CHAPTER 6

Steering the Climate Discourse

Legacy News, Social Media, Advertising, and Public Relations

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Introduction: Steering Obstruction

In the lead-up to the international treaty on climate change known as the Paris Agreement, the Intergovernmental Panel on Climate Change (IPCC) released its fifth report, describing the causes of climate change in unequivocal terms. Anthropogenic greenhouse gas emissions (GHGs), "together with those of other anthropogenic drivers, have been detected throughout the climate system and are *extremely likely* to have been the dominant cause of the observed warming since the mid-20th century."[1] In 2017, *New York Times* opinion writer Bret Stephens challenged those who claimed the "complete certainty" of climate causes. His piece was not meant "to deny climate change of the possible severity of its consequences," he wrote. "But ordinary citizens also have a right to be skeptical of an overweening scientism." Such framing may be perceived as presenting a "balanced" opinion; it is also a way to retain skepticism as an acceptable response to the climate crisis.

Since at least 2004, the pretext of balance in media coverage of global warming has exacerbated the disparity between scientific and public understandings of climate change.[2] Research published in 2004 examining peer-reviewed climate science found that experts had reached agreement (consensus) that

Melissa Aronczyk et al., *Steering the Climate Discourse*. In: *Climate Obstruction*. Edited by: J. Timmons Roberts, Carlos R. S. Milani, Jennifer Jacquet, and Christian Downie, Oxford University Press. DOI: 10.1093/oso/9780197787144.003.0006

humans contribute to climate change.[3] Another 2004 study found that 53% of news articles published between 1988 and 2002 in major American newspapers told a so-called "balanced" story whereby some scientists found that humans contributed to climate change while others continued to argue that humans' role was in doubt.[4] This study—and many others since then—offer explanations for the outsized gap between scientific knowledge and public understanding: the inappropriate deployment of the journalistic norm of balanced reporting combined with the outsized influence of industry groups who use anti-climate action think tanks and other strategies to shape public stories and those quoted in them.[5] While this disparity has diminished (but not disappeared) in these sources since then,[6] it exposes one way in which casting doubt about anthropogenic climate change is a form of climate obstruction.[7]

To be clear: the ongoing disparity between scientific and public understandings of climate change is not a matter of happenstance. Oil and gas producers and their collaborators actively work with legacy news (television, newspapers, radio) as well as social media platforms and public relations and advertising firms to promote disinformation that stymies climate policy. The deliberate production and promotion of climate disinformation and climate obstruction appears via news coverage, journalistic practices, public relations (PR) and strategic influence campaigns, and social media posts as well as in other modes of communication (e.g., blogs, instant messaging) in the public arena. Financial motivations are part of the problem as a result of the corporate control of mainstream media and the importance of advertising revenue to media companies' bottom line.[8] This chapter synthesizes research that explains how climate disinformation circulates through media and contributes to climate obstruction that benefits carbon-based industries and status-quo actors at the cost of society and the environment (see Chapters 5 and 7). It focuses on the discourses and structures that shape the terrain of these practices and then points to areas where this disinformation and obstruction can effectively be countered.

Contrarians in the Mediated Public Sphere

A growing—at times cacophonous—chorus of climate-contrarian voices has gained prominence through multiple media platforms and modes of communication. Contrarian views are promoted by a network of obstructionist organizations and actors with aligned ideological and cultural inclinations (see Chapter 1).[9] These movements often gain attention to their outlier views through media channels.[10] At least four arguments for climate delay can be observed in media communications: (1) shifting the responsibility for climate action; (2) arguing that mitigating climate change is impossible; (3) advancing nontransformative solutions; and (4) emphasizing the downsides of any climate solution.[11] Captured in media portrayals, advertising

and PR campaigns, these discourse types demonstrate the growing tendency among disinformation actors to move from overt denial of climate change and its anthropogenic causes to more subtle tactics of delegitimation of climate solutions. Choices about how to frame communications through media, advertising, and PR—shaping perceptions of responsibility and solutions, for example—can channel public attention and action in important ways. In many cases, this agenda setting can foster preferences for system preservation over structural transformation.[12] Mass media enable the formation of political structures and norms that condition public responses to climate change. Ultimately, such obstruction efforts seek to advance special-interest goals and objectives to maintain the status quo or to distract from, delay, and/or deny science—effectively obstructing climate engagement and action.

