interview data with *in situ* considerations of the organizational discourses, practices, and tensions among Data for Climate Action advocates.

Table 7.1. Data for Climate Action Interview Respondents

Interviewee	Date	Professional Affiliation	Professional Title	Relation to the data for good movement
Respondent 1	4/30/18	Center for International Earth Science Information Network (CIESIN)	Director of Customer Success & Advocacy	D4CA Strategic Advisor (2017), UN Secretary-General Expert Advisory Group on the Data Revolution (2014)
Respondent 2	5/6/18	World Economic Forum (WEF)	Data Driver Development	D4CA Evaluation Committee (2017)
Respondent 3	5/10/18	Former UN and Skoll Global Threats Fund	Program Officer	D4CA Evaluation Committee (2017)
Respondent 4	6/6/18	Former UN Global Pulse	Data Innovation Specialist	Big data and Sustainable Development Goals (SDGs)
Respondent 5	6/8/18	Big Data Research, LIRNEasia	Team Leader	D4CA Evaluation Committee (2017)
Respondent 6	6/12/18	Former UN Secretary General's Climate Change Support Team	Climate Policy Advisor	D4CA Technical Committee (2014)
Respondent 7	6/19/18	UN Global Pulse	Director	D4CA Strategic Advisor (2014 & 2017), UN Secretary-General Expert Advisory Group on the Data Revolution (2014)
Respondent 8	6/19/18	UN Global Pulse	Research Consultant	D4CA Organizer (2017)
Respondent 9	6/26/18	Pulse Lab Jakarta	Chief Technical Advisor	Big data and SDGs
Respondent 10	6/29/18	CEPEI Colombia	Data Coordinator	Big data and SDGs
Respondent 11	7/3/18	The Centre for Internet and Society (CIS)	Research Director	Big data and SDGs
Respondent 12	7/16/18	UN Population Fund (UNFPA)	Humanitarian Data and Resilience	D4CA Technical Committee (2014)
Respondent 13	7/19/18	Dalberg Data Insights	Project Manager	Big data and SDGs
Respondent 14	7/31/18	Dalberg Data Insights	Data Scientist	Big data and SDGs
Respondent 15	8/17/18	Humanitarian OpenStreetMap (HOT)	Director of Community and Partnerships	Big data and SDGs
Respondent 16	9/24/18	Crimson Hexagon	Director of Customer Success & Advocacy	D4CA Data Donor (2017)
Respondent 17	9/27/18	FSG	Co-Founder and Managing Director	Shared-value expert
Respondent 18	10/15/18	DTN	Chief Meteorological Officer	D4CA Data Donor (2017)
Respondent 19	10/17/18	Earth Networks	Chief Marketing Officer	D4CA Data Donor (2017)

“A World That Counts”: Promoting Data as a Global Good

“If you can’t measure it, you can’t manage it.” This is how Michael Bloomberg announced, via Twitter, the fifth Bloomberg Data for Good Exchange (#D4GX)—an annual event that brings together corporations, policymakers, nonprofits, charitable foundations, and researchers to explore how big data can solve the most pressing social problems of our time. The 2018 conference theme was, “*Our Data for Good?*”—reflecting on ways the private sector could deploy its data assets to develop data science projects that focus “on everyone having a stake, making it solid, fair, and equitable.”²⁸

Conference presenters spoke of the power of big data to tackle an array of social issues, from gender equity to climate resilience. Disaster recovery specialists explained how mobile finance and credit-card transaction data can help city leaders prevent price gouging after hurricanes and other extreme weather events, suggesting that mobile data could allow hurricane victims to find gas and groceries or assess who is creditworthy in a post-disaster setting. Catchphrases such as “When you have data that informs, you have data that transforms” or “The power of data is to drive good decisions based on fact and not politics” were frequently invoked to emphasize how private big data can catalyze social change.

Many of the #D4GX presentations described their initiatives in terms of “data philanthropy,” an emerging practice whereby corporations donate data or insights generated from their data to the public (or a public-serving analyst such as a nonprofit institution) to yield new insights that could improve public policies or social programs and services. In addition to providing “evidence-based, data-driven” insights, data philanthropy intends to align business and philanthropic activities in a “shared value” strategy whereby companies link corporate social responsibility with competitive advantage to create social and economic value.²⁹

The origins of data philanthropy can be traced to the 2009 World Economic Forum annual meeting in Davos where, in the aftermath of the global financial crisis, executives, government officials, and development experts introduced the idea of big data as an untapped resource for human well-being. In a series of reports following the Davos meeting, the WEF and UN Global Pulse introduced the principles of its project to build a new “ecosystem” of personal data management.³⁰ The new ecosystem was designed to respond to three main concerns: (a) creating value, (b) managing risk, and (c) strengthening trust. We describe below how these concerns were expressed.

Table 7.2. Data for Climate Action Documentation

Author	Year	Document Name	Document Type	Source
BBVA	2017	Data and Cybersecurity, Keys to Generate Confidence in a Digital Bank	Blog/News	https://www.bbva.com/en/data-cybersecurity-keys-generate-confidence-digital-bank/
BBVA	2017	BBVA to Join UN Global Pulse in “Data for Climate Action” Challenge	Blog/News	https://www.bbva.com/en/bbva-join-un-global-pulse-data-climate-action-challenge/
BBVA	2019	Big Data Contributes to the Sustainable Development Goals	Blog/News	https://www.bbva.com/en/big-data-contributes-to-the-sustainable-development-goals/
Bloomberg	2019	Data for Good Exchange 2019 Preview: Planet Track	Blog/News	https://www.techatbloomberg.com/blog/data-for-good-exchange-2019-preview-planet-track/
Business Wire	2013	Crimson Hexagon Partners with Public Sector Organizations through Social Research Grant Program	Blog/News	https://www.businesswire.com/news/home/20131025005507/en/Crimson-Hexagon-Partners-Public-Sector-Organizations-Social
Business Wire	2017	UN Global Pulse and Western Digital Host Data for Climate Event at 8th Sustainable Innovation Forum During COP23	Blog/News	https://www.businesswire.com/news/home/20171108005602/en/
Center for Strategic & International Studies	2017	Harnessing the Data Revolution to Achieve the Sustainable Development Goals	Report	https://www.csis.org/analysis/harnessing-data-revolution-achieve-sustainable-development-goals
CNN	2011	Crunching Digital Data Can Help the World	Opinion	http://edition.cnn.com/2011/OPINION/02/02/wolfe.gunasekara.bogue.data/index.html?section=cnn_latest
Data-Pop Alliance	2015	Big Data for Climate Change and Disaster Resilience: Realising the Benefits for Developing Countries	White Paper	https://datapopalliance.org/item/dfd-id-big-data-for-resilience-synthesis-report/

Data-Pop Alliance	2016	Using Big Data to Detect and Predict Natural Hazards Better and Faster	Blog/News	https://datapopalliance.org/using-big-data-to-detect-and-predict-natural-hazards-better-and-faster-lessons-learned-with-hurricanes-earthquakes-floods/
Earth Imagining Journal	2015	Planet Labs Commits \$60 Million in Geospatial Imagery to Global Community	News	https://ejournal.com/news/business-2/planet-labs-commits-60-million-in-geospatial-imagery-to-global-community
Fast Company	2011	Data Philanthropy: Open Data for World-Changing Solutions	Blog/News	https://www.fastcompany.com/1678963/data-philanthropy-open-data-for-world-changing-solutions
Fast Company	2017	How Mastercard's "Data Philanthropy" Program Is Tackling the Global Financial Information Gap	Blog/News	https://www.fastcompany.com/40457902/how-mastercards-data-philanthropy-program-is-tackling-the-global-financial-information-gap
Forbes	2011	Data Philanthropy Is Good for Business	Blog/News	https://www.forbes.com/sites/oreillymedia/2011/09/20/data-philanthropy-is-good-for-business/#32da89465f70
Forbes	2015	Data Collaboratives: Sharing Public Data in Private Hands for Social Good	News	https://www.forbes.com/sites/bethsimonenoveck/2015/09/24/private-data-sharing-for-public-good/#1bd1afe51cd
Forbes	2017	Mastercard's Big Data for Good Initiative: Data Philanthropy on the Front Lines	Blog/News	https://www.forbes.com/sites/ciocentral/2017/08/07/mastercards-big-data-for-good-initiative-data-philanthropy-on-the-front-lines/#3310288b20dc
Forbes	2019	Bloomberg's Data Initiatives: Big Data for Social Good in 2018	Blog/News	https://www.forbes.com/sites/ciocentral/2018/01/02/bloombergs-data-initiative-big-data-for-social-good-in-2018/#17bd48423a44

(continued)

Table 7.2. *Continued*

Author	Year	Document Name	Document Type	Source
GIZ	2017	Data for Development: What's Next? Concepts, Trends and Recommendations for German Development Cooperation	Report	http://webfoundation.org/docs/2018/01/Final_Data-for-development_Whats-next_Studie_EN.pdf
Global Partnership for Sustainable Development Data	2017	A World-Changing Combination: Dr. Claire Melamed on Big Data, Collaboration and the SDGs	Interview	http://www.data4sdgs.org/news/world-changing-combination-dr-claire-melamed-big-data-collaboration-and-sdgs
Global Partnership for Sustainable Development Data	2018	Climate Change Open Data for Sustainable Development: Case Studies from Tanzania and Sierra Leone	Report	http://www.data4sdgs.org/sites/default/files/services_files/WRI%20Climate%20Data_FINAL2_optimized.pdf
Global Partnership for Sustainable Development Data	2019	Partners Survey Results	Report	http://www.data4sdgs.org/sites/default/files/services_files/Partners%20Survey%20Report%202019.pdf
Global Partnership for Sustainable Development Data	2019	Could a Digital Ecosystem for the Environment Have the Potential to Save the Planet?	Blog/News	http://www.data4sdgs.org/news/could-digital-ecosystem-environment-have-potential-save-planet
GlobeNewswire	2014	UN Global Pulse & DataSift Announce Global Partnership	Blog/News	https://www.globenewswire.com/news-release/2014/07/02/1219319/0/en/UN-Global-Pulse-DataSift-Announce-Data-Philanthropy-Partnership.html

Harvard Business Review	2013	A New Type of Philanthropy: Donating Data	Blog/News	https://hbr.org/2013/03/a-new-type-of-philanthropy-donating-data
Harvard Business Review	2014	Sharing Data Is a Form of Corporate Philanthropy	Blog/News	https://hbr.org/2014/07/sharing-data-is-a-form-of-corporate-philanthropy
International Institute for Sustainable Development	2018	Big Data for Resilience	Report	https://www.iisd.org/publications/big-data-resilience-storybook
IT for Change	2019	Platform Planet: Development in the Intelligence Economy	Report	https://itforchange.net/report-platform-planet-development-intelligence-economy
Kindornay, S., Bhattacharya, D., and Higgins, K.	2016	Implementing Agenda 2030: Unpacking the Data Revolution at Country Level	Report	http://www.data4sdgs.org/sites/default/files/2017-09/Implementing%20Agenda%202030%20-%20Unpacking%20the%20Data%20Revolution%20at%20Country%20Level.pdf
Mastercard	2016	Donation Insights Helps Address the Information Gap Facing Charitable Organizations	Press Release	https://newsroom.mastercard.com/press-releases/donation-insights-helps-address-the-information-gap-facing-charitable-organizations/
Mastercard Center for Inclusive Growth	2016	A Call to Action on Data Philanthropy	Blog/News	https://www.linkedin.com/pulse/call-action-data-philanthropy-shamina-singh
Mastercard Center for Inclusive Growth	2018	Data for Good: Bringing Retail to Chicago's South Side	Blog/News	https://www.mastercardcenter.org/insights/data-snapshot-bringing-retail-chicago-south-side

(continued)

Table 7.2. Continued

Author	Year	Document Name	Document Type	Source
Mastercard Center for Inclusive Growth	2018	Data Philanthropy Offers New Avenues for Solving Old Problems	Blog/News	https://www.mastercardcenter.org/insights/data-philanthropy-offers-new-avenues-solving-old-problems-report-finds
Medium	2017	John Snow Labs Expands Data Philanthropy Program and Joins the 1% Pledge Corporate Philanthropy Movement	Blog/News	https://medium.com/@JohnSnowLabs/john-snow-labs-expands-data-philanthropy-program-and-joins-the-1-pledge-corporate-philanthropy-235ec5ac9429
Open Data Watch	2018	Understanding the Impact and Value of Data	Blog/News	https://opendatawatch.com/blog/understanding-the-value-impact-of-data/
Orange	2018	Data Sharing, an Environmental Issue	Interview	https://www.orange.com/en/newsroom/news/2020/data-sharing-environmental-issue
Philanthropy Daily	2014	The Latest Call for Data Philanthropy	Opinion	https://www.philanthropydaily.com/the-latest-call-for-data-philanthropy/
PR Newswire	2013	Teradata Announces New Focus on Data Philanthropy	Blog/News	https://www.prnewswire.com/news-releases/teradata-announces-new-focus-on-data-philanthropy-223903271.html
PR Newswire	2013	Teradata Honored by the White House for Leadership	Blog/News	https://www.prnewswire.com/news-releases/teradata-honored-by-the-white-house-for-leadership-in-bringing-big-data-analytics-to-governments-and-non-profits-231587871.html
PR Newswire	2017	Mastercard Receives 2017 Global Shared Value Award	News	https://www.prnewswire.com/news-releases/mastercard-receives-2017-global-shared-value-award-300551061.html
PSFK	2012	Future of Real-Time Information	Report	https://www.slideshare.net/PSFK/psfk-presents-future-of-realtime

Pulse Lab Jakarta	2014	International Conference. Data Innovation for Policy Makers	Conference Proceedings	http://unglobalpulse.org/sites/default/files/Proceedings%20Data%20Innovation%20Conference.pdf
Pulse Lab Jakarta	2017	Data Revolution for Policy Makers. International Conference	Report	https://issuu.com/pulselabjakarta/docs/drfp_2017_proceeding
Pulse Lab Kampala	2016	Catalyzing a Responsible “Big Data for Development Ecosystem”	Report	https://www.unglobalpulse.org/wp-content/uploads/2016/05/PLK-Track-2-progress-report-2015-2016.pdf
Pulse Lab Kampala	2017	Pulse Lab Kampala Progress Report 2016–17	Report	https://www.unglobalpulse.org/sites/default/files/PLK-FINAL-ANNUAL-PROGRESS-2017-220118.pdf
SciDevNet	2013	UN Initiative Mines Big Data to Direct Development	Blog/News	https://www.scidev.net/global/data/news/initiative-mines-big-data-to-direct-development.html
SciDevNet	2014	Big Data for Development: Facts and Figures	Blog/News	https://www.scidev.net/global/data/feature/big-data-for-development-facts-and-figures.html
The Chronicle of Philanthropy	2017	A MasterCard Plan for Financial Inclusion	Podcast	https://philanthropynewyork.org/news/podcast-mastercard-plan-financial-inclusion
<i>The Guardian</i>	2015	Aimia Harnesses the Power of Data Insight	Opinion	https://www.theguardian.com/sustainable-business/2015/apr/30/aimia-harnesses-the-power-of-data-insight-for-social-good
<i>The Times</i> (London)	2017	Data Is the Real Cryptocurrency Big Corporations Cannot Get Enough Of	News	https://www.thetimes.co.uk/article/data-is-the-real-cryptocurrency-big-corporations-cannot-get-enough-of-0ml3tsb0n

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Table 7.2. *Continued*

Author	Year	Document Name	Document Type	Source
UN ECOSOC Partnership Forum	2018	Partnering for Resilient and Inclusive Societies: Contributions of the Private Sector	Report	https://www.un.org/ecosoc/sites/www.un.org.ecosoc/files/files/en/2018doc/2018-partnership-forum-summary.pdf
UN ESCAP	2015	Big Data and the 2030 Agenda for Sustainable Development	Report	https://www.unescap.org/sites/default/files/Final%20Draft_%20stock-taking%20report_For%20Comment_301115.pdf
UN Global Pulse	2011	Rapid Impact and Vulnerability Analysis Fund (RIVAF) Final Report	Report	https://www.unglobalpulse.org/document/rapid-impact-and-vulnerability-analysis-fund-final-report/
UN Global Pulse	2011	Data Philanthropy: Public & Private Sector Data Sharing for Global Resilience	Blog/News	https://www.unglobalpulse.org/blog/data-philanthropy-public-private-sector-data-sharing-global-resilience
UN Global Pulse	2012	Big Data and Real-Time Analytics for Agile Global Development	Report	https://beta.unglobalpulse.org/document/big-data-and-real-time-analytics-for-agile-global-development/
UN Global Pulse	2012	Big Data for Development: Challenges & Opportunities	Report	http://www.unglobalpulse.org/sites/default/files/BigDataforDevelopment-UNGlobalPulseMay2012.pdf
UN Global Pulse	2012	Taking the Global Pulse—Using New Data to Understand Emerging Vulnerability in Real-Time	Report	https://beta.unglobalpulse.org/wp-content/uploads/2012/02/GlobalPulseBook-FINALPRINT.pdf
UN Global Pulse	2013	Big Data for Development: A Primer	Report	http://www.unglobalpulse.org/sites/default/files/Primer%202013_FINAL%20FOR%20PRINT.pdf
UN Global Pulse	2013	Mobile Phone Network Data for Development	Report	http://www.unglobalpulse.org/sites/default/files/Mobile%20Data%20for%20Development%20Primer_Oct2013.pdf

UN Global Pulse	2013	Data Philanthropy: Where Are We Now?	Blog/News	https://www.unglobalpulse.org/data-philanthropy-where-are-we-now
UN Global Pulse	2014	Annual Report 2013	Report	https://www.unglobalpulse.org/2014/02/global-pulse-annual-report-2013/
UN Global Pulse	2015	Annual Report 2014	Report	https://www.unglobalpulse.org/2015/04/global-pulse-annual-report-2014/
UN Global Pulse	2015	Improving Data Privacy & Security in ICT4D	Report	https://www.unglobalpulse.org/document/improving-data-privacy-data-security-in-ict4d-meeting-report/
UN Global Pulse	2015	Big Data for Development in Action: Global Pulse Project Series	Report	https://www.unglobalpulse.org/document/big-data-for-development-in-action-un-global-pulse-project-series/
UN Global Pulse	2016	Annual Report 2015	Report	https://reliefweb.int/report/world/global-pulse-annual-report-2015
UN Global Pulse	2016	The Importance of Big Data Partnerships for Sustainable Development	Blog/News	https://www.unglobalpulse.org/big-data-partnerships-for-sustainable-development
UN Global Pulse	2017	Annual Report 2016	Report	https://www.unglobalpulse.org/wp-content/uploads/2016/05/UNGP-Report-2016_DIGITAL-VERSION.pdf
UN Global Pulse	2017	The State of Mobile Data for Social Good	Report	http://unglobalpulse.org/sites/default/files/MobileDataforSocialGoodReport_29June.pdf
UN Global Pulse	2017	These Are the Winners of the Data for Climate Action Challenge	Blog/News	https://www.unglobalpulse.org/2017/11/these-are-the-winners-of-the-data-for-climate-action-challenge/

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Table 7.2. Continued

Author	Year	Document Name	Document Type	Source
UN Global Pulse	2018	Annual Report 2017	Report	https://www.unglobalpulse.org/document/un-global-pulse-2017-annual-report/
UN Global Pulse	2018	Experimenting with Big Data and Artificial Intelligence to Support Peace and Security	Report	https://www.slideshare.net/unglobalpulse/experimenting-with-big-data-and-ai-to-support-peace-and-security
UN Global Pulse	2019	Annual Report 2018	Report	https://www.unglobalpulse.org/sites/default/files/UNGP_Annual2018_web_FINAL.pdf
UN Global Pulse	2019	Unpacking the Issue of Missed Use and Misuse of Data	Blog/News	https://www.unglobalpulse.org/2019/03/unpacking-the-issue-of-missed-use-and-misuse-of-data/
UN Global Pulse	2020	Data for Climate Action	Blog/News	https://www.unglobalpulse.org/data-for-climate-action
UN News	2015	The UN Body with Its Finger on the Pulse of Sustainable Development	News	https://news.un.org/en/story/2015/07/503262-feature-un-body-its-finger-pulse-sustainable-development
UN News	2019	UN Makes 'Declaration of Digital Interdependence', with Release of Tech Report	News	https://news.un.org/en/story/2019/06/1040131
UN Secretary-General's High-Level Panel on Digital Cooperation	2019	The Age of Digital Interdependence: Report of the High-Level Panel on Digital Cooperation	Report	https://www.un.org/en/pdfs/DigitalCooperation-report-for%20web.pdf