How Disinformation Spreads in the Mediated Public Sphere

The deliberate circulation of climate disinformation is partly enabled by the unprecedented economic and social power of the global media system. Power structures were further consolidated during the COVID-19 pandemic when many independent and local newsrooms were shuttered as digital media expanded and consolidated.[13] Boosted by new digital technologies and legacy/social media, disinformation campaigns can now operate at greater scale and expanded scope, influencing human experience with increasing control and precision.[14] Technology companies and their platforms allow powerful actors to shape cognition and actions in ways that lack accountability. The use of artificial intelligence (AI) and communications technologies in political campaigns has had profoundly negative consequences for global climate mitigation, even when climate policy obstruction was not an explicit or direct aim.[15]

New media technologies can boost longstanding patterns of control and socioeconomic inequality that are harmful for the environment. Social disparities, a lack of democratic practices, and environmental destruction tend to reinforce one another.[16] To address the problem of disinformation and how it shapes climate and environmental outcomes, it is vital to broaden the scope of what we commonly think of as climate and environmental policy. Collective goals in the name of the public interest, such as democracy, environmental protection, and socioeconomic equity, are threatened by the concentration of ownership and corporate control of communications and digital technologies and how information then becomes subject to financial and political incentives. This concentration is enabled by current policies in the United States and many other countries that are determined by the wealthiest and most powerful players.[17] The concentration of media control in relatively few news outlets and internet companies is a global phenomenon—though concentration can

look different depending on ownership types and styles of concentration.[18] These conditions have the potential to produce sociodigital worlds that not only intentionally spread disinformation but also foster values and worldviews that maintain inequality as well as public disempowerment and compliance, thwarting the emancipatory potential of mass communications and digital technologies.[19]

With this backdrop in mind, this chapter explores the political-economic conditions and networks of actors engaged in producing online modes of climate information and disinformation in order to better delineate the scale and scope of the problem and identify possible pathways forward. The authors trace how journalists and other media makers are hampered in their efforts to elucidate climate obstruction and examine how climate obstruction finds visibility through media and PR endeavors, effectively amplifying as opposed to investigating and holding to account contrarian and related outlier perspectives in the public arena. The chapter also notes how journalists and other media actors are responding to these challenges.

OVERVIEW OF ACTORS, SECTORS, AND ORGANIZATIONS

Across national contexts, commitments to economic growth and carbon-intensive industry, along with deeply entrenched technological optimism, have influenced discussions of climate change in the public sphere. A recent study uncovers relationships among conspiratorial beliefs, conservatism, and climate skepticism across nations, concluding, "The greater the vested interests in resisting change, the more incentive there is to engage—and believe—in ideologically driven campaigns of deliberate disinformation about the reality of anthropogenic climate change."[20] A related study of climate contrarianism (here interchangeable with "climate skepticism" or "climate denialism") across twenty-five countries found that "political cultures have emerged that encourage citizens to appraise climate science through the lens of their conservative ideologies."[21] In the United States in particular, the relationship between conservative (or political) ideology and climate contrarianism is "unusually strong and consistent."[22] The authors also observed that nations with the strongest relationships between right-of-center ideology and climate contrarianism "tend to be those whose economies are relatively highly reliant on fossil fuel industries."[23] This finding is consistent with research in Canada, Brazil, and Australia.[24]

Climate obstruction is conducted by traditional/legacy media as well as online.[25] Online networks mirror offline climate obstruction networks and patterns of behavior, connecting disinformation efforts by networks of fossil fuel-supported think tanks and foundations, lobby and PR groups, multinational corporations, "influencers" from scientific and political fields, and

media organizations. While most of these networks originated in the United States, in recent years they have expanded to several other countries and have included transnational coordination across China and countries in Latin America, Europe, and Southeast Asia.[26]

Contrarians and other climate obstructionists who gain attention in the United States, China, Germany, Brazil, and in other country contexts have been profiled demographically.[27] Paradoxically, heterogeneous members of climate obstruction networks have also been associated with movements to limit economic growth by evoking climate change as a justification for other issues such as preventing immigration.[28] Research in the Norwegian context found associations between climate skepticism and right-wing nationalism, noting, "Climate change denial is but one facet of a more general complex of resistance to various societal issues such as economic growth, environmental conservation, globalization, governance and relationships to other social groups" (see Chapter 5).[29]

The relationship between climate obstruction organizations and climate contrarianism has been studied extensively in the US context, in part because of the influence of carbon-based industry at the interface of science, policy, and society (see Chapter 1).[30] Emerging analyses of climate coverage in lower- and middle-income countries suggest that climate-skeptic views are granted much less coverage and credibility in these locales. Among the larger and most studied nations, China, India, and Brazil make few references to climate skepticism, for example.[31] In some cases, the focus may be less on fossil fuel emissions and more on carbon pollution from agriculture and other land-use practices. Research on climate coverage in Brazil found that beef production, which has been linked to more than half of Brazil's emissions, was a nearly taboo topic in Brazilian newspapers. Researchers have also looked across Brazil, China, France, India, the United Kingdom, and United States and found that news coverage of skepticism is largely limited to the latter two countries.[32] Elsewhere, disinformation in the Global South has been found to be an ongoing problem (see Chapter 8).[33]

In the Global North, climate obstruction in both public and political spheres is networked across environmentally damaging industries and polluting sectors. With this structure comes asymmetrical power and influence in national politics and policymaking. Advertising campaigns as well as PR efforts have long played a role as the glue joining carbon-based industries, media organizations, and economic sectors, using coalitions, campaigns, and other coordinated processes to question the efficacy of science, news, and political institutions engaging climate-related issues.[34] Fossil fuel PR is embedded in a wide ecosystem of influence that includes trade associations, industry and science advisory councils, think tanks and research institutes, NGOs and foundations, chambers of commerce, and organizational boards.[35] PR firms play several key roles in this network. Among them, there is (1) cross-industrial

strategic management, where PR agents engage in intelligence-gathering in the environmental community, at government agencies and in other organizations that influence public policy on environment, climate, and energy issues; and (2) industry-friendly research, public-opinion polling, and data collection to promote clients' viewpoints in the media, in addition to producing scientific, legal, or technical expert material for media circulation. One way various agencies, think tanks, boards and associations are tightly bound with PR firms is through a revolving door strategy (e.g., former government agency administrators are hired by PR firms, former PR firm employees are hired as trade association administrators, and so on).

Media communications aiming to advance climate denial and opposition often amplify existing patterns of polarization.[36] A study of polarizing tweets on X (Twitter) during United Nations climate (COP) summits identified five styles of climate contrarianism, from outright denial ("@COP26 You have been lying to the public and mocking them for decades with your climate scam") to (untrue) rejection of climate solutions ("China is not going to COP26. So what's the point?").[37] In 2022, the Third Working Group of the United Nations Intergovernmental Panel on Climate Change Sixth Assessment Report pointed to "public discourses of media and organized countermovements" as fuel for polarization, with damaging potential for climate action.[38] The technical summary noted that "accurate transference of the climate sciences has been undermined significantly by climate change countermovements, in both legacy and new/social media environments through misinformation."[39] It also noted that "on occasion, the propagation of scientifically misleading information by organised countermovements has fuelled polarisation, with negative implications for climate policy."[40] Further linking obstruction activities and polarisation, the report mentions "political polarisation leading to erosion of environmental governance" (see Chapter 10).[41]