UN Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development (IEAG)	2014	A World That Counts: Mobilising the Data Revolution for Sustainable Development	Report	https://www.undatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf
IEAG	2014	You Say You Want a Revolution	Blog/News	https://www.undatarevolution.org/2014/10/08/say-want-data-revolution/
IEAG	2014	The Data Revolution for Human Development	Blog/News	https://www.undatarevolution.org/2014/11/07/data-revolution-human-development/
UN Sustainable Development Goals	2015	UN Bodies Present Project Showing How "Big Data" Can Save Lives, Fight Hunger	Blog/News	https://www.un.org/sustainabledevelopment/blog/2015/04/un-bodies-present-projects-showing-how-big-data-can-save-lives-fight-hunger/
UN Sustainable Development Goals	2016	Twitter, UN Global Pulse Announce Data Partnership	Blog/News	https://www.un.org/sustainabledevelopment/blog/2016/09/twitter-and-un-global-pulse-announce-data-partnership/
United Nations	2017	"Connect the Unconnected," Deputy Secretary-General Tells Digital Technology Panel, Urging Full Inclusion to Advance Societies Everywhere	Press Release	https://www.un.org/press/en/2017/dsgsm1049.doc.htm
Urban Institute	2018	Data Philanthropy: Unlocking the Power of Private Data for Public Good	Report	https://www.urban.org/sites/default/files/publication/98810/data_philanthropy_unlocking_the_power_of_private_data_for_public_good_2.pdf

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Table 7.2. Continued

Author	Year	Document Name	Document Type	Source
Western Digital	2017	UN Global Pulse and Western Digital Announce “Data for Climate Action” Challenge Now Open for Entries	Blog/News	https://www.westerndigital.com/company/newsroom/press-releases/2017/2017-03-09-un-global-pulse-and-western-digital-announce-data-for-climate-action
Western Digital	2017	UN Global Pulse and Western Digital Announce Winners of “Data for Climate Action” Challenge	Blog/News	https://www.westerndigital.com/company/newsroom/press-releases/2017/2017-11-29-un-global-pulse-and-western-digital-announce-winners-of-data-for-climate-action-challenge
Western Digital	2018	Data-Directed Road Repairs Could Save Money and Lives	Blog/News	https://datamakespossible.westerndigital.com/data-directed-road-repairs-save-money-lives/
Western Digital	2017	What Is Data Philanthropy?	Blog/News	https://datamakespossible.westerndigital.com/what-is-data-philanthropy/
Western Digital	2017	Data Innovation: Generating Climate Solutions	Video	https://datamakespossible.westerndigital.com/data-innovation-generating-climate-solutions/
World Bank	2018	Information and Communications for Development 2018: Data-Driven Development	Book	https://openknowledge.worldbank.org/handle/10986/30437
World Economic Forum (WEF)	2011	Personal Data: The Emergence of a New Asset Class	Report	http://www3.weforum.org/docs/WEF_ITTC_PersonalDataNewAsset_Report_2011.pdf
WEF	2012	Big Data, Big Impact: New Possibilities for International Development	Report	http://www3.weforum.org/docs/WEF_TC_MFS_BigDataBigImpact_Briefing_2012.pdf
WEF	2014	Rethinking Personal Data: A New Lens for Strengthening Trust	Report	https://reports.weforum.org/rethinking-personal-data/
WEF	2015	Paving the Path to a Big Data Commons	Report	http://vitalwave.com/wp-content/uploads/2015/09/Paving-Path-Big-Data.pdf

- (a) *Creating Value.* A central objective of the WEF and its partners was to promote personal data as a valuable economic resource in a post-industrial (and post-financial crisis) environment. Echoing the “data is oil” metaphor, WEF and UN Global Pulse reports highlighted the potential for innovation, real-time connectivity, and “unprecedented” global reach of big data insights. Key to the achievement of this value was a multi-stakeholder approach, in which all parties to the transaction (as well as all of the datasets each party could contribute) could be mobilized in the service of collective gains. A personal data “ecosystem” was therefore imagined as a way to “balance” the needs of government, private industry and individuals in order to create value.³¹ In the case of data for sustainable development, a data ecosystem that brought together the “disparate worlds of public, private and civil society data” to “develop a global consensus on principles and standards” was especially important to promote big data as a source of inclusion and equality.³²
- (b) *Managing Risk.* Despite, or perhaps because of, the WEF’s elaborate claims to economic and social value, the organization was well aware of the need to account for the mounting anxieties of users and national governments over the privacy and security of their data. The greatest concern for the WEF and its partners was to maintain the “opportunity” structure of personal data collection and targeting while minimizing the risks (or at least the appearance of risk) to users and regulators. The reports therefore proposed a perspective that *distributed* risk among the various stakeholders, arguing that the “balance” created by a multi-stakeholder ecosystem model would overcome uncertainties. Three kinds of risk were identified: “the risks of private sector imbalance,” by which companies become overcompetitive in their quest for user data and decrease user trust; “the risk of public sector imbalance,” by which national governments “inadvertently stifle value creation by overregulating” data collection and surveillance, “slowing down innovation and investment”; and “the risk of end user imbalance,” by which individuals, “in the absence of engagement with both governments and business . . . self-organize and create non-commercial alternatives for how their personal data is used.”³³
- (c) *Strengthening Trust.* In response to these risks, and in the shadow of increasing political debates over the need to regulate technology

companies' data collection, by May 2014, the WEF and its collaborators had seeded the establishment of "trust networks and holistic incentive structures" among development agencies and the private sector "to facilitate data exchange but also to ensure that risk management is held to the highest standard."³⁴

In a 2014 World Economic Forum report, "Rethinking Personal Data: A New Lens for Strengthening Trust," the authors explained how these trust networks would be maintained by an approach to transparency, accountability, and empowerment that was not universal or omnipresent but rather situated and contextual. Arguing that a contingent relationship to such values constituted an evidence-based approach, the report's authors emphasized the unique properties of data-derived information to provide "real" insights for environmental governance—filling in the holes the "crafty science" climate researchers use to evaluate incomplete datasets and simulations.³⁵

For the protagonists of this data ecosystem, transparency had to be made *meaningful* in order to accrue value. "Meaningful transparency," as the WEF report called it, was tied up with a strategic approach to publicity.³⁶ In some contexts, private sector actors need to appear transparent or accountable in a given situation to gain public trust; but if "evidence" of transparency or accountability is not required, it is wiser to maintain a distance from public scrutiny. Just as James Grunig's model of situational publics presented a world in which problems only became problems when publics were incentivized to care about them, the trust networks imagined by the World Economic Forum and its peers operated along an incentive structure that appealed to self-interest as the motivation for attention and consideration.

These trust networks, with WEF and UN Global Pulse at their core, would find additional partners to help them frame ongoing data collection as a public good, while maintaining the promise of benefits to all parties and generating economic value for private sector participants:

Aligning the different interests to create a true "win-win-win" state for all stakeholders presents a challenge—but it can be done. The solution lies in developing policies, incentives and rewards that motivate all stakeholders—private firms, policy makers, end users—to participate in the creation, protection, sharing and value generation from personal data.³⁷

In the next section, we draw on findings from our interviews and participant observation to show how these principles of the data ecosystem have played out in the promotion of data initiatives for climate change action.

UN Global Pulse and the Data for Climate Action Campaign

The United Nations foresaw the rise of big data analytics as an opportunity to support the achievement of its Sustainable Development Goals (SDGs). In 2013, UN Secretary-General Ban Ki-moon authorized the formation of an Independent Expert Advisory Group on a Data Revolution for Sustainable Development. In November 2014, the Advisory Group released its first report, “A World That Counts: Mobilizing the Data Revolution for Sustainable Development.” The report makes three cases for big data as a crucial support to the achievement of the SDGs. First, it positions big data as an appropriate technological intervention that can “paint a richer picture of human development,” one where, for instance, a measurement like the Human Development Index could be expanded to include alternative development dimensions like “voice, equality, sustainability, freedom and dignity.”³⁸ Second, big data is presented as a complement to national statistical systems, increasing the diversity and accessibility of relevant data that can lead to better dialogues and decision-making. Third, the report proposes that big data could “move the world onto a path of information equality,” where every government, organization, and citizen can access—and be accountable to—the knowledge it generates.³⁹

To unlock the capacity of big data and data analytics to provide insights into sustainable development problems, gaining the participation of the private sector was key. This is the role of the United Nations Global Pulse, an “innovation lab” created in 2009 to “bring . . . together expertise from inside and outside the UN to harness today’s new world of digital data and real-time analytics for global development.”⁴⁰ A vocal proponent of the “data for good” model, Global Pulse, for the last ten years, has sought out private sector data partnerships with companies such as social media businesses and mobile telecommunications operators.⁴¹ Global Pulse’s vision has been to build “a future in which big data is harnessed safely and responsibly as a public good” through the promotion of data philanthropy and other kinds

of private-public collaboration. A Global Pulse director described the organization's *raison d'être*:

Global Pulse is the result of the only request the G20 ever made to the UN—it's not a well-known fact but it's interesting. . . . Most of what we do is not really about measuring progress. This is not about generating statistical indicators. It's about smarter implementation of programs and more effective management of risk. This is really about looking at how we can use digital evidence of human behavior to make reliable inferences about what's happening offline at the household level. (Respondent 7)

This description highlights the private sector orientation of the organization as well as its mission to “innovate” by generating alternative means of approach to public good problems.

Creating Value: Shifting Regimes of Expertise

Since a central mission of UN Global Pulse was to tout the unique expertise of the private sector in the resolution of public problems, the agency tried to downplay its own authority as an intergovernmental organization. To elevate the perceived value of company data and the unique expertise of private data owners, UN Global Pulse repositioned itself as a sort of network facilitator—a “safe partner” where companies could “work in a sandbox” and explore the applicability of corporate data to advancing the SDGs. In its role as a partnership broker between UN agencies and data companies, UN Global Pulse advises them on how to navigate the institutional, legal, and economic barriers to using privately owned big data for the public good. Through trial and error, Global Pulse has been able to refine the concept of data philanthropy and promote it as a valuable public-private partnership in the data economy. A director at UN Global Pulse characterized the organization's approach this way:

In the early days, none of them knew how to do any of this, so we were like—not that we were making it up as we went [along], but—in other words, UNICEF would say, “Well, we're interested in doing this project.” We'd be like, okay. Let's go out and partner with Twitter. And let's make sure we have someone on staff who knows how to do sentiment analysis, and how do we

coordinate with UNICEF to make sure we get the expertise in knowing what to look for? We’re basically doing full-cycle—it’s joint concept development, but like full cycle project management, and every aspect of it was us. After a few of those, UNICEF’s like, this is cool. We get it. Can you help us get a conversation going with a mobile operator in Tanzania? And then a year or two later it’s like, can you help us hire a data scientist? And now they don’t need us for anything. They’re off and running, and that’s the point. (Respondent 7)

To attract further partners and showcase the benefits of data for good to the research community and the general public, UN Global Pulse hosted two data “challenges,” the “Big Data Climate Challenge” in 2014 and the “Data for Climate Action” challenge in 2017. In collaboration with the philanthropic foundation Skoll Global Threats Fund and Western Digital (an American data technology company), Global Pulse collected a number of datasets —“donated” by companies such as BBVA Data & Analytics, Orange Telecommunications, and Waze—and provided them to teams of researchers and data scientists who had volunteered their time to compete to identify opportunities contained in the data in the service of climate action (Sustainable Development Goal #13). The challenges were promoted on YouTube and in other media, effectively functioning as public relations for the notion of D4CA. Indeed, as a climate policy advisor with the UN Secretary-General’s Climate Change Support Team explained,

We [the Support Team] had developed a strategy early on, that we wanted to flip the climate crisis on its head after Copenhagen [the 2009 UN Climate Change Conference] and reframe it as an opportunity for solutions, because the global community was getting apathetic. There was an idea that only governments could solve the problem and they had failed to do so in Copenhagen. And so we were trying to restructure the paradigm so that—you might now hear the phrase, “all hands on deck”—this is a crisis which is also an opportunity for everyone to be engaged at all levels to deliver solutions . . . so yeah, that’s how [the D4CA challenges] came about, really trying to tap into a new community of actors and a new way of delivering solutions for the climate stakes. (Respondent 6)

The phrase, “all hands on deck,” and the notion of crisis-as-opportunity underlie the strategy by which UN Global Pulse and its affiliates brought private sector companies on board to address climate change. By promoting climate

change as a major opportunity for businesses to intervene, there needed to be an enforcement of the idea that business expertise specifically was urgently required. This view is echoed by “ecological modernization” advocates such as Maarten Hajer and his collaborators, who argue that multi-lateral environmental agreements have so far failed to meet their goals because of ongoing “cockpit-ism”: a “top-down logic of steering” by which national leaders issue international policy directives from a “cockpit,” limiting the authority of other actors to participate in decision-making.⁴² Hajer and his co-authors strongly advocate the inclusion of business in decision-making around environmental policy, arguing that the “universal relevance” of climate change requires multiple participants in order to reach consensus around international action. To bring business on board, innovation and marketizability are important motives:

The SDGs need to connect to the logic of the business and finance community, and mobilize and engage them as agents of change. This requires toning down the narrative of limits and emphasizing the narrative of opportunities.⁴³

By focusing on business as “agents of change,” UN Global Pulse and its affiliates could make the SDGs into “an influential and transformative norm in the 21st century.”⁴⁴ The D4CA was one publicity element to make this happen.

At the same time, the business participants were clear about the stakes of their participation. While relatively convinced of the “data for good” model to which their participation adhered, the notion of “philanthropy” was not entirely accepted. Shared value, for data company participants in D4CA, may mean that other stakeholders benefit from their data, but not without a profit-generating motive. As the director of customer success at a participating data company explained:

NGOs should have access to some of the same tools that corporations and business have. Their use cases sometimes are not that much different. I mean, if you’re doing something on, let’s say, the UN and climate change, you want to know for example [in] which countries do people think, “it’s a hoax,” and [in] which countries do people think some action can be taken. So you’re trying to assess your audience and what they think about

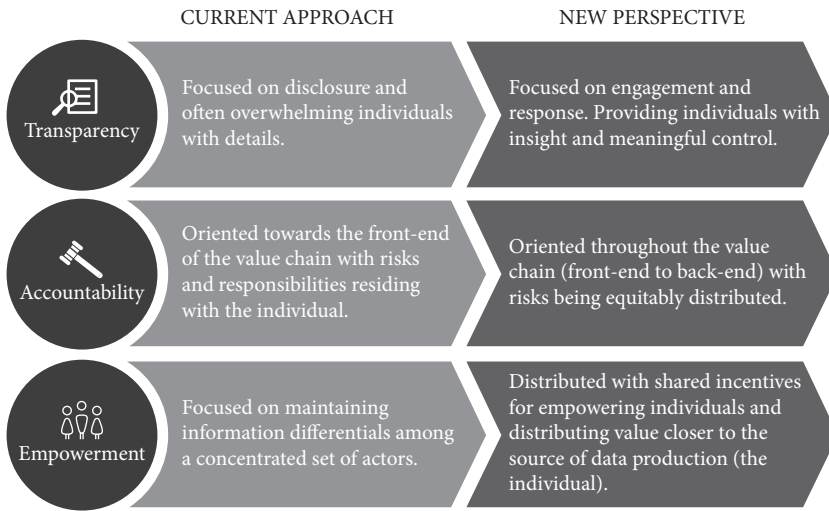


Figure 7.1. “A New Lens for Strengthening Trust.” *Source:* World Economic Forum, *Rethinking Personal Data*, 2014, 4.

something. It’s not that much different than a company trying to sell a product, trying to understand which country would be more likely to buy that product, versus [in] which country would that not sell. So NGOs should, in a perfect world, have access to the same sophisticated tools that business has. The thing is that, as *we* are a business, we can’t just give it away because there’s a lot of support and time it takes to help a customer and if they’re not paying, then we’re just losing money on it and then we’re not a viable business and we can’t help anybody. (Respondent 16)

What became clear over the course of these interviews was that “data philanthropy” was a promotional, public-facing strategy. It was good PR to call data companies data “donors”; but the practical limitations companies expressed prevented their proprietary data from being freely distributed. A member of the D4CA evaluation committee articulated the problem: “In terms of the marketing languages, you needed a hook that was very compelling. . . . [Data philanthropy] was a great term, and you didn’t for broad, awareness reasons want to pour cold water on that—but it was a term that was fraught” (Respondent 2). It just wasn’t sustainable, the committee member explained, to give it away.

Managing Risk: Climate Change as a “Safe Space” for Business

The D4CA 2014 challenge was the first data challenge launched by Global Pulse. The challenge theme, “climate action,” was considered strategic by the Global Pulse team for a number of reasons. First, there was already a global audience interested in tackling climate change issues. There was also an established community of data scientists using public data to estimate climate models. Several of these community members were interested in exploring behavioral data, such as population movement due to natural disasters, which could eventually be added to their climate models.

Third, and perhaps most closely aligned to the image concerns within the business sector, climate change was presented to potential partners as a “neutral” problem, one that would help to showcase the technical power of big data without having to confront the political contention arising from data applications in conflict settings. A member of the D4CA Evaluation Committee based at the WEF put it this way:

A. [In the environment space] in general, the concerns are more macro, and it doesn't necessarily entail, if you will, instrumenting the social structures. So when you look at water rights, or farming, you're ultimately telling a group of people or businesses, “Okay, here's how you ought to do things differently.” Versus, if it's more, you know, oceans data, or climate-related elements, you can kind of abstract a layer and say “Okay, here's how the *earth* [laughs] is changing.”

Q. You take away the agency.

A. Right, and you're, to a degree, kind of smudging away the social tensions. (Respondent 2)

If one concern from within the business community was to avoid the potential “political” implications of private-sector data use and avoid the appearance of data imperialism, a second perceived risk was the privacy element. Here the UN Global Pulse, the World Economic Forum, and other movers in the D4CA challenge aimed to present climate change as an *unobtrusive* context for action by leaning on the idea of climate change as less “risky” for businesses because it would seem less as if user privacy was at stake:

Just grabbing an example . . . me on the Weather Channel app where I’m clicking and checking stuff like that. If some of that data could be fed into a UN OCHA [Office for the Coordination of Humanitarian Affairs] dataset that would only be used in the context of a natural disaster. Then, okay, I wouldn’t feel that was an intrusion, right? (Respondent 2)

To transform climate change action from risk to opportunity, UN Global Pulse and the WEF hit on the idea of “missed use”: the risk to businesses of *not* participating in decision-making around global climate change responses. The idea of missed use was formulated as a direct response to the GDPR. While the GDPR emphasized the need to protect users from the *misuse* of their data, UN Global Pulse emphasized the need for business to avoid missing out on the uses to which their data could be put. As Robert Kirkpatrick, the director of UN Global Pulse, wrote on the organization’s website:

Just because data misuse is at the forefront of recent conversations, we shouldn’t ignore the harms associated with missed use. Lost opportunities to use big data to achieve the Sustainable Development Goals are probably to blame for at least as much harm as leaks and privacy breaches.⁴⁵

The data philanthropy framework was instrumental in presenting data for climate action in terms of “missed use.” Leaning on the shared value paradigm, UN Global Pulse emphasized the social and economic benefit to companies of donating data to environmental causes, but especially the risks they faced if they did *not* take advantage of this potential. A UN Global Pulse senior staff member described at length how this idea was conveyed during a meeting with a technology platform company:

We had this conversation with PayPal a few years ago. They were like, “Our CSR priorities are around disaster resilience and financial inclusion.” I’m like, yeah, totally, because your products—financial service products—directly fit into those two sectors in terms of outcomes, but guess what? We could use your data to understand how effective climate action is. And they were like, “We don’t do climate.” But now you [PayPal] have an ethical obligation to figure out whether you *should*. Because what if your greatest asset is actually seeing what people buy and sell in ways that interact with the

climate system? And they [PayPal] were like, “Whoa.” So there’s that aspect of it. Then there’s the companies that—you know, like a mobile operator who spends \$3 billion building tower infrastructure in an emerging market and then there’s a huge drought, and people are affected in ways that cause them to have to sell their assets and unsubscribe from the sports scores and weather updates and everything else you were counting on to monetize that infrastructure. There goes your business and—oh, but it turned out that in your data warehouse three months earlier, there were changing patterns of mobile consumption on a population movement that could have been used to identify those most vulnerable for cash transfers, for school feeding programs, for risk communication, for disaster preparedness. You just created business risk by *not* figuring out how to inform the policies that strengthen the economic resilience of your markets. (Respondent 7)

Trust in Numbers: Evidence-Based Decision-Making

The D4CA challenge invoked an evidence-based rhetoric that sees population data (or the lack thereof) as a means to justify action (or inaction) and policy interventions.⁴⁶ D4CA frames big data as the missing link in the policy-research chain;⁴⁷ a tool with unlimited possibilities that can surpass the limitations of traditional survey methods and fill gaps in regions where the lack of accurate and timely data delays the achievement of SDGs:

Surveys are a high-resolution picture. They provide very good resolution . . . but it’s a picture. It’s a snapshot of what happened in a specific area at a time. Big data analytics, however, are more like a webcam—they’re moving scenery of what’s going on in real time. Not necessarily the best in terms of resolution but enough to give you an idea of what’s going on and enough to give you an idea of whether something’s going very wrong or not. (Respondent 9)

The D4CA challenges positioned data philanthropy as a convenient and inexpensive means to access data that are not publicly available, and as a way to complement and eventually improve national statistical systems. As we have seen, the private sector outreach was a major factor for D4CA as well. A member of the D4CA Technical Committee said:

There’s lots of stuff we don’t know and lots of information that’s impossible to collect or too expensive to collect. Or you can’t go into this area because it’s a conflict area or you can’t find these people because they’re marginalized. So there’s this idea that big data could fill the gaps in our information based off official statistics, coupled with a desire to work with the private sector, coupled with a desire to be on the cutting edge, coupled with—being a couple years after the emergence of social media and that kind of massive explosion of data, as well as some very prominent examples of corporations and the private sector using big data. So I think all those came together to drive a lot of attention for [the D4CA challenges]. (Respondent 12)

Some interviewees—especially those working in intergovernmental organizations and research centers—acknowledged risks in terms of data quality, interpretation, and representation. They recognized the possible distortions of an overreliance on numbers as a means to recognize, incorporate, or govern vulnerable populations and showed concern over the tensions between data companies’ goals and those of national or regional governments.⁴⁸ One respondent engaged in a hypothetical to explain what might happen if data companies were held responsible for creating infrastructure to serve entire populations:

So, there’s interesting population statistics, and you can then infer a variety of other policy questions. Some of those policy questions may have a direct commercial impact on some of the data holders. And, just arbitrarily making something up, [if the Senegalese government said to a data company] “Hey, in this part of the country nobody’s getting access to your infrastructure. So go build infrastructure, because you’re not serving every citizen of Senegal, and we don’t really care about your commercial return. These people [are] being underserved because there’s no data accessible to them.” So then, maybe [data companies] don’t want to share, because then, all of a sudden, you can see a bias. (Respondent 2)

Conclusion

In 2018, the UN Economic and Social Council (ECOSOC) Forum, which brings together over 300 representatives of member states and a wide range of non-state actors, considered the issue of private-public collaboration in the

age of big data. ECOSOC concluded that big data is a valuable “business asset that the private sector can donate to governments for more informed public policy-making.”⁴⁹ In 2019, the High-Level Panel on Digital Cooperation—established by UN Secretary-General António Guterres and chaired by philanthropist Melinda Gates and chairman of the Alibaba Group, Jack Ma—further explored the issue of private-sector data sharing and proposed more concrete alternatives for private-public cooperation in the data economy.⁵⁰ Chapter 4 of the High-Level Panel on Digital Cooperation report, titled “The Age of Digital Interdependence,” outlines three potential mechanisms for digital cooperation: one that builds on the multi-stakeholder Internet Governance Forum; one that proposes a distributed architecture building on existing UN mechanisms, and a third that advocates a “data commons” approach with little coordination by the UN.⁵¹

This latter mechanism is at work in the report, “Sharing Is Caring: Four Key Requirements for Private Data Sharing and Use for Public Good,” by the Data-Pop Alliance. The Data-Pop Alliance, a big data think tank made up of academic researchers, data scientists, and development experts, among others, was founded by a former UN Global Pulse member, Emanuel Letouzé. As he explained in an interview in 2015, Letouzé had become disenchanted with the UN Global Pulse efforts. “I didn’t think the ‘techno-scientific’ approach and the ‘data-for-good’ narrative they embodied would make much of a difference. I thought it overlooked many aspects of the problems the world faces.”⁵²

The Data-Pop Alliance claims a more cautious stance, attempting to parse the difference between data sharing and ethical considerations. In situations of global health or humanitarian crisis, the goal is to save lives; and by this metric the idea that data *must* be shared is a powerful exhortation. But for some, the question is not how more information, delivered more quickly to more places, can be mobilized in an “all hands on deck,” consensus-oriented approach; it is to consider which human rights are most fundamental to our humanity. There is, as Letouzé argues, a considerable tension between different rights—the right to privacy, for instance—and especially between what we “can” do and what we “should” do to resolve global public problems. Climate change is by its nature a crisis of global proportions. It demands widespread participation to recognize it as a problem and to devise collective responses to apprehend it:

Our [Data-Pop Alliance’s] stance is that in modern pluralistic data-infused societies, the most fundamental human right is political participation,

specifically the right and ability of citizens and data producers to weigh in on debates about what constitutes a harm, notably through greater legal and effective control over the rights and use of their data. This perspective highlights the fundamental political nature and requirements of the (Big) Data Revolution—one that is about people’s empowerment, not just about the ability of politicians and corporations to get and use or misuse more individual data.⁵³

Still, Data-Pop Alliance, like many of the other data-driven organizations and coalitions acting on environmental problems, struggle to account for the larger problem at hand: the super-wicked problem of climate change is not the domain of “stakeholders”; it is not a matter of “contextual” formulation; and it will not bend to individual “empowerment.” Climate change requires not a situational approach but a transformed nature of being. This is not possible in a data-delimited commons, where sustainability is more likely to refer to the legacy of data-driven problem-solving than to the commitment to environmentally safe futures.

Environmental information systems structure what we see in the environment. They help determine what the problems are and what means we might draw on to solve them. They enable a certain kind of legitimacy, one that is used for policy determinations and practical approaches to resolving the problems as they have been designed. What we learn from campaigns like Data for Climate Action is that they design problems in the image of those who stand most to benefit from solving them. In their bid to render climate change more “meaningful” for interested stakeholders in realms of publicity, they operate more as promotional techniques to gain acceptance for their application than as necessary interventions in the global public crisis of climate change.

Conclusion

We're Supposed to Be Engaging

We're in a democracy, right? We're supposed to be engaging.

—Richard S. Levick

The room was mostly quiet at the Oil & Gas Public Relations and New Media Conference in National Harbor, Maryland, as Richard Levick delivered his keynote address. It was May 2015, eighteen months before the election of Donald Trump to the White House would set in motion a series of efforts to destroy federal environmental data and dismantle the environmental regulations, budgets, and research put in place over the preceding decades.¹ The conference attendees—campaign strategists, oil and gas company communications directors, political staffers, trade media, industry council groups, lobbyists, marketers, and PR professionals—were gathered around tablecloth-covered tables, wedding style, to hear Levick's presentation about the “reputational challenges and opportunities” of new media for the industry.

The conference site lay just south of the nation's capital along the shore of the Potomac River. The Potomac was a strategic waterway during the American Civil War, the war fought to preserve the democratic system of government enacted in the Constitution. Today, National Harbor is a massive mixed-use waterfront development, with a “planned community” of townhouses, “manor homes,” and condominiums as well as 350 acres of resort space with shops, restaurants, a golf course, and a casino.² Controversy in the late 1990s over the environmental hazards of the development—“aquatic impact, environmental justice concerns, and air quality/transportation questions”—had been tamped down by a legislative rider that excluded the developers from having to complete an environmental impact statement.³

It's not clear if Levick was aware of the conference site's symbolic potential. But his speech suggested a deep concern with the idea of democracy and with the seeming transformation of the system of social and economic progress that had supported the conditions of modern public life. In the 1980s, after completing a master's degree in environmental advocacy at the University of Michigan, Levick worked for the Michigan Public Interest Research Group

(PIRG), one of dozens of state organizations set up by the environmental and consumer advocate Ralph Nader to monitor members of Congress, lobby in city halls and state legislatures, and prepare national campaigns to influence political leaders and hold them accountable to their claims. At the time, Nader's commitment to organizing citizens dedicated to finding "common ground" around public problems for a "healthier, safer world" left an impression on Levick. During a visit by Nader to the Michigan PIRG in 1982, Levick told the *Washington Post* that Nader was his hero, insisting, "He's the only one in Washington I'd like to be like."⁴

Four decades later, Levick is an established Washington public affairs specialist, litigation strategist, and crisis communications expert, with a long list of high-profile industry and government clients and an eponymous PR firm whose slogan is "When you need to make the problem go away." His background as one of "Nader's raiders" is a source of pride, frequently mentioned in his speeches and interviews. It has become a currency of legitimacy for his work with clients overwhelmed by the pressures of public opinion in environmental and other high-conflict arenas.⁵

At this PR event, it was clear Levick was a seasoned speaker, and he knew his audience. There were wan smiles and nods of approval and the occasional "ohhhs" of recognition as he weaved through the tables, pausing occasionally to jab a finger at an attendee as he built his persuasive case. The problem today, explained Levick, was that we—the "we" meant to take in the oil and gas industry in general, and those charged with promoting its social and economic benefits in particular—were doing a terrible job trying to engage with our publics.

So we have this entire revolution that has taken place and we are not participating. Where are we on our great issues, the issues that we care about? Where are we on fracking? Where are we on Keystone [the Keystone XL pipeline]? On Keystone we have spent . . . we have 50 MP [midstream pipeline] companies spending \$128 million that five environmental departments and 12 environmental groups have spent, opposing it—according to the Lobbying Disclosure Act—approximately \$5 million. Sorry, how many centimeters of the Keystone pipeline have been built? Can you help me on that one?⁶

The "revolution" Levick was referring to was the upheaval in the nature of information, and especially the power it gave ordinary people to participate

in public affairs. Industrial actors are wedded to a “pre-revolutionary” style of communication, he lamented; an old-school, republican form of communication—“small ‘R,’ as in a republic”—in which the speakers maintain control over the narrative. The interactive, dialogic, authoritative nature of information in the contemporary media ecosystem gave power to those who didn’t have the financial resources or the “facts,” as Levick put it, but could capture the symbolic resources needed to push back against everything the industry stood for. Despite its long legacy of economic and political advantage, Levick insisted, the industry had lost control over the ability to define the problems facing the public.

“We are now talking about a democracy!” he cried, as the attendees shifted in their seats. “Where are we in that messaging? How are we communicating?” The task at hand, Levick insisted, was to get out in front of a problem before it became a problem. To see an issue simmering, and get it off the heat before it boiled over:

How do ideas become movements? First it’s talked about in Ridgewood [a small American town]. Very few people are conversing about it. Then it becomes slowly more and more popular. *That* is the moment when we begin to influence, before minds are made up.

“Truth is not about the facts. Truth is what we know first!” Levick added, to sighs of understanding from the room. The professional communicator’s job is to create this truth: to define the problem in one’s own terms, to engage with the publics that matter, to situate your message in their context of understanding and provide reasons and arguments to persuade them your view is valid. *This* is the role of communication in a democracy, Levick claimed. Publicity is the tool by which democratic publics and their problems are given shape and made meaningful, or contained and dispersed.

Throughout the two-day conference, during the panels, lunches, receptions, and working group sessions, the imperative for concerned publics to be engaged and to engage others in the resolution of public problems was a central theme. We heard from representatives of the House and Senate, regional trade associations, energy and environmental policy advisers, the US Chamber of Commerce, and public relations and public affairs directors in multiple sectors. David Holt, president of the Consumer Energy Alliance, a trade and lobby group with around 280 corporate members and thousands of

individual supporters, emphasized the need for attendees to develop “aspirational” communications for their publics:

Not only do we need to motivate our base and make them turn out and make them aware that jobs and the future of the nation are at stake, but we need to try to find ways to inspire and elevate that conversation. Then it makes it much easier to motivate.⁷

To inspire and elevate, to bring people together around the issues at stake, conference presenters described the repertoire of skills and techniques drawn on by the professional communications strategist. These skills and techniques will be familiar to the reader: they appear in these pages as the product of the last 100 years of PR’s progress. Creating coalitions of support across state- and local-level organizations; mobilizing third-party “grass-roots” advocates, such as employees in your organization, to speak on your behalf; crafting data points and statistics to factualize persuasive narratives; extensive media monitoring and tracking of opposing groups’ public presence; pro-energy and economic growth (and anti-regulatory) information and influence campaigns; scenario planning to anticipate problems before they start; public events designed for promotional purposes.⁸

The need for this strategic nature, the conference speakers insisted, was to bring us together around what it is we care about as citizens in a democratic society. Just as Nader had done forty years ago, industrial actors could gain adherents to their cause by finding common ground, stabilizing the territory on which public purpose could be found. Beyond the rational arguments, the finding of facts, and the critical debates stood a moral obligation to cohere around what matters, to find the conditions of compromise by which everyone could agree. For Levick, Holt, and the others, this terrain was a collective commitment to the health and safety of the environment. This was the commitment to which we could all aspire, overcoming the “us versus them” framing of environmentalism against energy production. “Every single person in this room is an environmentalist,” Holt concluded. “We are all environmentalists.”⁹

Before we dismiss this claim outright as the cynical maneuvering of a corporate shill or uphold it as a pragmatic position in an industrial energy-dependent society, it is worth considering how this rhetoric operates to constitute a notion of publics and their problems. At base, the idea that “everyone” is concerned about the same issue, that “we all” care about the

environment, and that popular decision is required to establish the environment as a matter of public concern—these are in themselves laudable goals within a participatory democracy. We need not observe the machinations of the oil and gas industry for long, however, before recognizing that the “we” is not meant to include all citizens, let alone all those affected by the industry’s degradation of environmental health; and that environmentalism is not a stable concept but a compromise object in and of itself, used to make things “sound right” to all concerned while legitimating practices that do nothing to preserve or protect the global ecosystem or to mitigate the climate crisis we currently face.

If we expand the aperture of the lens, moving out from a focus on the politics to encompass the publics who are meant to “engage” with political problems, we can better analyze the central role of public relations in American life. The true struggle seems to be lodged in the ability to define what “the public” means. In the articulation of common ground we are thinking of who may stand on this ground; and the continued emphasis on communication that encourages participation implies that the more people who come out and participate, the more robust and powerful the public. This is clearly the logic animating the practice of public relations. In its campaigns to inform and influence, its coalitions and networks, its plans for representation, its lobbies and allies, PR seeks to create majority publics who will provide consent for the project at hand.

The purpose of strategic communication is therefore to devise the rationales and incentives to persuade members of the public to engage. This is not merely about presenting the “facts” of the matter; it is about gathering up people’s concerns, of connecting to the things they care about. Most of us are familiar with the contours of this approach: persuasive appeals must capture not only the minds but also the hearts of the audience to be effective.

Public relations is nothing less than the professionalization of public-making. And in this sense, we might think its task is to produce discourses that address members of the public as a concerned public, presenting the social and political concerns of the day in a manner that engages them to take action, to debate the various sides of the affair, to come to reasonable compromises or consensus, to stand on common ground.

But this is not what takes place. The true measure of a successful public relations campaign is the extent to which it has ensured that publics do *not* form, do *not* constitute a body of concern, and do *not* raise problems as public problems. Whether in its short-term mode (e.g., crisis communications) or

its long-term strategies (e.g., issue management), public relations exists to *control* the way citizens come together to see themselves as members of a legitimate public and to recognize an issue as a legitimate problem. This is the essence of PR as a technology of legitimacy: to mediate publics and problems so that they can appear or disappear in political contexts of importance.

Public relations creates, shapes, and promotes a politics that is embedded in our major institutions, our common practices of mediated debate, and the way we collectively think about what “the public” is and what it ought to do.¹⁰ This conception of democratic politics is so deeply embedded in our habits of action that even when we fight for better representation of those voices that are continually left unheard or denied participation or the right to engage, we retain its premises rather than attempting to challenge it at its base. We turn to publicity to inform, engage, and mobilize. We seek out like-minded supporters, reduce issues to their essence, and create antagonists to shore up our own boundaries of who is inside or outside of “our” concerns and values.

In many instances, including those described in this book, public participation (“engagement”) and increased opportunities for deliberation have failed to amount to democratization, reinforcing rather than overcoming historic inequalities and maintaining the legitimacy of existing structures of authority.¹¹ This has historically been patterned by corporate and state interests, but it is not limited to these. Professionals in nonprofit and nongovernmental sectors are also invested in maintaining the political armatures of participation, deliberation, and compromise—if not for ideological reasons, then for practical ones.

The charismatic politics of the PR figures we have encountered in these pages (as well as the charisma of their data and infrastructural mediations)¹² is predicated on appeals to self-interest, immediate situations, and directly implicated concern. This is the “stakeholder” model of public formation: one that relies on participation and engagement of directly affected parties rather than the established “truths” of inconvenient facts in the realm of science or politics. A stakeholder model of publics is built around the notion of risk. Risks, especially the risks of publicity, can appear in a variety of forms: the risks of lack of public trust or confidence in state or corporate representatives; the risks of public calls for transparency in major social and political institutions; the risks that information technologies allow its users to circulate multiple perspectives. Appealing to stakeholders distributes risk among a range of “decision-makers” whose participation stabilizes and renders

more incontrovertible the outcome of debate. It establishes a ground of consensus and compromise that operates beyond scientific or economic data. It appears more legitimate and representative of social values than do the insistent claims of scientists. It is oriented to process rather than to the quality of scientific analysis.¹³

Most important, the stakeholder model of decision-making allows the facilitator of this model to determine what problems go before the public and how they are framed as problems. When Levick insists his clients “engage” with their audiences, when Holt claims that we are all environmentalists, these are expressions of how clients can take control; how they can “manage” their publics to prevent the formulation of problems that will act back on their instigators. This is the “relations” part of public relations: posing problems as contests of legitimacy among competing stakeholders whose shared communication will frame and resolve their problematic nature, protecting the true owner of the problem from full accountability.

The scholar Chris Russill has observed that the emphasis on “‘communicative’ conceptions of democracy” rooted in deliberative, participative, and conversational models of public life has left behind earlier understandings of “the authority of scientific models of inquiry in the fields of culture and politics.”¹⁴ He proposes that we return to a spirit of inquiry—the recognition of a problem as a problem—that lies at the heart of John Dewey’s and Walter Lippmann’s early twentieth-century theories of the formation of publics.

Inquiry is an idea that takes the interdependency of self and other as a precondition for the formulation of problems and the organization of publics around them. It is not about establishing direct lines of self-interest into an immediate object of concern but about a holistic conception of distant troubles and felt anxieties as part of close-up consequences. These troubles and concerns disrupt our established patterns of conduct, change our expectations of how the world works, and demand attention as social problems: “It is inquiry—the active shaping of difficulties and felt concerns as problematic situations—that brings publics into existence.”¹⁵

This “problem-responsive” account of inquiry seems especially germane to our relationship to the environment. The environment is not a problem of politics; nor is it a problem of publicity. But in making it appear that way over the last hundred years, we have turned it into something that seems to require political solutions, wielding the techniques of democracy we have at our disposal. These techniques, however, offer a model of the citizen that allows the pretense of communication, participation, and “engagement” to

substitute for the deep awareness of the environment as an interdependent system in which our actions affect the actions of others. When it comes to the environment, relying on a model of problem formulation built on controlled participation, short-term fixes, and resolvable issues will always leave intact the true nature of the problem: to create a collective sense of concern, to come to terms with the obstacles to our continued existence on the planet.

The “information and influence campaign” needed now is not one that allows everyone “to get what they want” in public affairs but to formulate the problem as one that truly affects everyone, no matter how distant or unseen. This is not a matter of crafting a more persuasive narrative, engineering a more informed debate, or developing better data. It is a problem of rethinking the relationships among our cherished concepts and their opponents, of breaking down barriers between “us” and “them,” expert and citizen, society and nature, past and future, facts and felt truths, in the articulation of what matters. That is the strategic nature we need.

What would it take to work toward this kind of campaign? In tracing the twin evolution of public relations and environmentalism in the last 100-plus years, one sees the many relations created among environment, information, and publicity; but this environmentalism is also full of cracks and empty spaces; of places, people, and problems left behind; of decisions designed to exclude; of expert knowledge crafted at the expense of existential concerns; and of extractive techniques—both material and symbolic—made legitimate through neglect of human health and nature’s balance. It is in bringing these absences to light that we can begin to reconstruct the environment as a matter of concern by which we are all truly affected and so can privilege as the ultimate public problem.

APPENDIX 1

Interviews and Observation Sites

Interviews

350.org
B-Team
Brigham Young University
Burson-Marsteller
Caplan Communications
Center for International Earth Science Information Network
Centre for Internet and Society
CEPEI Colombia
Climate Nexus
Cornell Institute for Climate Change and Agriculture
Crimson Hexagon
Earth Networks
Environmental Defense Fund
Dalberg Data Insights
DG + CO
Dow Chemical Company
DTN
Edelman
FKHealth
FSG
FTI Consulting
Global Call for Climate Action
Global Strategic Communications Council
Hoggan & Associates
Humanitarian OpenStreetMap
Kekst CNC
Interel Belgium
LIRNEasia
M + R
National Audubon Society
O'Dwyer's
Ogilvy PR
Penn State University

Procter & Gamble
Public Relations Society of America
Pulse Lab Jakarta
Qorvis Communications
Rockefeller Foundation
Sanchis & Associates, Spain
Skoll Global Threats Fund
SMK Netherlands
Spector Associates
Sustainable Energy for All
TE Connectivity
TÜV SÜD
United Nations Global Pulse
United Nations Population Fund
World Environment Center
World Economic Forum
Yale Program on Climate Change Communication
Zero to Sixty Communications
+ independent consultants

Observation Sites

2017 American Climate Leadership Summit, Washington, DC
2017 Public Relations Society of America Annual Meeting, Boston, MA
2018 The Communications Network (ComNet) Annual Conference, San Francisco, CA
2018 Data for Good Exchange (D4GX) Bloomberg, New York, NY
2018 Epidemic Readiness and Trustworthy Data Workshop (webinar), World Economic Forum
2019 Analytics Day: Data for Good, Canadian Imperial Bank of Commerce, Toronto, Canada

APPENDIX 2

E. Bruce Harrison Company, List of Clients, 1973–1997

This list, a compilation of four company client rosters, client case histories prepared by the E. Bruce Harrison Company, and a trade publication article, needs to be read against the grain.* Some of these clients are associations or coalitions formed by Harrison himself (e.g., the National Environmental Development Association [see chapter 3]); some are companies in which he used to hold positions (e.g., he was vice-president at Freeport Minerals [now Freeport-McMoRan] in the late 1960s before starting his own firm, which then represented Freeport); and some are companies with which he formed alliances to serve different industries (e.g., in 1982 Harrison was on retainer to Glick & Lorwin, Inc., a PR firm in New York City, as its “Washington presence”). Coalitions listed in the second column were also clients of Harrison. In other words, Harrison represented and provided services for the coalition as a unit in addition to performing work for individual company clients who may have been members of those coalitions.