Digital platforms have also been identified as sources of climate disinformation. Meta (Facebook), for instance, has overridden the determinations of its independent fact-checkers for climate science, allowed fossil fuel companies to purchase misleading ads, and limited the transparency and usefulness of its data sharing tool, Crowdtangle, relied upon by journalists and academics to analyze engagement with content on the platform.[42] There are claims that Meta's own Climate Science Center is underequipped to serve its purpose. One report estimated that Google alone received $23.7 million between 2020 and 2022 from the five largest oil companies in the world (ExxonMobil, British Petroleum [BP], Chevron, Shell, and Aramco) to promote their advertising.[43] The nonprofit coalition Climate Action against Disinformation (CAAD) has found that the major tech platforms (TikTok, Meta, YouTube, and X) have become "complicit" actors in the spread of climate denial, since "disinformation is now a guaranteed byproduct, if not a central part, of social media companies' business models."[44] Among several findings in the study,

X ranked last among platforms for its absence of policies on climate disinformation, lack of public transparency mechanisms, and failures of effective policy enforcement.[45]

POLITICAL AND ECONOMIC AIMS, ALLIANCES, AND STRATEGIES

Climate disinformation disseminated through media content, platforms, and formats such as legacy news coverage, social media posts and discussions, advertising campaigns, and corporate promotional strategies often mask the original source and coordinated efforts of these actors.[46]

Macro-Scale Influences

At the *macro scale*, questions of representation in, differential access to, and regulation and ownership configurations of media systems are crucial factors in climate policy obstructionism in and by both alternative and mainstream news media. These are multifaceted processes through which dominant assumptions, beliefs, values, and election outcomes are shaped, often facilitated by public policies that allow private concentration of ownership of media and associated technologies with limited public oversight and participation.[47] Efforts to shape public opinion via media systems, old and new, influence how publics perceive polluting companies and activities. Corporate-funded media tend to privilege certain discourses and make highly unequal access to (and pollution of) environmental resources seem natural and inevitable, even where they are irrational and detrimental to the public interest.[48] One particularly problematic phenomenon is the increased funding of social media influencers by fossil fuel companies to spread a positive image of their sector with the help of PR firms.[49] Research by the international research team *DeSmog* found that more than one hundred influencers have been hired by public relations firms such as Edelman and ad agencies including EssenceMediaCom (owned by WPP, the largest marketing communications services group in the world) to promote oil and gas clients Shell and BP internationally since 2017, from the United States to Malaysia and the South Pole.[50]

Meso-Scale Factors

At the *meso scale*, research has considered how multiple organizations have influenced environmental and climate politics over time. As other chapters in this volume attest, the political power of intermediaries such as trade associations, foundations, think tanks, and universities and research institutes

contribute to the maintenance of the corporate political power of fossil fuel producers. These organizations, operating worldwide, have helped to harness the collective power of business and free-enterprise ideology from at least 1970 through the present day. Such power networks wield influence through both discursive and financial means. Many major national and global media companies depend on money from advertising, including from fossil fuel companies.[51] Media ownership is no longer in the hands of just a few wealthy moguls, as was the case some decades ago. The need for capital has pushed media companies to seek multiple sources of investment, leading to more differentiated ownership (still largely within the confines of private ownership groups, distinct from community- or state-owned media).[52] Still, the general reliance by media companies on an advertiser-based business model inhibit more hard-hitting and investigative reporting required to uncover the root causes and impacts of climate change as well as to illuminate the different methods and means of climate obstructionism.[53] To give but one devastating example, climate reporters Amy Westervelt and Matthew Green investigated how seven major news organizations—Bloomberg, *The Economist*, the *Financial Times*, the *New York Times*, *Politico*, Reuters, and the *Washington Post*—featured content and hosted events favorable to fossil fuel companies. In some cases, the media companies even used their internal brand studios to create the content in-house for the fossil fuel corporations.[54]