It is also not always clear what kinds of work Harrison performed for these clients. In some cases, there are extensive and long-standing connections and multiple efforts to sidestep federal environmental regulation for clients or offset negative media coverage about them. This can be discerned by the ongoing participation by companies in different coalitions Harrison organized (among other kinds of participation, as documented in this book). In other cases, one-time services were provided. The notes in the right-hand column are taken directly from listed sources and therefore do not reflect the scale or scope of the services. Still, the list gives a general sense of the breadth of Harrison’s influence across American industries over a determinate time period (1973–1997) and of the sweeping range of companies, organizations, and sectors seeking publicity through specialized “green” public relations during this period.

Client (Source in brackets)	Type of Service or Coalition Membership
Adolph Coors Company (2) (3) (4) (6)	Employee relations; grassroots
A. E. Staley, Inc. (1)	Electricity Consumers Resource Council
Airco Educational Services (1)	Electricity Consumers Resource Council
Airco Industrial Gases (1)	Company client
Air Conditioning Contractors of North America (1)	Company client
Air-Conditioning and Refrigeration Institute (1) (5)	Company client
Air Products and Chemicals, Inc. (1) (2) (6)	Electricity Consumers Resource Council; environmental, health & safety communication; risk communication; media relations
Allied Corporation (1) [Allied- Signal (6)]	NEDA-Groundwater; NEDA-CWP
Alpha Twenty-One Corporation (1)	NEDA
Alternative Materials Institute (4)	Company client (coalition organized by Harrison); organizational management
Aluminum Company of America [ALCOA] (1)	Process Gas Consumers Group
American Association of State Highways & Transportation Officials (1)	NEDA
American Automobile Association (3)	Company client
American Automobile Manufacturers Association (3)	Company client
American Can Company (1)	Process Gas Consumers Group
American Ceramic Society (3) (6)	Company client; legislative monitoring; marketing
American Express (2) (6)	Community relations
American Meat Institute (1)	Coalition for Food Irradiation
American Medical Association (3) (6)	Company client; animal rights communications program
American Medical Laboratories, Inc. (6)	Environmental communications; media relations
American Petroleum Institute (3)	Company client
American Sugar Alliance (4)	Public affairs/grassroots communication program

Client (Source in brackets)	Type of Service or Coalition Membership
American Textile Manufacturers (2)	Environmental policy
AMFAC (3) (6)	Company client
AMREP Corporation (1)	NEDA
Anheuser-Busch Companies, Inc. (1) (2) (3) (6)	Electricity Consumers Resource Council; NEDA-CWP; environmental, health & safety communication; legislative monitoring
Annapolis Center for Environmental Quality (3)	Company client
Aristech Chemical Corporation (USX) (2) (3) (4) (6)	Environmental policy; community relations; crisis management; risk communication
Armco Inc. (1)	Electricity Consumers Resource Council; Process Gas Consumers Group
ASB Capital Management (6)	Company client; media relations
Asea Brown Boveri (6)	Marketing
Aseptic Packaging Council (3)	Company client
Ashland Oil, Inc. (1) (6)	NEDA; NEDA-CAAP
AT&T (2) (3) (6)	NEDA; environmental, health & safety communi- cation; environmental policy; employee commu- nication; marketing
Autochoice (later renamed Coalition for Vehicle Choice) (6)	Coalition; grassroots; media relations
Atlantic Richfield Company (ARCO) (1) (3)	NEDA; NEDA-CAAP; NEDA-Groundwater; NEDA-CWP; Process Gas Consumers Group
AZS Corporation (6)	Crisis management
BASF (2)	Environmental, health & safety communication; crisis management; risk communication
Bethlehem Steel Corporation (1)	Electricity Consumers Resource Council; Process Gas Consumers Group
Big B Ranch (1)	NEDA
Billy Rogers Farm (1)	NEDA
Blockbuster Entertainment (3) (6)	Company client
Blue Cross/Blue Shield of Virginia (3) (6)	Company client
Bombardier, Inc (4)	Environmental awareness campaign
Booz-Allen & Hamilton (1)	Company client
Borg-Warner Corporation (1)	Process Gas Consumers Group

Client (Source in brackets)	Type of Service or Coalition Membership
BP America (2) (3) (4)	Environmental, health & safety communication; environmental policy; benchmark studies
Braken, E. O. (1)	NEDA
Bryan Landfill (3) (6)	Company client
Building and Construction Trades Department, AFL CIO (1)	NEDA; NEDA-CAAP; NEDA-CWP
Burlington Industries, Inc. (1)	Process Gas Consumers Group
Business Roundtable (1) (4)	Company client; public affairs; media relations
CAE (3)	Company client
Campbell Soup Company (1)	Coalition for Food Irradiation; NEDA; NEDA-Groundwater; NEDA-CWP
Canal Barge Company, Inc. (1)	NEDA
Capital Yacht Club (1)	Company client
ChemGen (3) (6)	Company client
Chemical Manufacturers Association (2)	Environmental, health & safety communication
Chevron U.S.A. (1)	NEDA-CAAP; NEDA-Groundwater; NEDA-CWP
Chrysler Corporation (1) (3) (6)	Process Gas Consumers Group; grassroots; media relations
Cincinnati Gas & Electric Company (1)	NEDA
Citibank (2)	Marketing communication
Clairol, Inc. (1) (2) (6)	Company client; community relations; media relations
Clean Air Act Project (1)	Coalition; public awareness campaign
Clean Water Project (1)	Coalition
Clorox Company (2) (3) (4) [Javex: 6]	Environmental, health & safety communication; marketing communication; crisis management; recycling media program; international communication
Coalition for Vehicle Choice (3) (4) (6)	Coalition; public affairs/grassroots; environmental communications
Coca-Cola USA (2)	Environmental, health & safety communication; marketing communication; recycling media program
Colgate-Palmolive (2) (4) (6)	Environmental, health & safety communication; employee communication; corporate environmental policy; global marketing plan; international monitoring/analysis

Client (Source in brackets)	Type of Service or Coalition Membership
Computer Technologies Corporation (1)	Process Gas Consumers Group
Cone Mills Corporation (1)	Electricity Consumers Resource Council
Consolidation Coal Company (1)	Company client; NEDA-CAAP
Corning Glass Works (1)	Electricity Consumers Resource Council; Process Gas Consumers Group
Cosmair (2)	Environmental, health & safety communication
Cosmetics, Toiletry & Fragrance Association (2) (3) (4) (6)	Environmental, health & safety communication; animal rights; coalition formation; grassroots
Council of Former Governors (1)	Company client
CP Chemicals (1)	Company client
CSC Logic ,Inc. (6)	Marketing
Dallas Housing Authority (3)	Company client
Dallas International Sports Commission (6)	Community relations; media relations
Del Monte Corporation (1)	Coalition for Food Irradiation
Destec Energy (Dow Chemical Company subsidiary) (3) (4) (6)	Company client; survey, media support; marketing
Diamond Shamrock Chemical Company (1)	Electricity Consumers Resource Council
Dow Chemical Company (1)	Electricity Consumers Resource Council; NEDA-CAAP
Du Pont (2)	Community relations
Eaton Corporation (1)	Process Gas Consumers Group
Edison Electric Institute (2)	Environmental, health & safety communication
E. I. du Pont de Nemours, Inc. (1) (4) (6)	Company client; community relations; Coalition for Food Irradiation; Electricity Consumers Resource Council
Electric Power Research Institute (3) (6)	Company client
Electric Vehicle Council (1)	Company client
Electricity Consumers Resource Council (1) (5) (6)	Company client; legislative monitoring; media relations
Englehard Corporation (1) (3) (6)	Sorptive Minerals Institute
Excel-Minerals Company (1)	Sorptive Minerals Institute
Exxon Company, USA (1)	NEDA; NEDA-Groundwater
Federal Maritime Commission (1)	Company client

Client (Source in brackets)	Type of Service or Coalition Membership
Figgie International (6)	grassroots
Florida Fruit & Vegetable Association (1)	NEDA; NEDA-CAAP; NEDA-CWP
Florida Power and Light Company (1)	NEDA; crisis management
Florida Sugar Cane League (1)	NEDA
Florida Water Users Association (1)	NEDA
Floridin Company (1)	Sorptive Minerals Institute
Fluor Corporation (1)	NEDA-CAAP
FMC Corporation (1)	Company client; NEDA
Ford Motor Company (1) (3) (6)	Process Gas Consumers Group; grassroots; media relations
Fred Harvey Company (4)	Corporate environmental report preparation and promotion
Freeport Minerals Company (1)	Company client
Frito-Lay Foods (2) (6)	Community relations
Garrison Diversion Conservancy District (1)	NEDA
Gates Energy Products (6)	Marketing; media relations
Gerber Foods, Inc. (1)	Coalition for Food Irradiation
General Dynamics (2) (4)	Environmental policy; community relations
General Electric Company (1)	NEDA-Groundwater
General Foods Inc. (1)	Coalition for Food Irradiation
General Mills, Inc. (1)	NEDA-CWP
General Motors Corporation (1) (3) (6)	Company client; Electricity Consumers Resource Council; NEDA; NEDA-CAAP; NEDA-CWP; Process Gas Consumers Group; grassroots
General Signal Company (2) (3) (4) (6)	Environmental, health & safety communication; strategy development
Georgia Tennessee Mining and Chemical Company (1)	Sorptive Minerals Institute
Glick & Lorwin, Inc. (1)	Company client
Global Climate Coalition (3) (4) (6)	Company client; media relations campaign
Good Water, America (1)	Company client
Gulf Coast Waste Disposal Authority (1)	NEDA

Client (Source in brackets)	Type of Service or Coalition Membership
Gulf Oil Corporation (1)	NEDA
Halogenated Solvents Industry Alliance (1) (4)	Company client; grassroots communication program
Hartz Mountain Corporation (1)	Sorptive Minerals Institute
Hawkins Ranch (1)	NEDA
Hechinger Stores (2)	Employee communication; marketing communication
Hercules Incorporated (1)	Electricity Consumers Resource Council
Hershey Foods Corporation (1)	Electricity Consumers Resource Council ; Process Gas Consumers Group
Highway Users Federation (4)	Public affairs; alliance formation; media relations
Hoechst Celanese (2) (3) (6)	Environmental, health & safety communication; employee relations; community relations; crisis management; risk communication; public-interest counsel; media relations
Hoffman-LaRoche (3) (6)	Company client
Honeywell (1)	NEDA
Honor Guard Security Services (1)	Company client
Houston Natural Gas Corporation (1)	NEDA
IBM Corporation (1)	NEDA-CAAP; NEDA-Groundwater
ICMA Retirement Corporation (6)	Marketing
Industry Coalition for Fire Safety (1)	Company client
Industry Cooperative for Ozone Layer Protection (ICOLP) (4) (6)	Strategic direction, media relations, organizational management, daily operations; international monitoring/analysis
Institute of [for] Resource Recovery (4)	Grassroots network organizing and activation
International Association of Bridge, Structural and Ornamental Iron Workers (1)	NEDA
International Bottled Water Association (6)	Marketing
International Brotherhood of Electrical Workers (1)	NEDA; NEDA-CWP
International Hardwood Products Association (6)	Media relations

Client (Source in brackets)	Type of Service or Coalition Membership
International Union of Operating Engineers (1)	NEDA; NEDA-CWP
International Year of Disabled Persons (1)	Company client
I. V. Duncan Ranch (1)	NEDA
Join Hands (3)	Company client
Kaiser Aluminum & Chemicals Corporation (1)	Electricity Consumers Resource Council; NEDA; NEDA-CAAP; NEDA-CWP
Keystone Consolidated Industries, Inc. (3) (6)	Company client
King Ranch (1)	NEDA
Koppers Industries (2) (3) (4) (6)	Environmental, health & safety communication; crisis management; media relations
Kraft, Inc. (1)	Coalition for Food Irradiation
Laborers' International Union of North America (1)	NEDA; NEDA-CWP
Laidlaw Waste Systems (3) (6)	Company client; community relations; environmental communications; media relations
Lake County Forest Preserve District (4)	Animal rights; communication program
Las Colinas Landscape Services (6)	Employee relations
Lowe's, Inc. (1)	Sorptive Minerals Institute
LTV Steel Company (1)	Process Gas Consumers Group
Maxus Energy (3) (6)	Company client
McCormick and Company, Inc. (1)	Coalition for Food Irradiation
McDonald's Corporation (4)	Solid waste management program
McKenna & Cuneo (3) (6)	Company client
Merco Joint Venture (3) (6)	Company client; crisis management; community relations; environmental communication; grass-roots; international monitoring/analysis; legislative monitoring; marketing; media relations
Metropolitan Police District of Columbia Vest Fund (1)	Company client
Metro Washington Home Improvement Council (1)	Company client
MITRE Corporation (1)	Company client
Mitsubishi (2)	Environmental, health & safety communication; community relations; crisis management

Client (Source in brackets)	Type of Service or Coalition Membership
Mobil Oil Corporation (1) (3) (4)	NEDA; NEDA-CAAP; NEDA-Groundwater; benchmark study
Monsanto/Vista Chemical (2) (3) (4) (6)	Environmental, health & safety communication; research, worldwide monitoring, communication support activities; public affairs; legislative support; grassroots; media relations
National Agricultural Chemicals Association (4) (6)	Public affairs; media relations; environmental communications
National Association of Manufacturers (1) (5)	Company client
National Association of Private Psychiatric Hospitals (1)	Company client
National Cattlemen's Association (1)	NEDA
National Council of Agricultural Employers (1)	Company client
National Environmental Development Association (1) (3) (5)	Coalition
National Food Processors Association (1)	Company client; Coalition for Food Irradiation
Natural Gas Consumers Information Center (1)	Company client
National Home Improvement Council (1)	Company client
National Marine Services, Inc. (1)	NEDA
National Medical Enterprises (3) (6)	Company client
National Pork Producers Council (1)	Coalition for Food Irradiation
National Realty Committee (1)	Company client
National Science Foundation (5)	Company client
National Solid Wastes Management Association (4)	Media training
National Waterways Conference (1) (5)	Company client
National Women's Economic Alliance* (1) (3) (6)	Company client
New Orleans Public Service, Inc. (1)	NEDA

Client (Source in brackets)	Type of Service or Coalition Membership
North Texas Cement Company (3) (6)	Company client
North Texas Commission (4)	Coordinating proposal for Superconducting Super Collider; media relations
Norton Company (6)	Media relations
NovaCare, Inc. (3) (6)	Company client
Occidental Petroleum Corporation (1)	NEDA-CAAP; NEDA-Groundwater; NEDA-CWP
Oil-Dri Corporation of America (1)	Sorptive Minerals Institute
Olin Corporation (1)	Electricity Consumers Resource Council
Operating Industries, Inc. Landfill (4)	Community, government and media relations campaign
Owens-Corning Fiberglas Corporation (1)	Process Gas Consumers Group
Owens-Illinois, Inc. (1)	Process Gas Consumers Group
Pennzoil Company (1)	Company client; NEDA; NEDA-CWP
Pfizer Pharmaceuticals (2) (6)	Environmental, health & safety communication; crisis management; grassroots
Phelps Dodge Corporation (3)	Company client
Philip Morris (2) (3)	Environmental policy
Phillips Petroleum Company (1) (3) (6)	Company client; NEDA; NEDA-CAAP; NEDA-Groundwater; NEDA-CWP; international monitoring/analysis
Port of Port Angeles (1)	NEDA
PPG Industries [Pittsburgh Plate Glass Company] (1) (6)	NEDA; NEDA-CAAP; NEDA-CWP; international monitoring/analysis
Process Gas Consumers Group (1) (3) (6)	Company client; media relations
Procter & Gamble Company (1)	NEDA-CAAP
Pro-Trade Group (4)	Media support
Public Environmental Reporting Initiative (3) (6)	Company client
Public Service Company of Indiana (1)	NEDA
Public Service Company of New Mexico (1)	NEDA
Ralston Purina Company (1)	Coalition for Food Irradiation

Client (Source in brackets)	Type of Service or Coalition Membership
Rhône-Poulenc (2) (3) (6)	Company client; environmental, health & safety communication; community and employee relations; risk communication; media relations
R. J. Reynolds/Nabisco** (3) (6)	Company client
Rochester-Pittsburgh Coal Company (1)	NEDA
Salomon Inc. (3)	Company client
Salt River Project (1)	NEDA
Sandoz (2)	Environmental, health & safety communication
Santa Clara Landfill Coalition (3) (6)	Company client
SEED (1)	NEDA
Seifman, Semo & Slevin (1)	Company client
Sherman Wire (3) (6)	Company client
Smokeless Tobacco Council (6)	Media relations
Society of National Association Publications (1)	Company client
Society of the Plastics Industry (1)	Company client
Sonat Marine, Inc. (1)	NEDA
Sorptive Minerals Institute (1) (3) (4) (5)	Company client; federal affairs; organizational management
Southern (Power) Company (2)	Environmental policy
Standard Oil Company (Indiana) (1)	NEDA-CAAP
Standard Oil Company (Ohio) (1)	NEDA-CAAP; NEDA-Groundwater; NEDA-CWP
Stauffer Chemical Company (1)	Electricity Consumers Resource Council
Sterling Winthrop (3) (6)	Company client
Sumitomo Bank, Ltd. (6)	Legislative monitoring
Sugar Cane Growers Cooperative of Florida (1)	NEDA
Sun Company, Inc. (1)	NEDA; NEDA-CAAP; NEDA-Groundwater; NEDA-CWP
Tenneco, Inc. (1) (2)	NEDA; NEDA-CAAP; NEDA-CWP; environmental, health & safety information; environmental policy
Texaco, Inc. (1)	NEDA; NEDA-CAAP

Client (Source in brackets)	Type of Service or Coalition Membership
Texas-New Mexico Power Company (3) (6)	Company client; community and employee relations; environmental communications; legislative monitoring; marketing; media relations
Total Indoor Environmental Quality Coalition (TIEQ) (3) (4) (6)	Company client; coalition formed by Harrison
Trane Company (3) (6)	Company client
Tri-City Health Center (3) (6)	Company client
Trinity River Authority (1)	NEDA
Union Carbide Corporation (1) (3)	Company client; Electricity Consumers Resource Council
Union Oil Company of California (1)	NEDA
Uniroyal Chemical (2) (3) (4) (6)	Environmental, health & safety communication; environmental policy; government, community and employee relations; crisis management
United Association of Journeymen & Apprentices of the Plumbing and Pipe Fitting Industry (1)	NEDA; NEDA-CWP
United Brotherhood of Carpenters and Joiners (1)	NEDA; NEDA-CWP
United Fresh Fruit and Vegetable Association (1)	Company client
United Union of Roofers, Waterproofers & Allied Workers (1)	NEDA
UNOCAL (3) (6)	Company client
US Advanced Ceramics Association (4)	Trade association incorporated and developed by Harrison; organizational management
US Agency for International Development (3) (6)	Company client
US Army (2)	Risk communication
US Department of Commerce (1)	Company client
US Department of Energy (1) (5)	Company client
US Environmental Protection Agency (3) (6)	Company client; environmental communications
US Ecology (3) (6)	Company client
US Steel Corporation (1)	Electricity Consumers Resource Council
US Sugar Corporation (1)	NEDA

Client (Source in brackets)	Type of Service or Coalition Membership
Velcon Filters, Inc. (1)	NEDA
Velspar Paints (3) (6)	Company client
Waste Management [of North America], Inc. (2) (6)	Environmental, health & safety communication; community relations; grassroots; legislative monitoring; media relations
Waverly Mineral Products Company (1)	Sorptive Minerals Institute
Welder, Leo (1)	NEDA
Westcott Communications (6)	Marketing; media relations
Western Union (3) (6)	Company client
Westvaco Corporation (1)	NEDA; NEDA-CAAP
Weyerhaeuser Company (1)	NEDA-CAAP
Whitman and Ransom (6)	Crisis management
Wittenburg [sic; possible Whittenburg] J. A. III (1)	NEDA
Wood, R. L. (1)	NEDA
Wooten, Frank, Jr. (1)	NEDA
Zexel Corporation (3) (6)	Company client
Zoecon Corporation (2) (3) (6)	Community and employee relations; partnerships with local public interests; crisis management; marketing; media relations

*1. E. Bruce Harrison Company: Company & Coalition Clients (n.d.)

2. E. Bruce Harrison, Summary of Client Engagements: 1987–1997

3. E. Bruce Harrison Company, The Sustainable Communication Company: Harrison Clients (n.d.)

4. E. Bruce Harrison Company, Case History Index and Case Histories (n.d.)

5. “D. C. Agency Created First Client,” *Publicist*, March/April 1982.

6. E. Bruce Harrison Company, Client Services; Coalition and Association Clients (n.d.)

** The NWEA was created by Patricia de Stacy Harrison in 1983, ten years after she and her husband, E. Bruce Harrison, had co-founded the Harrison Associates public relations firm (Harrison & Associates would be renamed the E. Bruce Harrison Company in 1978). Source (1) lists corporate sponsors of the National Women’s Economic Alliance (NWEA) Foundation as Harrison clients. However, we have no evidence that these companies sought public relations representation by EBH. While NWEA is included as a client of Harrison’s, therefore, the corporate sponsors of that association are not included in this master list.

*** RJR Nabisco was formed in 1985 through the merger of the R. J. Reynolds Tobacco Company and Nabisco Brands food products. In 1999, in the wake of a major class action lawsuit against Big Tobacco, the R. J. Reynolds tobacco business was spun off again into a separate company.

Notes

Introduction

1. Hertsgaard and Pope, “Fixing the Media’s Climate Failure,” 12.
2. Bill McKibben, “Covering Climate Change,” Columbia Journalism Review (public event), 30 April 2019. <https://www.youtube.com/watch?v=FO9DKk07SCY&t=1498s>.
3. See Oreskes and Conway, *Merchants of Doubt*; Miller and Dinan, *A Century of Spin*; Beder, *Global Spin*; Coll, *Private Empire*; Hoggan, *Climate Cover-Up*; Mayer, *Dark Money*; Stauber & Rampton, *Toxic Sludge Is Good for You!*; Pooley, *Climate War*; Silverstein, *The Secret World of Oil*; Gelbspan, *The Heat Is On and Boiling Point*.
4. Hertsgaard and Pope, “Fixing the Media’s Climate Failure,” 14.
5. Dewey, *The Public and Its Problems*, chapter 5, “Search for the Great Community,” 143–184. Dewey also worried about conditions that favor the overspecialization of knowledge, the static hold on outdated traditions, and the sowing of partisan beliefs.
6. Lippmann, *Public Opinion*, 367. Stuart Ewen argues that this view of informed public individuals “was eloquently expressed by Thomas Jefferson in his second inaugural address, when he declared that the ‘diffusion of information and the arraignment of all abuses at the bar of public reason, should be the creed of our political faith—the text of civil instruction.’” For Ewen, “intrinsic, here, was the assumption that democracy depended on the existence of a literate middle-class public, apprised of current events, continually engaged in discussion.” Ewen, *PR! A Social History of Spin*, 50.
7. The ideas of John Dewey and Walter Lippmann have structured American theories and research on mass communication. John Durham Peters has argued that Dewey and Lippmann (along with sociologist Paul Lazarsfeld and political scientist and public policy scholar Harold Lasswell) treated “the public” as a key problem for social science. Mass communication, Peters points out, has always been about the possibilities and limitations of democracy. “A political concern for democracy is thus not only a *topic* of discourse in American mass communication theory; it is part of the *structure* of that discourse.” Peters, “Democracy and American Mass Communication Theory: Dewey, Lippmann, Lazarsfeld,” 200.
8. Craig Calhoun summarizes Habermas’s criticism of public opinion management as the “staged display” of publicity rather than an organized process of consensus formation: “Public-opinion research is more akin to the simultaneously developed field of group psychology than to democratic practice; it is an auxiliary science to public administration rather than a basis or substitute for true public discourse.” Calhoun, ed., *Habermas and the Public Sphere*, 29. See also Bourdieu, “Opinion Polls: A Science Without a Scientist.” At the Canadian Energy Summit in Toronto in 2015, a well-known pollster called public opinion research the “gamification of opinion,” referring

to the idea that opinion-making is a strategic battleground, won or lost not by what anyone actually thinks or does, but by the protagonist's ability to generate the appearance of a popular viewpoint.

9. See Sheingate, *Building a Business of Politics*, 50–65, for a longer discussion of Bernays's claims to expertise through his associations with social scientists. See also Ewen, *PR!* (chapter 8) on Bernays's transformation of Lippmann's views to promote public relations practitioners as public information specialists.
10. Bernays, "Manipulating Public Opinion: The Why and the How," 961.
11. Jansen, "Semantic Tyranny." See also Schudson, "The 'Lippmann-Dewey Debate' and the Invention of Walter Lippmann as an Anti-Democrat, 1986–1996"; and Schudson, "Walter Lippmann's Ghost: An Interview," 31–40.
12. Rabin-Havt, *Lies, Incorporated*.
13. Arendt, "Truth and Politics," 54.
14. Suchman, "Managing Legitimacy." See also Davidson and Gismondi, *Challenging Legitimacy at the Precipice of Energy Calamity*.
15. Lee Edwards argues that organizational PR appears to create "pathologies of deliberation" because it contravenes the conditions of deliberative democracy: it is driven primarily by self-interest, targets specific and not broad audiences, and uses persuasive instead of rational communication to gain power and influence. She proposes a broader interpretation of public relations as maintaining a deliberative capacity that can be deployed for democratic purposes "depending on who is using it and what they are using it for." Edwards, "The Role of Public Relations in Deliberative Systems," 74. We take this viewpoint into a slightly different direction: the extensive organizational and institutional power over systems of communication and information means that the democracy we have is inbuilt with these so-called pathologies. Following Elisabeth Clemens, our approach "does not deny that politics may be driven by self-interest but asks how 'self-interest' is constructed and under what conditions it becomes the dominant script guiding political action." Clemens, *The People's Lobby*, 9. Evaluating PR as practice is helpful to avoid stale reification or critique of solely top-down initiatives; but it leaves intact some of its most problematic aspects, such as what information is made valuable and how; justification of means to a desired end; and severe resource differentials among different organizational actors.
16. Edwards, *Understanding Public Relations*, chapter 2.
17. Edwards, *Understanding Public Relations*, 5. See also Ewen, *PR!*, 33.
18. Haas, *Epistemic Communities*.
19. Cross, "The Limits of Epistemic Communities."
20. Aronczyk, "Living the Brand"; "Understanding the Impact of the Transnational Promotional Class."
21. Edelman, *Politics of Misinformation*, 20.
22. For robust examinations of organizational coordination and influence by corporate actors in environmental politics, see Downie, "King Coal's Crown"; Barley, "Building an Institutional Field"; and secondarily, Hayden, Garner, and Hoffman, "Corporate,

- Social and Political Networks of Koch Industries Inc. and TD Ameritrade Holding Corporation.”
23. Fortun, “From Bhopal to the Informating of Environmentalism.”
 24. Fortun, “Biopolitics and the Informating of Environmentalism.”
 25. For a strong account of corporate power and its public relations in both the United States and the United Kingdom from the First World War through the twenty-first century, see Miller and Dinan, *A Century of Spin*.
 26. Marchand, *Creating the Corporate Soul*; Tiffany, “Corporate Management of the ‘External Environment.’”
 27. Ida Tarbell, *The History of the Standard Oil Company*; Upton Sinclair, *Oil!*
 28. Miller, *The Voice of Business*.
 29. Berry, *Lobbying for the People*; Bob, *The Marketing of Rebellion*; Demetrious, *Public Relations, Activism, and Social Change*; Bosso, *Environment, Inc.*; Thomson and John, eds., *New Activism and the Corporate Response*. A full list of interviews conducted for this book appears in Appendix 1.
 30. McCright and Dunlap, “Anti-Reflexivity”; McCright, “Anti-Reflexivity and Climate Change Skepticism in the U.S. General Public”; Dunlap and McCright, “Organized Climate Change Denial”; McCright and Dunlap, “The Politicization of Climate Change and Polarization in the American Public’s Views of Global Warming, 2001–2010.”
 31. Pulver, “Making Sense of Corporate Environmentalism.”
 32. Edward Walker, *Grassroots for Hire*; Tim Wood, “Corporate Front Groups and the Making of a Petro-Public.”
 33. Of course, this same strategy attends journalistic coverage. See Pooley, *The Climate War*.
 34. See Aronczyk, “Public Relations, Issue Management, and the Transformation of American Environmentalism, 1948–1992,” for an example of PR work to establish such categorization around Rachel Carson’s book, *Silent Spring*. During fieldwork at a conference for public relations counselors in the oil and gas industry in 2015, one PR firm presented slides detailing “the anatomy of an activist,” compiling data on activist targets, issues, and actions to develop a profile of the category for industrial clients.
 35. See Appendices 1 and 2 for a full list of interviews and fieldwork sites.
 36. On the gendered hierarchy of the public relations profession, see Fitch, “The PR Girl,” and Daymon and Demetrious, eds, *Gender and Public Relations*; on power in public relations, see Edwards, *Power, Diversity, and Public Relations*. On diversity and race in public relations, see Ford and Brown, “State of the PR Industry,” and Munshi and Edwards, “Understanding ‘Race’ in/and Public Relations.”
 37. Clemens, *The People’s Lobby*, 1.
 38. Conley, “Environmentalism Contained.”
 39. Boltanski and Thévenot, *On Justification*.
 40. On cultural and political framing of environmental movements and fields, see Brulle and Benford, “From Game Protection to Wildlife Management”; Lounsbury, Ventresca, and Hirsch, “Social Movements, Field Frames, and Industry Emergence.” On disciplining discourses of environmental governance, see Bartley, “How

Foundations Shape Social Movements”; Broome and Quirk, “Governing the World at a Distance: The Practice of Global Benchmarking”; Brown, De Jong, and Lessidrenska, “The Rise of the Global Reporting Initiative: A Case of Institutional Entrepreneurship.” On the strategic uses of political communication and public opinion management around the environment (among other public policy issues), see Manheim, *Strategy in Information and Influence Campaigns*; Bennett and Iyengar, “A New Era of Minimal Effects?”; Uldam, “Activism and the Online Mediation Opportunity Structure.” On rhetorical and image strategies to narrate and visualize environmentalism, see DeLuca, *Image Politics*; Dunaway, *Seeing Green*; Schneider et al., *Under Pressure*; Matz and Renfrew, “Selling Fracking”; LeMenager, *Living Oil*; Gismondi and Davidson, “Imagining the Tar Sands 1880–1967 and Beyond.” On technologies of environmental informing, modeling, mapping, and monitoring, see Gabrys, *Program Earth*; Fortun, “From Bhopal to the Informing of Environmentalism.”

41. Warner, *Public and Counterpublics*, 72.
42. Mitchell, *Carbon Democracy*, 9.
43. Mitchell, *Carbon Democracy*, 3.

Chapter 1

1. Ewen, *PR!*, 50.
2. Lloyd, “The Story of a Great Monopoly.” The business historian Thomas McCraw locates the origins of narratives documenting the adversary relationship between public and private spheres in the Progressive era, noting that Progressive history from 1901 to 1914 “recast the American experience as a continuous contest between public and private interests; that is to say, between right and wrong.” McCraw, “Business & Government: The Origins of the Adversary Relationship,” 40.
3. Schudson, *Discovering the News*.
4. Schudson discusses the simultaneous rise of news as entertainment, or “storytelling,” and as “informational ideal” marked by “fairness, objectivity, and scrupulous dispassion.” The major difference between the two genres lay in the social and political orientations of its readers as well as the professionalization of the industry of news. This is relevant to our account for a number of reasons: first, the valuation of “information” over “story” as a rationalized, fact-based endeavor was itself a moral project of elevating the news profession. The same trajectory can be seen here with both publicity and the idea of the environment. Second, the ideal of news as factual information reflects the elitism and conservatism of the brand of environmentalism (and publicity) that Americans have inherited. See Schudson, *Discovering the News*, 90.
5. We must include here Native Americans and slaves, who were treated as part of the “uncivilized nature” over which colonizers had mastery. Brulle, *Agency, Democracy, and Nature*, 117.
6. Buell, “Toxic Discourse.”

7. Turner, "The Significance of the Frontier in American History." The original version of this essay was presented at the 1893 meeting of the American Historical Association in Chicago and published in the 1893 Annual Report of the American Historical Association. A longer version was subsequently published in Turner's essay collection, *The Frontier in American History*. It is fundamentally important to acknowledge that these environmental "origin" myths, of which Turner's is only one, relied on the suppression or erasure of the environment's original inhabitants. Indigenous peoples were consistently depicted as being part of the physical nature that needed to be taken in hand by the land's colonizers. It was by the elimination of Native Americans and the control of slave labor that nature could appear unpeopled and in need of protection.
8. Cronon, "The Trouble with Wilderness," 21. Cronon is referring as well to the historical fact of removal of the original inhabitants of the land.
9. The legacy of John Muir has been subject to rethinking in our time in light of his own racist treatment of Native Americans and African Americans. See, e.g., Fears and Mufson, "Liberal, Progressive—and Racist?"
10. Muir to Mrs. Ezra S. Carr, 7 October 1874; quoted in Muir, *Travels in Alaska*.
11. Johnson, *Remembered Yesterdays*, 284.
12. Nash, *Wilderness and the American Mind*, chapter 8; Johnson, *Remembered Yesterdays*.
13. Johnson, *Remembered Yesterdays*, 112.
14. Johnson, *Remembered Yesterdays*, 240.
15. Muir, "The Treasures of the Yosemite"; Muir, "Features of the Proposed Yosemite National Park."
16. Johnson, *Remembered Yesterdays*, 287–88.
17. Nash, *Wilderness and the American Mind*, 132–33.
18. Johnson, *Remembered Yesterdays*, 291.
19. Johnson, "A Plan to Save the Forests," 626.
20. Gifford Pinchot was also one of the opinion writers in this series. In hindsight, it seems that Pinchot was rather cautious in his approval of the vision, supporting a school of forestry "established at West Point or elsewhere." Johnson, "A Plan to Save the Forests," 630.
21. "Topics of the Time: The Need of a National Forest Commission," 635.
22. Nash, *Wilderness and the American Mind*, 136.
23. Hays, *Conservation and the Gospel of Efficiency*, 36–37.
24. Muir, "The American Forests"; Muir, "The National Parks and Forest Reservations."
25. Muir, "The Wild Parks and Forest Reservations of the West."
26. Nash, *Wilderness and the American Mind*, 139.
27. Morris, *Theodore Rex*, 230–31.
28. Johnson, *Remembered Yesterdays*.
29. Lippmann, *A Preface to Politics*, 1913.
30. Garey and Hott (dirs.), "The Wilderness Idea."
31. Pinchot to R. C. Melward, 20 May 1903, Office of Forest Reserves Correspondence; quoted in Pinkett, *Gifford Pinchot: Private and Public Forester*, 53.
32. Scott, *Seeing Like a State*.
33. Peters, "Democracy and American Mass Communication Theory."

34. Johnson, *Remembered Yesterdays*, 315; Fox, *John Muir and His Legacy*.
35. Pinkett, *Gifford Pinchot*, 3.
36. Scott, *Seeing Like a State*, 19.
37. Miller, *Gifford Pinchot and the Making of Modern Environmentalism*, 103.
38. Pinkett, *Gifford Pinchot*, 26. Frederick Jackson Turner delivered his speech, “The Significance of the Frontier in American History,” at this same Chicago World’s Columbian Exposition (as well as at the American Historical Association meeting in Chicago). Amid the hundreds of new technologies, products, and inventions (including the electric light bulb) were presentations of end of the frontier and the beginning of forestry.
39. Pinkett, *Gifford Pinchot*, 26; McGeary, *Gifford Pinchot*, 31.
40. “Mr. Vanderbilt’s Forest,” *Garden and Forest*, 7.313, 21 February 1894, 71. Cited in Pinkett, *Gifford Pinchot*, 26.
41. Pinkett, *Gifford Pinchot*, chapter 5.
42. Ponder, “Gifford Pinchot: Press Agent for Forestry,” 28. For Pinchot’s own perspective on the situation, see Pinchot, “Part IV: The President Makes the Issue,” pp. 105–32 in *Breaking New Ground*.
43. Pinchot said the experience gave him “some inkling into how public opinion is credited or directed.” Ponder, “Gifford Pinchot: Press Agent for Forestry,” 28.
44. Pinkett, *Gifford Pinchot*, chapter 7.
45. Pinkett, *Gifford Pinchot*, 48.
46. Ponder, “Gifford Pinchot: Press Agent for Forestry,” 28.
47. Pinkett, *Gifford Pinchot*, 48–50.
48. Pinkett, *Gifford Pinchot*, 53.
49. Poovey, *Genres of the Credit Economy*, 80.
50. Sheingate, *Building a Business of Politics*, 16.
51. Pinkett, *Gifford Pinchot*, 82.
52. Pinchot (Forest Service, US Department of Agriculture) to Hon. Charles F. Scott (Chairman, Committee on Agriculture, House of Representatives), on the matter of using the Forestry Service resources for publicity. Congressional Record: House (30 March 1908): 4138.
53. “We prepare the news—the valuable information that is news—in such shape that the newspapers will take it, not in any sense puffing our work; simply a definite statement of facts. The newspaper men come around and get that and print it. In that way we are getting before the people, with an utterly insignificant cost—two men do all this work, and they do not spend their whole time at it—material in an amount which would cost us thousands upon thousands of dollars every year to get out if we mailed it ourselves.” Hearings before the Committee on Agriculture, Agricultural Appropriations Bill, 60th Cong., 1st sess. (1908): 276–77.
54. Pinkett, *Gifford Pinchot*, 84.
55. Ponder, “Gifford Pinchot: Press Agent for Forestry,” 35.
56. Roosevelt, *Theodore Roosevelt: An Autobiography*, chapter 11.
57. Pinkett, *Gifford Pinchot*, 53.
58. Dennehy, “First Forester: The Enduring Conservation Legacy of Gifford Pinchot.”

59. Miller, *Gifford Pinchot*, 196. That same year, Pinchot founded the Society of American Foresters, along with the first *Journal of Forestry*, to establish “professional standards in forestry.” Pinkett, *Gifford Pinchot*, 87. Its original members, mainly Yale classmates, would also find their way into roles in the Forest Service. See Gonzalez, *Corporate Power and the Environment*, for an expanded discussion of the professionalization of the environmental policy network.
60. See Gonzalez, “The Conservation Policy Network, 1890–1910.”
61. Pinkett, *Gifford Pinchot*, 36–37; 41.
62. See Ross, “From Practical Woodsman to Professional Forester.”
63. Gonzalez, “The Conservation Policy Network,” 277.
64. Miller, *Gifford Pinchot*, 220.
65. Ponder, “Gifford Pinchot: Press Agent for Forestry,” 28.
66. Pinkett, *Gifford Pinchot*, 69.
67. Miller, *Gifford Pinchot*, 226. In his autobiography, Theodore Roosevelt had high praise for Woodruff: “The idea that the Executive is the steward of the public welfare was first formulated and given practical effect in the Forest Service by its law officer, George Woodruff.” Quoted in Pinkett, *Gifford Pinchot*, 69.
68. Miller, *Gifford Pinchot*, 227. The multiple organizational structures provided the appearance of broad and varied support for his brand of conservationism; and also broadened the concept of the environment, connecting water power to forestry. This would matter considerably during the battle over water use in the Hetch-Hetchy Valley.
69. Yates, “Creating Organizational Memory.”
70. Yates, “Creating Organizational Memory.” Pinchot may have encountered vertical filing systems for the first time on display at the Chicago World’s Fair in 1893, where he began his publicity for the forests. See Pinkett, “The Forest Service: Trail Blazer in Recordkeeping Methods,” 421–424.
71. Ponder, “Progressive Drive to Shape Public Opinion,” 97.
72. Miller, *Gifford Pinchot*, 158–59.
73. Miller, *Gifford Pinchot*, 157–58; Pinchot, “The Use of the National Forests.” But see Steen, *Forest Service: A History*.
74. Miller, *Gifford Pinchot*, 228.
75. Righter, *The Battle over Hetch-Hetchy*, 215; Cronon, “The Trouble with Wilderness,” 9. There is cruel irony in calling this story any of these things. The story obliterates the primary loss by Native Americans of a 200-year connection to the land, not only in material terms but also as a sacred homeland. As anthropologist Bruce Pierini writes, “The loss of homelands at Hetch-Hetchy is, at the most profound level, a loss of a centuries-old way of life sustained by an empirically based yet mystical worldview.” Pierini, “How Did the Hetch-Hetchy Project Impact Native Americans?”
76. Sewell, *Logics of History*, 236.
77. US Congress, “Chapter 372: An Act Relating to Rights of Way,” 56th Cong., 2nd sess. (15 February 1901): 791.
78. Nash, *Wilderness and the American Mind*, 161.
79. “Begin Fight to Save the Yosemite Park,” 8.