Micro-Scale Aspects

At the *micro scale*, discourse and behaviors at the individual level shape these spaces of interaction.[55] Most forms of media have an original author as well as an editor who oversees content. These individuals may be influenced by incentives within the media organization or many other factors. Harassment of scientists, journalists, researchers, and climate communicators is also a significant problem.[56] In addition to the suppression or even criminalization of NGO and activist actions, academic researchers and others investigating climate obstruction are experiencing online and offline threats to the continuation of their work. *The Guardian*, a British newspaper, reported in 2023 on "striking similarities in the way governments from Canada and the US to Guatemala and Chile, from India and Tanzania to the UK, Europe and Australia, are cracking down on activists trying to protect the planet."[57] Often, harassment attempts to leverage commonly shared democratic values such as freedom of speech, open debate, and due process to legitimate harmful statements or delay regulatory actions. Politicians and influencers associated with the circulation of disinformation attempt to frame as censorship initiatives such as fact-checking, labeling of content, and enforcement of platform policies on content moderation. Contrarian claims feed journalistic pressure

to supply attention-getting, dramatic personal conflicts. Such conflicts draw attention toward decontextualized individual claims-making and away from critical institutional and societal challenges to carbon consumption that call collective behaviors, actions, and decisions to account.

OBSTRUCTIVE DISCOURSES, NARRATIVES, AND THEIR COMMUNICATION

Studies of journalism and climate obstruction tend to focus on how climate science is covered and how this coverage may confuse the impacts and causes of the climate crisis. Journalism scholars illuminate how climate contrarians have long been featured alongside climate scientists in mainstream national news media, such as the BBC in the United Kingdom and CNN in the United States, in the name of balance and fairness.[58] News media, particularly business presses, continue to legitimize climate denial by allowing fossil fuel companies access to mainstream platforms.[59]

Media and Journalism Influences

Climate journalism is prone to an events-based model of reporting that decontextualizes the climate crisis. Extreme heat, floods, and storms tend to be reported as close-ended events as opposed to a part of an unfolding and long-term crisis.[60] This representation prevents a fuller understanding of climate change by cutting out historical contexts, causes, and long-term impacts.[61] Moreover, climate change is not always mentioned in stories of intense storms, violent floods, and severe heat. In some contexts, this may serve to limit recognition of the immediate as well as long-term risks of the fast and slow violences of climate change.[62]

Reporting on the climate crisis tends to apply apocalyptic and/or fatalist framings that prevent deeper considerations of an array of possible responses to climate change proposed by different stakeholders and community members. Like events-based reporting, apocalyptic framing may obscure the root causes of the crisis and obstruct more comprehensive action.[63] This type of media reporting on climate change has the potential to effectively conjure images of "sacrifice zones" and "sacrificed people," often portrayed as poor and/or from the Global South.[64] Historically marginalized people are rarely featured in mainstream news coverage of climate change in the Global North and, when they do appear, they are often represented as victims or cast in a negative light, as was the case with anti-fracking activists in the United Kingdom.[65]

Partisanship plays a role in climate denial by linking denial with conservative identities. For instance, climate denial and opposition are often

propagated by the same social media accounts that spread anti-vaccine sentiment, denial of genocides, or other conspiracy theories and foment disapproval of so-called social and climate justice warriors. Climate denial was supported by the MAGA movement and the closely aligned QAnon movement.[66]

Shaping Ambition

One variety of climate obstruction promotes consensus and compromise. Indeed, some of the most effective undermining of environmental science has come from businesses claiming to work alongside scientists or public policymakers to promote the public interest. PR specialists in particular are trained in how to reach consensus and compromise.[67] Their goal is to influence people by aligning their clients' messages to public values and beliefs in order to create legitimacy for the organization and trust in the message. PR consultants will create public–private partnerships or sponsorships between their clients and environmental organizations or develop benchmarking systems, accounting systems, or certification programs for companies, as indicators of their commitment to environmental protection. One such system, the GHG Protocol, described as a tool to help countries and cities track their climate goals, is conceived, built, and maintained by an alliance of high-carbon industrial multinational organizations, nongovernmental industry-friendly organizations such as the World Business Council on Sustainable Development, and "green" PR experts. Industry also uses the GHG Protocol to communicate that it is self-regulating and sustainable, which helps to ensure that governments are less likely to regulate them.