80. Clemens, *The People's Lobby*, 28.
81. Johnson, *Remembered Yesterdays*, 309.
82. See also Oravec, "Conservationism versus Preservationism: The 'Public Interest' in the Hetch-Hetchy Controversy," who notes this same discursive tactic in Pinchot's testimony in the 1912 hearings.
83. Johnson, "A High Price to Pay for Water"; and Johnson, *Remembered Yesterdays*, 311.
84. Nash, *Wilderness and the American Mind*, 169.
85. Quoted in Nash, *Wilderness and the American Mind*, 174. This was clearly a politically motivated act. Kent was an avid hunter and a clear proponent of Roosevelt's (that is, Pinchot's) views on conservation. But he shared with his friend Muir a love of unspoiled wilderness, helping to establish the Muir Woods National Monument in 1908.
86. Johnson, "A High Price to Pay for Water," 663.
87. Oravec, "Conservationism versus Preservationism," 453.

Chapter 2

1. Mitchell, *Carbon Democracy*. In *The Public and Its Problems* (1927), Charles Dewey makes this observation: "Invent the railway, the telegraph, mass manufacture and concentration of population in urban centers, and some form of democratic government is, humanly speaking, inevitable" (110). But while the infrastructure permits the possibilities of democratic politics, Dewey cautions, its corollary—democratic publics—must come out of community and association.
2. Tedlow, *Keeping the Corporate Image*.
3. Mitchell, *Carbon Democracy*, 19–20; 26–27.
4. In addition, the shift from coal to oil de-localized its work force. Migratory and temporary laborers could not organize the way local laborers had. Mitchell, *Carbon Democracy*, chapter 1. See also Bowker, *Science on the Run*; Wylie, Shapiro, and Liboiron, "Making and Doing Politics through Grassroots Scientific Research on the Energy and Petrochemical Industries."
5. Freudenberg and Alario, "Weapons of Mass Distraction."
6. See, e.g., Tiffany, "Corporate Management of the 'External Environment.'" Today, this idea is better known as a "social license" for companies to operate. Aronczyk, "Understanding the Impact of the Transnational Promotional Class."
7. Bernays and Ivy Lee both used the term "counsel," with Bernays credited for coining it in 1913. Hiebert, *Courtier to the Crowd*, 87.
8. A good primer for understanding the industrial context that gave rise to the idea of industrial democracy is the 2016 documentary film *The Mine Wars*, directed by Randall MacLowry.
9. In this sense we can also think of the era's public relations as anticipating some of the observations of media infrastructural studies, such as the "politics of infrastructural invisibility" by which material infrastructures are disguised as part of the natural environment, or the ways that commercial data centers are retooled as sources of climate

action, which will be the focus of chapter 7. See Parks, “Around the Antenna Tree”; Brodie, “Climate Extraction and Supply Chains of Data”; Bowker, Baker, Miller, and Ribes, “Toward Information Infrastructure Studies: Ways of Knowing in a Networked Environment.”

10. These hagiographers were both PR proponents (by which we mean here industry sympathizers and conservatives) and PR men themselves, whose own multiple promotional publications about their clients and their tactics of persuasion served as sources of information for these biographies.
11. Hiebert, *Courtier to the Crowd*, 8–9.
12. Habermas, *The Structural Transformation of the Public Sphere*, 194. Habermas conflates advertising and public relations, which leads him to portray PR as uniquely about the promotion of private (mainly commercial) interests for political purposes. It also leads him to minimize the effects of public relations by treating it as a system of mediated messaging rather than as a structural phenomenon.
13. Habermas, *Structural Transformation*, 192–93; 201. There is actually a third source of writings that constitute Lee’s historical legacy: Lee’s own extensive documentation of his publicity work. In his lifetime Lee wrote hundreds of speeches, pamphlets, and articles, many of which were collected and reprinted in book form. Some covered topics germane to his clients, such as railway histories and tracts about their economic potential; but many of his writings dealt with the topic of publicity itself, creating a benchmark against which other emerging PR practitioners had to define themselves.
14. Hiebert, *Courtier to the Crowd*, 151.
15. Hiebert, *Courtier to the Crowd*, 149; see also Olasky, *Corporate Public Relations*.
16. Hiebert, *Courtier to the Crowd*, Appendix C: 338–42.
17. Mitchell, *Carbon Democracy*, 19.
18. Hiebert, *Courtier to the Crowd*, 91.
19. One campaign for the railroads involved promoting the scenic, industrial, and agricultural benefits in California to help encourage continued industrial growth in the region. Hiebert, *Courtier to the Crowd*, 59.
20. Warner, *Publics and Counterpublics*.
21. US Congress, 63rd Cong., 2nd sess., *Congressional Record* 51 (5 May 1914): 7729.
22. US Congress, 63rd Cong., 2nd sess., *Congressional Record* 51 (5 May 1914): 7729–30. See also Hiebert, *Courtier to the Crowd*, 65.
23. US Congress, 63rd Cong., 2nd sess., *Congressional Record* 51 (5 May 1914): 7818.
24. Cronon, *Nature’s Metropolis*.
25. US Congress, 63rd Cong., 2nd sess., *Congressional Record* 51 (5 May 1914): 7738.
26. “Maintenance of a Lobby to Influence Legislation” (Hearings before a Subcommittee on the Judiciary, US Senate), 63rd Cong., 1st sess. (25 June 1913): 1665.
27. US Congress, 63rd Cong., 2nd sess., *Congressional Record* 51 (5 May 1914): 7749.
28. US Congress, 63rd Cong., 2nd sess., *Congressional Record* 51 (5 May 1914): 7729.
29. Lee, “Enemies of Publicity.”
30. Hallahan, “Ivy Lee and the Rockefellers’ Response to the 1913–1914 Colorado Coal Strike,” 266.
31. Hallahan, “Ivy Lee,” 269; 270n6.

32. Hallahan, “Ivy Lee,” 271–72. Hallahan also describes how the union copied this tactic, making its own set of bulletins that looked exactly like Lee’s but gave the union position.
33. Public relations historian Kirk Hallahan called Mackenzie King “Rockefeller’s ‘other’ public relations counselor in Colorado.” Hallahan, “W. L. Mackenzie King,” 401.
34. Hiebert, *Courtier to the Crowd*, 98. See also the documentary film, *The Image Makers*, directed by David Grubin.
35. Marchand, *Creating the Corporate Soul*, 16.
36. Hallahan, “Ivy Lee,” 279.
37. Hiebert, *Courtier to the Crowd*, 102.
38. Hallahan, “Ivy Lee,” 278.
39. United States Department of the Interior National Park Service, “Ludlow Tent Colony Site,” 52. See also Andrews, *Road to Ludlow*; Gitelman, *Legacy of the Ludlow Massacre*.
40. One particularly blatant example is found in the *New York Times* on 15 September 1915, titled “Rockefeller Plies Pick in Coal Mine; Dons Overalls and Jumper and Makes First-Hand Observations of Colorado Conditions; Calls Men His Partners; Tells Them Their Interests Are Similar; Questions Coal Diggers about Wages and Work.” A popular photograph of John D. Rockefeller and William Lyon Mackenzie King touring the CF&I mine in Valdez, Colorado, was also featured in the *New York Times* on 5 October 1915.
41. Domhoff, “The Rise and Fall of Labor Unions.”
42. Barenberg, “Democracy and Domination in the Law of Workplace Cooperation,” 806–7.
43. US Congress, “A Resolution to Investigate Violations of Free Speech and Assembly” (Hearings before a Subcommittee of the Committee on Education and Labor, US Senate), 76th Cong., 1st sess., Part 37: Supplementary Exhibits (16 January 1939): 15782. Emphasis added.
44. Given the interconnectedness of coal, steel, rail, and oil in terms of industrial production as well as in ownership and intra-sector coordination, these industrial sectors were all operating along similar lines. The focus on the steel industry here is an analytical separation, not a functional one.
45. Warren, *The American Steel Industry*.
46. Mumford, “This Land of Opportunity.”
47. Quoted in Spillman, *Solidarity in Strategy*, 47. See also Bradley, *Role of Trade Associations and Professional Business Societies in America*; and Roy and Parker-Gwin, “How Many Logics of Collective Action?”
48. *National Industrial Recovery Act*, HR 5755, 73rd Cong., 1st sess., 1933.
49. Originally three addresses delivered between 1916 and 1925 to various public audiences, as well as the transcript of the question and answer period following the speeches.
50. Lee, *Publicity*, 19–20.
51. Lee, *Publicity*, 20.
52. Hill, *The Making of a Public Relations Man*, 61.

53. “A Resolution to Investigate Violations of the Right of Free Speech and Assembly and Interference with the Right of Labor to Organize and Bargain Collectively” (Hearings before a Subcommittee of the Committee on Education and Labor, US Senate), 76th Cong., 1st sess., Part 40: Supplemental Exhibits: Hill and Knowlton, Public Relations Counsel (16 January 1939): 15560.
54. “Golden Interview with John W. Hill” (Part I), 17.
55. National Labor Relations Board, “1935 Passage of the Wagner Act.”
56. “Golden Interview with John W. Hill” (Part II), 2.
57. US Congress, “A Resolution to Investigate Violations” (Part 40), 15553.
58. US Congress, “A Resolution to Investigate Violations” (Part 38), 15546.
59. Mumford, “This Land of Opportunity.”
60. White, *The Last Great Strike*, 192.
61. “What Is the N.A.M.?” 20.
62. Blumenthal, “Anti-Union Publicity in the Johnstown ‘Little Steel’ Strike of 1937,” 677.
63. US Congress, “A Resolution to Investigate Violations,” 204. Cutlip (*The Unseen Power*, 467) writes that “in this period the NAM (National Association of Manufacturers) became a client of Hill & Knowlton. The NAM and AISI (American Iron and Steel Institute) worked hand-in-glove in combating organization of steel by the SWOC (Steel Workers Organizing Committee).”
64. On the use of civic rationales to justify business dealings, see Boltanski and Thévenot, *On Justification*.
65. Citizens’ committees were already being formed around industry labor issues prior to the Little Steel Strike. For instance, a strike at the Goodyear Tire & Rubber Co. in Ohio in 1936 was met with a letter-writing campaign by a citizens’ committee, calling for an end to the strike to “maintain industrial peace and progress in this community.” See US Congress, “A Resolution to Investigate Violations” (Part 40), 15605.
66. Blumenthal, “Anti-union Publicity.”
67. The booklet, *The Men Who Make Steel*, was from Sokolsky’s pen. US Congress, “A Resolution to Investigate Violations” (Part 40), 204.
68. “Self-Evident Subtlety.”
69. “Golden Interview with John W. Hill.”
70. See, e.g., Hill, “What We Learned from the Steel Negotiations.”
71. As Karen Miller writes in *The Voice of Business*, “The early history of the Tobacco Industry Research Committee (TIRC) and the Tobacco Institute is indivisible from the history of Hill and Knowlton” (131). The TIRC’s executive director was on the payroll of Hill & Knowlton, and the contacts listed in promotional materials for the tobacco associations were Hill & Knowlton staff.
72. Spillman, *Solidarity in Strategy*, 297.

Chapter 3

1. Sewell, “Historical Events as Transformations of Structures.”
2. Prior to around 1966, environmentalists were mainly called “conservationists” (this latter title reflecting the triumph of Gifford Pinchot’s rationalized perspective on nature as resource to be managed rather than John Muir’s more communal perspective of preservation). It was through the writings of ecologists such as Barry Commoner and Paul and Anne Ehrlich as well as Rachel Carson that a “reform” environmentalism surfaced—“the insight that humanity is part of the earth’s ecosystems and thus human health is linked to the condition of the natural environment.” Carmichael, Jenkins, and Brulle, “Building Environmentalism,” 452.
3. Murphy, *What a Book Can Do*. For a strong audiovisual account of the attempt by industrial public relations to discredit Carson and her book, see the documentary film *Rachel Carson*, directed by Michelle Ferrari.
4. Marchand, *Creating the Corporate Soul*, chapter 6.
5. Andrew Hurley, *Environmental Inequalities*, quoted in Conley, *Environmentalism Contained*, 44.
6. Conley, “Environmentalism Contained.” See also Jasanoff, “Procedural Choices in Regulatory Science.”
7. Conley, “Environmentalism Contained,” 12–13. See also Sellers, *Hazards of the Job*, 1997; Hounshell and Smith, *Science and Corporate Strategy*.
8. Jasanoff, *The Fifth Branch*; Bocking, *Nature’s Experts*.
9. The AISI had initiated a research program on air pollution “after Allegheny County in Pennsylvania, home to Pittsburgh’s steel industry, passed an ordinance in 1949 mandating research by local steel firms.” The American Petroleum Institute’s Smoke and Fumes Committee was sponsoring multiple research projects by the mid-1950s. Conley, *Environmentalism Contained*, 22–23.
10. Though they paid a \$4.6 million settlement, the company denied responsibility, blaming a “freak weather condition” and a broad set of smog producers from “homes, railroads, steamboats, and the exhaust from automobiles.” See “Steel Company Pays \$235,000 to Settle \$4,643,000 in Donora Smog Death Suits.”
11. Ross and Amter, *The Polluters*, 147. For the industry perspective, see Best, “A Rational Approach to Air Pollution Legislation.”
12. Hull, “Accomplishments in Air Pollution Control by the Chemical Industry.” Retired US Army General John J. Hull was president of MCA from 1955 to 1961.
13. Quoted in Conley, “Environmentalism Contained,” 55–56; see also Ross and Amter, *The Polluters*, 147–48.
14. John E. Hull, “Accomplishments in Air Pollution Control by the Chemical Industry,” 64.
15. Conley, “Environmentalism Contained,” 56–57.
16. Harrison, “Environmental Health Committee Meeting.”
17. Grunig, “Review of Research on Environmental Public Relations.” *Public Opinion Quarterly* polls included those by Simon, “Public Attitudes Toward Population and Pollution,” and Erskine, “The Polls: Pollution and Its Costs,” as well as Erskine, “The

- Polls: Pollution and Industry.” See also Tichenor et al., “Environment and Public Opinion.”
18. On the emergence of institutional public opinion, see Sudman and Bradburn, “The Organizational Growth of Public Opinion Research in the United States.” On the use of public opinion polling in politics, see Johnson, *Democracy for Hire*. On the relationship of surveys and polls to the making of the American public, see Igo, *The Averaged American*.
 19. Harrison was promoted the following year to vice-president. The company is today called Freeport-McMoRan.
 20. Stuart Kirsch, *Mining Capitalism*. The Manufacturing Chemists’ Association (MCA) was renamed the Chemical Manufacturers Association (CMA) in 1978. Along with the name change came a change in scale and scope of the trade association. The CMA hired a new CEO, Bob Roland, with decades of experience in Washington, DC; increased dues revenue from \$4 million to \$7.5 million; and doubled its staff size. In 2000 the name changed again, to the American Chemistry Council.
 21. “D.C. Agency Created First Client.”
 22. E. Bruce Harrison’s spouse, Patricia Harrison, was co-founder of Harrison & Associates, and was vice-president of the firm.
 23. Lerbinger, “A Long View of the Environment.”
 24. In addition to its testimony on the Clean Air Act, NEDA also conducted lobbying efforts on behalf of the Poage-Wampler bill (pesticide control) in 1975. Introduced by Representative W. R. Poage (D. Tex.) and Representative William Wampler (R. Va.), members of the House Agriculture Committee, the measure was intended to allow the Agriculture Department to retain authority over decisions regarding pesticide control instead of the Environmental Protection Agency. See Anderson and Whitten, “The Washington Merry-Go-Round.” NEDA also appeared in the hearings before the Subcommittee on Water Resources of the committee on public works and transportation in 1977 amid efforts to amend the Federal Water Pollution and Control Act.
 25. “Statement of Thomas A. Young—Clean Air Act Oversight,” 93rd Cong., 1st sess. (1973), 1045.
 26. Anderson and Whitten, “Washington Merry-Go-Round.”
 27. As Thomas A. Young, president of NEDA, explained during his testimony: “As to this matter before the Subcommittee, we espouse as all men must, the objectives of the Clean Air Act—and those other objectives of full employment and economic growth essential to the general welfare of all Americans. In these and other statutory matters affecting the human environment, it is our insistent view, however, that each be pursued in a manner compatible with the attainment of the others.” “Statement of Thomas A. Young,” 1045. See also Robert Kerr, *The Rights of Corporate Speech*, 53, which describes how Mobil Oil also espoused this rhetoric of “balance.”
 28. Lerbinger, “A Long View of the Environment.”
 29. Awad, “Environment: A Continuing Arena.” Joseph F. Awad was chairman of the Committee for the Environment of the Public Relations Society of America and General Director of Public Relations for the Reynolds Minerals Company in Richmond, Virginia.

30. Thompson, “Communicators and Their Environmental Problems,” 34.
31. Galler and Littin, “Economic Impact: Perspectives for Corporate Decision-Making.”
32. Lerbinger, “A Long View of the Environment,” 20–21.
33. Buell, “Toxic Discourse,” 650.
34. See chapter 6 of Davidson and Gismondi, *Challenging Legitimacy*, for a discussion of the same discourse of scarcity as justification for oil development in the twenty-first century.
35. Mitchell, *Carbon Democracy*, chapter 7.
36. Mitchell, *Carbon Democracy*, 191.
37. “PRSA–White House Conference on Energy,” 6. This editorial appeared in the July 1974 issue of *Public Relations Journal*, which was devoted to the theme of “Communicating the Energy Crisis.”
38. Mobil Oil, “Evolution of Mobil’s Public Affairs Programs 1970–81,” I-A/5.
39. Useem and Zald, “From Pressure Group to Social Movement,” 151.
40. Shants, “Countering the Anti-Nuclear Activists.” David Sicilia, in “The Corporation Under Siege: Social Movements, Regulation, Public Relations, and Tort Law Since the Second World War,” has similarly shown the correspondence of campaign tactics across three contentious industries: chemical, tobacco, and nuclear energy, in their efforts to counter public and political pressure.
41. We are inspired here by Douglas Rogers’s notion of “corporate social technologies,” with their dual focus on sociability and materiality. See Rogers, “The Materiality of the Corporation.”
42. Conference speakers included former EPA administrator William Ruckelshaus, Petr Beckmann of the University of Colorado, Robert White-Stevens of Rutgers University, Irwin Tucker of the University of Louisville, Senator Jennings Randolph (D. W.Va.), Representative John Rhodes (R. Ariz.), Michael Moskow, director of the Council on Wage and Price Stability, and Alvin Alm, assistant administrator for planning and management at the EPA.
43. “Maintaining an Environmental Balance,” 418.
44. There had been, as early as 1973, a PRSA Task Force on Environment. Harrison’s group was the one that introduced “energy” into the equation. See “Environment: A Continuing Arena,” 2; and Harrison, “Environment Energy: Public Relations at Large.”
45. Trade journals include *Professional Remodeling: The Monthly Management and Marketing Magazine for Today’s Improvement and Expansion Contractor*, and *Hydrocarbon Processing*.
46. “D.C. Agency Created First Client.”
47. “Kenneth Bousquet Dies, Former Senate Counsel,” B7.
48. See Sicilia, “The Corporation under Siege.”
49. Quarles’s keynote address to the 1981 Annual Convention of the Air Pollution Control Association was titled “Maturing Environmentalism.”
50. Harrison would later call environmental regulatory or legislative issues “greening issues.” Personal communication, Harrison to Aronczyk, 2018.
51. William Haum, chair and vice-president of General Mills, helped found and chair NEDA-CWP.

52. Examples include Federal Water Pollution Control Act, HR 3199, 95th Cong., 1st sess. (1–4 March 1977); NEDA Clean Air Act Project, 1980–81 Plan; Quarles, “The Clean Air Amendments”; Quarles, “A Thicket of Environmental Laws”; Quarles, “EMB: Congress at Its Worst”; “Two Views: National Environmental Development Association”; “Cleaning Up the Clean Air Act: National Clean Air Coalition.”
53. Conley, “Environmentalism Contained,” 2.
54. Several of the issue papers were assembled into a workbook, *Clean Air Act & Industrial Growth*, and distributed broadly to members of Congress.
55. “Two Views: National Environmental Development Association.”
56. Quarles, “The Clean Air Amendments.”
57. Harrison, “Is ‘No Growth’ Really Ahead?” Emphasis in original. See also Harrison, “Clean Air Act,” and “EPA Reaches Out.”
58. “Grassroots Involvement: Key to Issue Management.”
59. “Grassroots Public Relations.”
60. Mitchell, *Carbon Democracy*, 176.

Chapter 4

1. Not including affiliates. See “Golden Interview with John Hill,” 304. See also “John W. Hill, 86, Dies; Led Hill & Knowlton,” 43.
2. It was not just that companies saw their functions as being aligned with the public interest; it was that they saw no conflict between private and public interests. See, e.g., Aronczyk, *Branding the Nation*, 42–3, on how the dictum, “What’s good for General Motors is good for America,” emerged as a justification for the GM president’s nomination to U.S. Secretary of Defense under President Eisenhower.
3. Punctuated by a massive oil spill in Santa Barbara, California, in 1969, and four additional spills in the next several months. See Hoffman, *Heresy to Dogma*, 56.
4. Vogel, *Fluctuating Fortunes*, 65.
5. Habermas, *Structural Transformation*, chapter 6.
6. Vogel, *Fluctuating Fortunes*; Walker, “Legitimizing the Corporation through Public Participation”; Mizruchi, *The Structure of Corporate Political Action*; Schuler, “Corporate Political Action: Rethinking the Economic and Institutional Influences”; Kay and Tierney, *Organized Interests and American Democracy*; Laumann and Knoke, *The Organizational State*.
7. Barley, “Building an Institutional Field.”
8. Powell’s Memorandum warned about the social and political threat to the American free enterprise system, arguing that corporations and industry must wrest control of the economy from leftist inclinations: “Conservatives must capture public opinion by exerting influence over the institutions that shape it: academia, media, church, courts.” Powell, “Attack on the Free Enterprise System.” Powell, who was in 1971 a corporate lawyer, would go on to become a Supreme Court justice, with considerable influence over such institutions. In 1973, top US Steel public relations counselor

William G. Whyte spoke before the PRSA. As part of a task force appointed by the president of the US Chamber of Commerce to coordinate actions around the Powell memo, he and other PRSA members directed the preparation of an information kit for distribution to local Chambers of Commerce (other kits were prepared for state chambers and for trade and professional associations). Called the Interpreting Business Kit, it contained guidelines for these organizations to promote the values of private enterprise to as many segments of society as possible: public relations advisors, as the managers of the image of business, were to play a central role: “We are living in a different world, one that makes the role of the public relations official ever more important. . . . [N]o place in the Nation does the slipping image of business come home to roost any more than it does in Washington, DC. There—image, power, and influence are pretty closely related. And when one slips, so does the other.” Whyte, “Remarks before Public Relations Society of America.”

9. On corporate grassroots strategies, see Walker, *Grassroots for Hire*; on cooperative oligopolies, see Munkirs & Sturgeon, “Oligopolistic Cooperation”; on interlocking directorates, see Hayden et al., “Corporate, Social and Political Networks.”
10. In this sense, we may see PR actors’ positionings of authority as engaging in the same kinds of politics underlying the legitimacy contests of science advisory committees. See Jasanoff, *The Fifth Branch*.
11. Edwards and Hodges, eds., *Public Relations, Society and Culture*. 3. This is different from the Habermasian understanding that PR is a kind of staging: “The consensus-concerning behavior required by the public interest, or so it seems, actually has certain features of a staged ‘public opinion.’ . . . The resulting consensus, of course, does not seriously have much in common with the final unanimity wrought by a time-consuming process of mutual enlightenment, for the ‘general interest’ on the basis of which alone a rational agreement between publicly competing opinions could freely be reached has disappeared precisely to the extent that the publicist self-presentations of privileged public interests have adopted it for themselves.” Habermas, *Structural Transformation*, 193–95.
12. Boltanski and Thévenot, *On Justification*, 278.
13. Boltanski and Thévenot, *On Justification*, 281.
14. Dunlap, *DDT: Scientists, Citizens, and Public Policy*, 3. For an example of cinematic footage, see *The Story of DDT*.
15. Berry, *Lobbying for the People*; Clemens, *The People’s Lobby*; Vogel, “The Public Interest Movement and the American Reform Tradition.”
16. See David Vogel, “The Public Interest Movement.”
17. Bosso, *Environment, Inc.*, 42.
18. Dunlap, *DDT*.
19. Carroll, “Participatory Technology,” 649.
20. Carroll, “Participatory Technology,” 649.
21. The two cases were Scenic Hudson Preservation Council v. the Federal Power Commission (1965), also known as the Storm King case; and Sierra Club v. Morton (1972), whose opinion was drafted by the Supreme Court based on the Storm King case. Lambert, “Scenic Hudson and Storm King.”

22. Carroll, "Participatory Technology," 650.
23. See Melnick, *Regulation and the Courts*.
24. "Through their mere choice of words, self-described defenders of the 'public' interest implicitly condemned the 'private' sector for its inability to protect consumers, citizens, and the environment. And no one person typified that animus more than a young lawyer named Ralph Nader." Waterhouse, *Lobbying America*, 38.
25. Whiteside, "Profiles: A Countervailing Force—I," 84.
26. Drew, "A Reporter at Large: Conversation with a Citizen," 39.
27. Björk, "Emergence of Popular Participation in World Politics."
28. Lesly, "Survival in an Age of Activism," 8.
29. Moore, "Environment: A New PR Crisis," 7.
30. Brandt, "Wanted: Environmentalists," 19.
31. Hill & Knowlton, "Slings and Arrows," 2.
32. Hill & Knowlton, "Slings and Arrows," 4.
33. Hill & Knowlton, "Slings and Arrows," 31–32.
34. Wessel, *Science and Conscience*, 34.
35. Wessel, *Science and Conscience*, 28.
36. Wessel, *Science and Conscience*, 201; Wessel, *Rule of Reason*, 21; 202.
37. Parisi, "Book Brings the Rule of Reason to Corporation-Public Clashes."
38. Wessel, *Rule of Reason*, xi.
39. Sethi, "Corporate Political Activism," 40.
40. "New Ways to Lobby a Recalcitrant Congress," 148. See also Freed, "Melding PR and Lobbying Impact."
41. As Donald Colen, vice-president and director of public affairs of New York Citibank claimed: "In public relations now, all roads lead to the Hill" (quoted in Harrison, "Washington Focus"). This alliance between lobbyists and PR would shift again in the late 1980s in the aftermath of news investigations into "honoraria" paid to congresspeople. See Jackson, "Easy Money"; Kenworthy, "Courting the Key Committees."
42. "Juice: The Future of Power and Influence in Washington." See also Moore, "Have Smarts, Will Travel."
43. Wittenberg and Wittenberg, *How to Win in Washington*.
44. "New Ways to Lobby a Recalcitrant Congress," 148. See also Jones and Chase, "Managing Public Policy Issues," 9: "In the world of today, the diverse activities we call government and public relations, lobbying and issue advertising, must all be part of an integrated management strategy."
45. Harrison, "Washington Focus."
46. Swetonic, "Death of the Asbestos Industry," 9.
47. Similar initiatives took place around the same time within the dispute resolution forums at Harvard Negotiation Project, an initiative piloted in 1979 that led to the subsequent publication of *Getting to Yes*, by project leaders Roger Fisher and William Ury.
48. Dunlap, *DDT*, 235.
49. Dunlap, *DDT*; Conley, "Environmentalism Contained."

50. Wessel, *Science and Conscience*, 145.
51. Wessel, *Science and Conscience*, 142.
52. Wessel, *Science and Conscience*, 155.
53. Wessel, *Science and Conscience*, 157.
54. Wessel, *Science and Conscience*, 158.
55. Rich and Jacobson, “Alternative Dispute Resolution,” 30.
56. Rich and Jacobson, “Alternative Dispute Resolution,” 30–31.
57. Rich and Jacobson, “Alternative Dispute Resolution,” 32.
58. Schudson, *Rise of the Right to Know*, 1.
59. Schudson, *Rise of the Right to Know*, 181, 185–86.
60. LeMenager, *Living Oil*, 45.
61. LeMenager, *Living Oil*, 45. See also the documentary film, *How to Change the World*, about Greenpeace’s innovative adoptions of media and high-profile, dramatic events to gain public attention. Greenpeace’s legacy is evident in more recent climate awareness campaigns by organizations such as Extinction Rebellion and popular movements such as school climate strikes. Its legacy was also apparent in some of our interviews with industrial public relations actors. One derisively characterized climate activists who used such publicity tactics as “these people who seem to be sensational opportunists that are trying to play upon the emotions without any real fact behind their arguments, because they just want to buy a boat”—in reference to Greenpeace’s origins in 1971, when a group of activists sailed from Vancouver to Amchitka Island in Alaska in a fishing boat to protest President Nixon’s nuclear weapons tests.
62. Brown and Waltzer, “Buying National Ink.”
63. Brown and Waltzer, “Every Thursday,” 25.
64. Schmertz and Novak, *Goodbye to the Low Profile*, 139.
65. Schmertz and Novak, *Goodbye to the Low Profile*, 20. For an overview of Schmertz’s approach to public relations, see St. John III, “The ‘Creative Confrontation’ of Herbert Schmertz.”
66. Sethi and Schmertz, “Industry Fights Back,” 20.
67. Mobil Oil, “Evolution of Mobil’s Public Affairs Programs,” I-C/5.
68. Schmertz and Novak, *Goodbye to the Low Profile*, 145.
69. LeMenager, *Living Oil*, 146.
70. Brown and Waltzer, “Every Thursday,” 200–201. Mobil continued to place advertorials after the year 2000, though with less frequency. Geoffrey Supran and Naomi Oreskes count Mobil’s more recent advertorials (1989–2004) as part of a large-scale campaign by the company to sow doubt around climate science. See Supran and Oreskes, “Assessing ExxonMobil’s Climate Change Communications.”
71. Mobil Oil, “Evolution of Mobil’s Public Affairs Programs,” I-C/9.
72. Mobil Oil, “Evolution of Mobil’s Public Affairs Programs,” I-C/10.
73. Mobil Oil, “Evolution of Mobil’s Public Affairs Programs,” I-C/10; II-B/12.
74. Schmertz and Novak, *Goodbye to the Low Profile*, 210.
75. Mobil Oil, “Evolution of Mobil’s Public Affairs Programs,” 216.
76. Mobil Oil, “Evolution of Mobil’s Public Affairs Programs,” 221–30.
77. Jarvik, “PBS and the Politics of Quality,” 265.

78. Kerr, *The Rights of Corporate Speech*, 2.
79. Chase, *Issue Management*, 6–7; Sonnenfeld, *Corporate Views*; David Rockefeller, “Free Trade in Ideas,” *Chief Executive Magazine*; Aronczyk, “Public Relations, Issue Management, and the Transformation of American Environmentalism.”
80. Harrison, “Green Communication.”
81. Sethi, “Corporate Political Activism,” 38.
82. Sethi, “Corporate Political Activism,” 34. See also Sethi, “Serving the Public Interest.”
83. Cohen, “Business Lobby,” 1050.
84. McFarland, *Cooperative Pluralism*.
85. Vietor, *Environmental Politics and the Coal Coalition*.
86. The late 1960s and the 1970s were also a period in which coal miners took part in thousands of wildcat strikes. See, e.g., Turl, “The Miners’ Strike of 1977–78.”
87. National Coal Policy Project, Hearing before the Subcommittee on Energy and Power, 95th Cong., 2nd sess. (10 April 1978): 2–3.
88. Moyer, “Where We Agree,” 971.
89. Quoted in Hoffman, *Heresy to Dogma*, 93.
90. “National Coal Policy Project a Mixed Success,” 8.
91. Harrison, “Rule of Reason,” 1.
92. Bosso, *Environment, Inc.*, 130.
93. Buchholz et al., *Managing Environmental Issues*, vii–xiii.
94. “We Can Work with You,” 7.
95. “We Can Work with You,” 7.
96. Libbey, “Conservation and the Corporation.” For more on the “smooth operatives” of the Nature Conservancy, see Wood, “Business-suited Saviors of Nation’s Vanishing Wilds.”
97. “Union Camp, Georgia Pacific, and Dravo Donate Key Natural Areas,” 1.
98. “We Can Work with You.”
99. “Environmental Partnerships Help Business Find Effective Solutions.”

Chapter 5

1. “Coordination with the United Nations System.”
2. The Brundtland Report, formally titled *Our Common Future* (1987), laid out principles for sustainable development that united concerns of northern and southern countries. It famously defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” It was prepared by the World Commission on Environment and Development, chaired by Gro Harlem Brundtland, former prime minister of Norway.
3. See Bernstein, *The Compromise of Liberal Environmentalism*, for a detailed examination of UNCED and its impacts on the path formation of sustainable development for UNCED.

4. Bernstein, *The Compromise of Liberal Environmentalism*, 48.
5. Sklair, “The Transnational Capitalist Class and the Discourse of Globalization”; Levy, “Environmental Management as Political Sustainability”; Bernstein, *Compromise*.
6. Bernstein notes that some studies identify the same features but refer to it as “ecological modernization” or even just “sustainable development.” *Compromise*, 7.
7. Pattberg, *Private Institutions and Global Governance*.
8. Pallemmaerts, “International Environmental Law from Stockholm to Rio,” quoted in Bernstein, *Compromise*, 50.
9. Note that the concept and term “sustainability” did not emerge with the UNCED. Already by the mid-1970s, the UN Environment Programme, led by Maurice Strong, was advocating sustainability (if not sustainable *development* as a specific term), and this notion contained within it a commitment to economic growth along with improvement of the living conditions in the developing world. Bernstein, *Compromise of Liberal Environmentalism*, 56.
10. There was non-American public relations action around environmental problems as well, primarily in Britain but also in Australia (where public relations emerged especially to address the activities of the mining industry; see Kirsch, *Mining Capitalism*). But by and large, public relations followed the patterns of colonial or quasi-colonial expansion common to most promotional industries, as corporate outposts of major media and marketing conglomerates such as Omnicom, WPP, or Edelman set up shop across international territories. These patterns are examined in Miller and Dinan, *A Century of Spin*. In this chapter, we show to what extent international environmental policymaking in this time period was predicated on unifying styles and structures of influence through multinational corporate power, coordinated and shaped by mainly American public relations. See Levy and Newell (eds.), *The Business of Global Environmental Governance*, for representative case studies of corporate power to standardize environmental rule-making.
11. Bernstein, *Compromise*, 49.
12. Parenti, “The Limits to Growth: The Book that Launched a Movement.”
13. Hecox, “Limits to Growth Revisited: Has the World Modeling Debate Made any Progress?” See also Elichirigoity, *Planet Management*.
14. Although the report had not yet been published when the conference took place, it nevertheless had a strong influence on the conference’s articulation of the problem of the human environment. According to Bernstein, UNCHE organizer Maurice Strong met with MIT professors involved in the research for the report, including Jay Forrester and Donella Meadows, in January 1971. Bernstein, *Compromise of Liberal Environmentalism*, 41–42.
15. “If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next one hundred years.” *Limits to Growth*, 21.
16. Meadows et al., *Limits to Growth*, 21.
17. See Forrester, *World Dynamics*.
18. Edwards, *A Vast Machine*, 369.
19. United Nations, *An Action Plan for the Human Environment*, 13.

20. On the culture of expertise and information management around the Infoterra database, see Aronczyk, “Environment 1.0.”
21. Edwards, *A Vast Machine*, 358–59.
22. Aronczyk, “Public Relations, Issue Management, and the Transformation of American Environmentalism.”
23. As we saw in chapter 3, companies such as Mobil Oil explicitly designed information and influence campaigns to counter the argument in *Limits to Growth*. See also Caradonna, *Sustainability: A History*.
24. Bernstein, *Compromise*.
25. Haas, *Epistemic Communities, Constructivism, and International Environmental Politics*.
26. Cross, “The Limits of Epistemic Communities.”
27. Levy and Newell, *The Business of Global Environmental Governance*, 2.
28. Levy and Newell, *The Business of Global Environmental Governance*, 2–3.
29. Stone, “Transfer Agents and Global Networks in the ‘Transnationalization’ of Policy,” 556.
30. Stone, “Transfer Agents and Global Networks,” 557. See also Aronczyk, *Branding the Nation*, for an elaboration of how consultancies promote global market expertise for national territories.
31. Hoffman, *From Heresy to Dogma*.
32. Revzin, “Brussels Babel: Europeans Are Writing the Rules Americans Will Live By.” See also Revzin, “United We Stand . . .”
33. AEF, “Monitoring Project on Behalf of E. Bruce Harrison Company,” 5; Doyle and May, “Europe Readies Environmental Standards.”
34. In 1989, EnviroComm also helped to set up an interparliamentary network based in Brussels called the Global Legislators Organization for a Balanced Environment (GLOBE). Made up of a group of eight industrialized nations (G8), the network’s mission was “to respond to urgent environmental challenges through the development and advancement of legislation.” Personal interview, 2017. EnviroComm would provide input for their agendas based on their clients’ issues. See “GLOBE International: History”; and “GLOBE EU 1989–1999: Ten Years of Action for the Environment.”
35. Andersson Elffers Felix, Monitoring Project on Behalf of E. Bruce Harrison Company Concerning the EC Environmental Legislation Process, Utrecht/Brussels.
36. See, e.g., Harrison, “A QUALITY Approach to Environmental Communication.”
37. See, e.g., an interview with the Wittenbergs on the American cable-satellite television public affairs network, C-SPAN: “Grassroots Lobbying in Washington.”
38. “The Amplifier,” 66. See also Kuethe, “Access as Bargaining Chip,” Van Heuverswyn & Schuybroek, “Lobbying: An Old Profession Rediscovered”; Zagorin, “The Euro Peddler.”
39. E.g., Wittenberg, “In Brussels, a ‘Gucci Gulch.’” Throughout the 1970s and 1980s, Wittenberg ran his own public relations firm in Washington and was frequently cited in the media as an expert in image and influence, both in Washington and abroad. See, e.g., Maxa, “Image and Influence: The Public Relations Profession in Washington”;

- Gamarekian, “Foreign Image-Making: It’s a Job for the Experts”; Gailey, “Matching Congressmen and Executives, for a Price.” Wittenberg also wrote and spoke extensively about the value of public affairs for democracy. See, e.g., Wittenberg, “How Lobbying Helps Make Democracy Work,” a speech delivered to the Brazilian Public Relations Congress in Brasilia on 2 September 1982.
40. Michel, “A Bruxelles Si Vous Ne Voulez Pas La Subir.” (“To Brussels if You Don’t Want to Suffer.”)
 41. United Nations Environment Programme, “World Industry Conference on Environmental Management (WICEM): Outcome and Reactions,” 3. As a show of the common ground on which industry, governments, and development groups could stand, the conference featured speakers from all three sectors. William Ruckelshaus, first head of the Environmental Protection Agency in 1970, spoke of partnerships such as Clean Sites, Inc. as “bridging institutions” between industry and government as well as between industry and environmentalists. David Roderick, chair of U.S. Steel, called for a vision of environmental improvement and industrial development as “sensibly balanced—to the benefit of all and the detriment of none.” The WICEM I speech by the chair of the World Commission on Environment and Development, Gro Harlem Brundtland, centered on sustainable development as a requirement for environmental protection. “There is no choice of either/or,” she told the assembled delegates. “We can only achieve sustainable growth provided we manage to protect the environment and we shall only succeed in protecting the environment if we can accomplish sustainable growth.”
 42. US companies in attendance at WICEM I: Air Products & Chemicals, Inc., Alcoa, American Paper Institute, ARCO, Bechtel Group, The Business Roundtable, Dow Chemical Co., Du Pont, Ebara International Corp., Exxon Corp., Ford Motor Co., Gulf Oil Co., IBM, Mitchell Energy Co., Mobil Oil Corp., Monsanto, Motor Vehicle Manufacturers Association, Procter & Gamble Co., SKF Steel, Inc., Standard Oil Co., Tenneco, Inc., Texaco, Inc., 3M Center, TRW Inc., Union Oil Center, U.S. Council for International Business, U.S. Steel Corp., W. R. Grace & Co., World Environment Center. Other delegates are listed in Sallada and Doyle (eds.), *The Spirit of Versailles: The Business of Environmental Management*.
 43. Founding members included Ciba-Geigy, Monsanto, Henkel, and 3M, with David Roderick of U.S. Steel as chair of its board of directors.
 44. See Power, “Expertise and the Construction of Relevance,” on the expansion of expertise among accountants who are increasingly called on in this time period to evaluate voluntary schemes for environmental auditing. Power sees this as part of a “managerial turn” in environmental regulation, engendering new instruments of control while destabilizing the categories of independent scientific expertise. See also Hajer, “Verinnerlijking’: The Limits to a Positive Management Approach.”
 45. “WICEM II: The Expected Results: First Brainstorming Session.” 11–12 December 1990. Zurich. Unpublished; copy in possession of authors.
 46. For a complete list of E. Bruce Harrison Co. clients, see Appendix 2.

47. “The Nairobi Code for Communication on Environment and Development,” 85. See also IPRA, “View from the Gallery: A News Bulletin of the International Public Relations Association.”
48. See, e.g., Popoff, “Corporate America: An Agenda for What’s Right in the ’90s.” Frank Popoff was president and chief executive officer of the Dow Chemical Company. The PRSA formed an Environment Section in 1992, hosting conferences and publishing newsletters on topics such as “Turning Green without Getting Black and Blue,” and “Environmental Stewardship: Coming of Age in the ’90s,” and “Smart Environmentalism,” the latter billed as “public policy and private practice that’s based on priorities and partnering, consensus and common sense, and, most importantly, environment-with-economics.” PRSA Positioning Statement: Smart Environmentalism.
49. Harrison, “Green Communication in the Age of Sustainable Development,” 5. The article, prepared in the form of a brochure for IPRA members, was funded by a grant from Alcan Smelters & Chemicals Ltd. IPRA, “View from the Gallery.”
50. Harrison, “Counseling Companies on Environmental Communication.”
51. EnviroComm network firms with tobacco clients include Interel (Philip Morris); Kohtes Klewes (Lucky Strikes); Sanchis (R. J. Reynolds); and Trevor Russel (Philip Morris). Based also on a report prepared by the E. Bruce Harrison Company for R. J. Reynolds advocating a European expansion of public affairs capabilities, we surmise that Harrison envisioned EnviroComm as a European platform from which to counter or weaken legislation on tobacco and/or air quality. See E. Bruce Harrison Company, “A Proposal to Serve RJR.” The case of EnviroComm matches research findings on the sharing of strategic information across contentious sectors including tobacco, fossil fuels, and chemicals. See White and Bero, “Corporate Manipulation of Research”; Oreskes and Conway, *Merchants of Doubt*; Union of Concerned Scientists, “Smoke, Mirrors, and Hot Air”; Center for International Environmental Law, “Smoke and Fumes.”
52. EnviroComm, “Franchise Agreement.” Unpublished; copy in possession of authors.
53. EnviroComm Franchise Network List. Unpublished; copy in possession of authors.
54. Fortun, *Advocacy after Bhopal*, 63–65.
55. Garcia-Johnson, *Exporting Environmentalism*, 72.
56. Fortun, *Advocacy after Bhopal*, 65.
57. Fortun, *Advocacy after Bhopal*, 65.
58. EnviroComm, “Responsible Care & Environmental Community Relations.”
59. EnviroComm, “Environmental Reputation Benchmarking.”
60. United Nations, “Agenda 21: Programme of Action for Sustainable Development,” 237. Agenda 21 was also enforced in a range of other organizations with which Harrison and/or his clients were involved: the United Nations Environment Programme (UNEP), the International Chamber of Commerce (ICC), the U.S. Council on International Business (USCIB), the Chemical Manufacturers Association (CMA), the Global Environmental Management Initiative (GEMI), the International Network for Environmental Management (INEM), and the US Business Roundtable.

61. EnviroComm, “EnviroComm Europe Issues Brief: Environmental Standards Systems Set Off a Scramble.”
62. Gordon and Johnson, “The Orchestration of Global Urban Climate Governance,” 708.

Chapter 6

1. Personal interview, 29 June 2017.
2. Lazarus, “Super-wicked Problems and Climate Change.”
3. Manheim also promotes a dramatically ahistorical and apolitical vision, pointing to the strategic, disciplined, and dedicated nature of “information and influence campaigns” across three centuries of battles for social change—from the eighteenth-century drive to abolish the slave trade through the Nike athletic company boycotts—by which committed actors of all stripes wield “communication and action to change the behavior of another party to their advantage.” Manheim, *Strategy in Information and Influence Campaigns*, 3.
4. We have changed the names of advocates and provide organization type instead of name. This was mainly at the request of our interlocutors, which is telling in and of itself. Stories of their workplace being monitored, infiltrated, or hacked were not uncommon. A full list of organizations at which interviews took place, decoupled from names, appears in Appendix 1.
5. Smith and Howe, *Climate Change as Social Drama*.
6. See, e.g., Botan and Hazleton (eds.), *Public Relations Theory II*; Grunig, ed., *Excellence in Public Relations and Communication Management*.
7. Grunig, “Review of Research on Environmental Public Relations,” 46.
8. Stamm, “Conservation Communications Frontiers,” 4. These concerns were equally reflected in social psychology. See, e.g., Heberlein, *Navigating Environmental Attitudes*.
9. Stamm, “Two Orientations to the Concept of Scarcity”; Stamm and Bowes, “Environmental Attitudes and Reaction”; Stamm, “Conservation Communications Frontiers.”
10. Grunig, “Review of Research on Environmental Public Relations,” 47.
11. As E. Bruce Harrison would explain in a presentation on grassroots campaigns to the Public Relations Society of America in May, 1987: “People are interested in themselves. They listen to messages which relate to themselves. They are moved to act when it seems important to themselves. Any coalition or interest group will hold together just so long as the individual members believe the group represents their self-interest. Messages on legislative issues should certainly identify with the ‘public interest,’ but they won’t score well unless each individual sees in them something for himself.” Harrison, “Grassroots Public Relations,” 4.
12. Harrison, “Grassroots Public Relations,” 49. See also Major, “Environmental Concern and Situational Communication Theory.”

13. Stamm and Grunig, "Communication Situations and Cognitive Strategies in Resolving Environmental Issues"; Grunig, "Communication Behaviors and Attitudes of Environmental Publics."
14. In the urban study, those are the four questions asked. In the rural study, the last question was tweaked to be more expansive, focusing on more than "solutions": "Do you have a great deal of knowledge or experience that would help you make judgments about these issues, some knowledge or experience, very little, or none?"
15. Grunig, "A Situational Theory of Environmental Issues, Publics, and Activists," 50.
16. Grunig, "Communication Behaviors and Attitudes of Environmental Publics," 13–14.
17. Grunig, "Communication Behaviors and Attitudes of Environmental Publics," 12.
18. Dewey, *The Public and Its Problems*, 137.
19. Grunig's curriculum vitae gives a sense of his influence in academic and professional settings. In addition to his many years of consulting work for companies and PR firms on their PR programs and strategic planning, Grunig was a longtime advisor to the US Department of Energy on their public affairs. Among other roles, he sat on the DOE's Communication and Trust Advisory Panel, established as part of the federal agency's mea culpa after radioactive contaminants were found on the grounds and in the river surrounding their Brookhaven National Laboratory. Located 60 miles east of New York City, the Long Island laboratory's nuclear reactor was active for eighteen years (1950–1968) of DOE experiments on uses of the atom. See Cotsalas, "Brookhaven Lab's \$97 Million Cleanup"; Brookhaven National Laboratory, "Institutional Plan." Over the course of his career Grunig won virtually every major award from professional public relations associations and was invited around the world to give talks on his theories and methods.
20. Grunig, "A Situational Theory of Environmental Issues, Publics, and Activists," 50–54.
21. Grunig, "A Situational Theory of Environmental Issues, Publics, and Activists," 53–54.
22. American environmental organizations are not at all alike in their orientation to business agendas and managerial techniques. Although public relations is strongly indexed to corporate power, we found in our interviews that a surprising range of environmental organizations, including those most directly opposed to business values, adopt the ideological premises of public relations, usually in the spirit of making use of the same media outlets and performative techniques to confront and redirect segmented audiences.
23. Bernstein, *Compromise of Liberal Environmentalism*.
24. Bosso, *Environment, Inc.*; Bosso and Guber, "Maintaining Presence: Environmental Advocacy and the Permanent Campaign."
25. Shellenberger and Nordhaus, "The Death of Environmentalism."
26. Mitchell, Mertig, and Dunlap, "Twenty Years of Environmental Mobilization"; Dowie, *Losing Ground*; Berry, *The New Liberalism*.
27. Brulle, Carmichael, and Jenkins argue that *New York Times* coverage of the release of the film *An Inconvenient Truth* in 2006, directed by Al Gore, boosted public perception of the urgency of climate change. See Brulle, Carmichael, and Jenkins, "Shifting Public Opinion of Climate Change." See also Boykoff, "Public Enemy No. 1?"
28. Bäckstrand and Lövbrand, "Climate Governance Beyond 2012."

29. Ganz, *Why David Sometimes Wins*.
30. See Hoggan and Ganz, “Sometimes David Wins.”
31. The discussion of “truth” in climate change discourse is far more complex than what is rendered here as an opposition between truth and legitimacy. As Chris Russill reveals, claims to truth in assertions about the reality of climate change can themselves be seen as an act of strategic communication. Russill, “Truth and Opinion in Climate Change Discourse.”
32. See Isaac William Martin, *Rich People’s Movements*, which defines radical flank as the influence of radical protest on decisions to adopt more moderate proposals along the same lines. The idea of a radical flank comes from Herbert Haines, “Black Radicalization and the Funding of Civil Rights, 1957–1970.”
33. Walker, *Grassroots for Hire*. But see Wood, “Corporate Front Groups and the Making of a Petro-Public,” for an excellent account of the complex affiliations of adherents to these groups.
34. Of course, there are long-standing reasons for the antagonistic stance of some activists toward public relations. First, as we have seen throughout this book, the practice of public relations is deeply entwined with the US history of corporate power. Second, and relatedly, public relations is dominantly understood as an institutional practice and not as a set of communicative processes. As Kristin Demetrious points out, it is therefore not surprising that activists see themselves as “victims” of the “manipulative” and “undemocratic” practice of public relations and are unable or unwilling to recognize their communicative efforts in those terms. Demetrious, “Active Voices.”
35. Dauvergne and LeBaron’s *Protest, Inc.* (and Clifford Bob’s more systematic treatment, *The Marketing of Rebellion*) presumes a “corporatization” of activism, through branding, institutionalization and fundraising. Dauvergne and LeBaron describe this process as a capitulation by activists to a privatized, consumption-based set of practices rooted in neoliberal market norms. Our research suggests that the terrain is far more complex. Our interviewees were well aware of the spirit of compromise characterizing the climate of publicity into which they entered and the implications of the choices they make.
36. To the extent that self-interest is often a prime motivation for participation in deliberative processes, “this has opened the door for all kinds of organizations to be recognized as deliberative agents . . . and for PR, as the organizational function through which deliberation is institutionally managed, to be recognized as an important influence on deliberative engagements.” Edwards, *Understanding Public Relations*, 88.
37. See, e.g., Callison, *How Climate Change Comes to Matter*; Lippert, “Corporate Carbon Footprinting as Techno-Political Practice”; Lohmann, “Marketing and Making Carbon Dumps”; Pasek, “Managing Carbon and Data Flows.”
38. Cronon, “The Trouble with Wilderness,” 21.

Chapter 7

1. Porter and Kramer, “Creating Shared Value,” 71–75; see also Porter and Kramer, “Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility.”
2. On the information deficit argument around climate change, see Bulkeley, “Common Knowledge?” On uses of mobile data for social good, see, e.g., Poom et al., “COVID-19 is Spatial.”
3. See The Future Society, “AI4SDG: Roadmap to a Global Data Commons to Achieve the Sustainable Development Goals.”
4. Yakowitz, “Tragedy of the Data Commons,” 4.
5. Lippert, “Failing the Market, Failing Deliberative Democracy”; Lippert, “Corporate Carbon Footprinting as Techno-Political Practice”; Vesty, Telegenkamp, and Roscoe, “Creating Numbers.”
6. Fortun, “Environmental Information Systems as Appropriate Technology”; Gabrys, *Program Earth. Environmental Sensing Technology and the Making of a Computational Planet*; Mah, “Environmental Justice in the Age of Big Data.”
7. Levy, “Environmental Management as Political Sustainability”; Power, “Expertise and the Construction of Relevance”; Levy and Newell, *The Business of Global Environmental Governance*.
8. Levy, “Environmental Management,” 127.
9. Collaborators in D4CA and related initiatives include other United Nations bodies such as the UN Development Operations Coordination Office; economic organizations such as the World Economic Forum; national governments; sustainability research groups such as the World Business Council for Sustainable Development; and private data companies such as mobile network operators.
10. Fortun, “Environmental Information Systems as Appropriate Technology,” 54.
11. Fortun, “From Bhopal to the Informating of Environmentalism.”
12. Kuneva, “Keynote Speech: Roundtable on Online Data Collection, Targeting and Profiling.” Emphasis added.
13. World Economic Forum, “Personal Data: The Emergence of a New Asset Class.”
14. Hajer et al., “Beyond Cockpit-ism”; World Economic Forum, “Rethinking Personal Data: A New Lens for Strengthening Trust.”
15. Couldry & Mejjias, “Data Colonialism,” 340.
16. Fourcade and Kluttz call this a “Maussian bargain,” by which “the harvesting of data about people, organizations and things and their transformation into a form of capital” is made to seem not as dispossession but as a benign process of gift-like exchange, by which all parties to the exchange stand to benefit in material and symbolic ways. Fourcade and Kluttz, “A Maussian Bargain.”
17. Couldry and Mejjias, “Data Colonialism,” 340.
18. Isin and Ruppert, “Data’s Empire: Postcolonial Data Politics.” Isin and Ruppert also draw on United Nations Global Pulse initiatives to make their case.
19. Isin and Ruppert, “Data’s Empire.” See also Scott, *Seeing Like a State*; Anderson, *Imagined Communities*.

20. Power examines the emergence of environmental accounting techniques in the UK in the mid-1990s, by which the jurisdiction of environmental concerns is enlarged to accommodate professional accounting language, practices, and expertise. By focusing on the claims to legitimacy as opposed to investigating the actual legitimacy of environmental auditing, Power allows us to apprehend the performative dimensions of the various representational strategies in which environmental auditors engage as well as the making of private-sector expertise in dealing with matters of environmental concern. Power, “Expertise and the Construction of Relevance.”
21. Lippert’s work on carbon accounting recognizes the co-constitution of such markets by a range of actors. Not only corporate firms but also organizations such as the Organization for Economic Cooperation and Development (OECD) and the World Business Council for Sustainable Development (WBCSD) are involved in the legitimization of global carbon reports and metrics. Lippert, “Corporate Carbon Footprinting as Techno-Political Practice.” See also Lohmann, “Marketing and Making Carbon Dumps”; Williams, Whiteman, and Parker, “Backstage Interorganizational Collaboration.”
22. Pasek, “Managing Carbon and Data Flows.” See also Russell, “Looking for the Horizon,” who argues that media theory and environmental science can be constituted through the same problematics.
23. Lazarus, “Super-wicked Problems and Climate Change.”
24. Faghmous and Kumar, “A Big Data Guide to Understanding Climate Change,” 16.
25. Fortun, “Environmental Information Systems as Appropriate Technology”; Lippert, “Failing the Market, Failing Deliberative Democracy,” 2; Gabrys, *Program Earth*; Aronczyk, “Environment 1.0: Infoterra and the Making of Environmental Information.”
26. Gabrys, “Practicing, Materializing and Contesting Environmental Data”; Gabrys, “The Becoming Environmental of Computation”; Mah, “Environmental Justice in the Age of Big Data.”
27. But even in the most fair-minded, participatory, and publicly accessible contexts, many of them still rely on corporate information and technology infrastructures (e.g., the Google Maps platform) for data collection and analysis. See Mah, “Environmental Justice in the Age of Big Data.”
28. Bloomberg Finance LP, “Data for Good Exchange 2018.” Emphasis in original.
29. Aakus and Bzdak, “Revisiting the Role of ‘Shared Value’ in the Business-Society Relationship”; Porter and Kramer, “Strategy and Society”; “Creating Shared Value.”
30. World Economic Forum, “Rethinking Personal Data” (2010); World Economic Forum, “Personal Data: The Emergence of a New Asset Class” (2011); UN Global Pulse, “Big Data for Development: Challenges and Opportunities” (2012); World Economic Forum, “Rethinking Personal Data: A New Lens for Strengthening Trust” (2014); UN Secretary-General Independent Expert Advisory Group, “A World that Counts: Mobilizing the Data Revolution for Sustainable Development” (2014); World Economic Forum, “Paving the Path to a Big Data Commons” (2015).
31. World Economic Forum, “Personal Data: The Emergence of a New Asset Class.”
32. UN Secretary-General Independent Expert Advisory Group, “A World that Counts.”

33. World Economic Forum, “Personal Data: The Emergence of a New Asset Class.”
34. World Economic Forum, “Rethinking Personal Data: A New Lens for Strengthening Trust,” 3; 33.
35. Fortun, “Informing Environmentalism.”
36. Wood and Aronczyk, “Publicity and Transparency.”
37. World Economic Forum, “Personal Data: The Emergence of a New Asset Class.”
38. Giovanni and Jespersen, “You Say You Want a Revolution”; Jahan, “The Data Revolution for Human Development.”
39. UN Secretary-General Independent Expert Advisory Group, “A World that Counts,” 27.
40. UN Global Pulse, “Big Data for Development.”
41. Kirkpatrick, “Data Philanthropy: Public & Private Sector Data Sharing for Global Resilience.”
42. Hajer et al., “Beyond Cockpit-ism,” 1652. It is relevant that some of the authors of this article are based at the World Business Council for Sustainable Development and the Stockholm Resilience Center, organizations which since the early 2000s have aimed to interpret climate change through the lens of risk management and, as Lippert (“Corporate Carbon Footprinting”) indicates, are part of the co-constitution of voluntary, private regimes of environmental response such as corporate carbon accounting.
43. Hajer et al., “Beyond Cockpit-ism,” 1656.
44. Hajer et al., “Beyond Cockpit-ism,” 1658.
45. Kirkpatrick, “Unpacking the Issue of Missed Use and Misuse of Data.”
46. Biruk, *Cooking Data*.
47. Crystal Biruk, among others, has noted how this is often the “default language” for conceptualizing the link between action and development research worlds. Biruk, *Cooking Data*, 168.
48. See, e.g., Biruk, *Cooking Data*; Green, “Calculating Compassion”; Mosse, *Cultivating Development*.
49. UN ECOSOC, “Partnering for Resilient and Inclusive Societies.”
50. *UN News*, “UN Makes ‘Declaration of Digital Interdependence.’”
51. UN Secretary-General, “The Age of Digital Interdependence.”
52. Rajpurohit, “Interview: Emanuel Letouzé, Data-Pop Alliance on Big Data and Human Rights.”
53. Letouzé and Vinck, “A New and Sometimes Awkward Relationship.”

Conclusion

1. For a list of transformations to US environmental and science policy under the Trump administration during its first two years in office, see *National Geographic*, “A Running List.” For 2019–2020 changes, see McKeever, “Trump’s and Biden’s Policy Promises and Actions.” For accounts of efforts by the Trump administration to suppress or

- destroy information and federal datasets pertaining to environmental protection, see Dillon et al., “Environmental Data Justice and the Trump Administration”; and Russell and Tegelberg, “Beyond the Boundaries of Science.”
2. Peterson Companies, “Waterfront Development.”
 3. Macdonald, “National Harbor a Threat to the Potomac”; and Byrne, “National Harbor: And the Environment?” The quoted passages are from Byrne.
 4. Williams, “Return from the Nadir.” For a description of the ambit of Public Interest Research Groups today, see USPIRG.org.
 5. See, e.g., Levick, “The Interview (Richard S. Levick).”
 6. Levick, “Insights in New Media and Public Relations,” keynote speech, Oil & Gas Public Relations and New Media Conference, National Harbor, Maryland, 7 May 2015. The TransCanada Corporation’s Keystone XL pipeline was a controversial pipeline project intended to carry over 800,000 barrels of crude oil per day from Canada to the US Gulf Coast. In 2015, when Levick gave this speech, the pipeline project was mired in a lengthy review process (and would be rejected by President Obama later that year, citing concerns over carbon emissions). Regulations were removed by the Trump administration, allowing construction of the pipeline to continue; but in January, 2021, newly elected US president Joe Biden revoked the Keystone XL pipeline permit on his first day in office.
 7. Holt, “Shifting Paradigms: Broadening the Discussion on O&G Development.” Speech delivered at Oil & Gas Public Relations and New Media Conference, National Harbor, Maryland, 8 May 2015. David Holt is also the founder and managing partner of HBW Resources, a public relations firm and strategic consultancy with offices throughout the United States. HBW Resources created the Consumer Energy Alliance (CEA) in 2006 to promote oil, gas, and tar sands infrastructure and development. The CEA, which maintains operations in twenty states, is housed in HBW Resources offices.
 8. One public event described was the Consumer Energy Alliance sponsorship of an annual Energy Day Festival in Houston, Texas, a “family event” designed to educate ordinary citizens about the benefits of the energy industry. Such public events harken back to the public and community relations of the Chemical Manufacturing Association starting in the 1950s (see chapter 3).
 9. In his own speech, Richard Levick made this claim as well, asking attendees, “How many people here are anti-environment?” and letting the silence answer his question.
 10. We are grateful to Tim Wood for helping us to formulate this point.
 11. Lee et al., *Democratizing Inequalities*.
 12. Pasek, “Mediating Climate, Mediating Scale.”
 13. See, e.g., Yosie and Herbst, “Using Stakeholder Processes in Environmental Decisionmaking”; and Yosie, “Emerging Strategies to Manage System-Level Risks.” A former director of the US Environmental Protection Agency’s Science Advisory Board, then vice-president of health and environment at the American Petroleum Institute, Terry Yosie joined the staff of the E. Bruce Harrison Company in 1992, becoming the PR firm’s top analyst in the strategic management of federal environmental and health policy to promote industrial benefits and mitigate the policy impacts of scientific evidence.

14. Russill, "Dewey/Lippmann Redux," 130.
15. We are influenced in some measure by the work of Bruno Latour (e.g., *An Inquiry into Modes of Existence* and "From *Realpolitik* to *Dingpolitik*"), Noortje Marres ("Issues Spark a Public into Being" and "The Issues Deserve More Credit") and their collaborators on the problem-solving potential of John Dewey and Walter Lippmann's conceptions of democracy to rethink the relationship of science and technology to society. In particular, Latour's proposal of a turn from "matters of fact" to "matters of concern" parallels to some extent the argument we are making here. Yet we want also to conserve the historical arguments made by Dewey and Lippmann, and later Hannah Arendt, in their reckoning with concepts of truth and politics in the development of a historical consciousness. See also Russill, "Dewey/Lippmann Redux," on this point; and see the essays in Arendt, *Between Past and Future*.

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