Examples like the GHG Protocol are important because they force us to move away from conventional definitions that try to classify specific statements or frames as misinformation or disinformation. Portraying themselves as climate-friendly solutions, such efforts weaken the impact of scientific claims that call for a rapid reduction in the causes of climate change; and they reduce trust in the policymaking process, which is made to appear overly stringent, too complicated or economically infeasible (see Chapter 2). The result is weak regulation, if any.

EFFORTS TO EXPOSE/PUSH BACK ON CLIMATE OBSTRUCTION IN THE MEDIA

Researchers have developed typologies and other cataloguing systems for disinformation that not only promote greater awareness of disinformation tactics but also generate disinformation literacy among various publics.[68] A well-known strategy to address climate obstruction in the media is to

monitor, document, and report on it, often through exposure of misleading narratives, malign actors, or bad behavior. Climate disinformation has been tracked at significant levels by the network analysis firm Graphika and by the environmental nonprofit organization Friends of the Earth.[69] Scholars across many fields and several media observatories have integrated climate into their operations, including the European Digital Media Observatory. This work informs strategies to "detect and correct" or to "name and shame" and have aided fact-checking by journalists, litigation against corporate actors, labeling of misleading content on platforms, and the identification of coordinated and inauthentic behavior online, and has at times informed governmental deliberations and hearings.[70]

Increasingly, computational models are being used to classify and categorize climate contrarian topics and themes. Early work in this area relied on topic-modeling approaches to examine contrarian discourse in large corpora of texts and network analyses of key elements of the denial countermovement or media coverage of important events.[71] More recently, techniques have been adopted to measure specific frames, claims, and narratives in large datasets of online media.[72] Research that tracked the dynamics of key themes in a sample of key North American conservative think tanks and blogs found that while claims that "outright deny the existence and severity of anthropogenic climate change have remained stable or have declined in relative terms in recent years," claims that offer pseudo-scientific explanations or other alternative explanations for scientific findings, are prominent.[73] Others have demonstrated the link between conservative foundation funding and contrarian discourse.[74] One of the most important benefits of this research is its longitudinal approach. Researchers have developed an extensive taxonomy of specific contrarian claims, as well as an approach for classifying these claims, then applied their computational model to provide a detailed history of climate disinformation over a roughly two-decade period.[75] This research points to the need for specific public education efforts targeted less at overcoming strict denialism than at recognizing false solutions and other industry-sponsored compromise positions.

Moving beyond monitoring climate disinformation, there are important efforts to respond to, or debunk, disinformation on the ground. Media and information literacy—generally understood as the ability to access, analyze, and critically evaluate media messages and their sources[76]—can prevent the susceptibility of individuals to disinformation and fake news.[77] In practice, this means raising awareness of the importance of fact-checking climate news stories, critically evaluating the sources of stories and one's "media diet," and providing resources to check facts and identify climate disinformation.[78] Producers and consumers of news now have valuable resources at their disposal to help check climate facts, from general websites such as Full Fact or PolitiFact to specialist fact-checking organizations such as Climate Feedback. Individuals

can also draw on websites such as Skeptical Science to learn about specific climate myths and best practices in the academic literature for debunking and "prebunking" ("inoculating against") climate disinformation. "Prebunking" means preemptively correcting disinformation by pointing out and refuting disinformation before it is disseminated (see Chapter 7). Organizations are working to put insights from media literacy and debunking into practice. On the other hand, emergent forms of AI ratchet up the production of climate disinformation and related efforts to weaken environmental protection. Researchers are anticipating the use of "deep fakes," powerful AI tools that can create fake video scenes or impersonate trusted authorities such as particular politicians and scientists.[79] Balancing the potential of these technologies to serve public interests as well as controlling the dangers they pose depends on immediate measures to wisely and effectively govern their features and use.[80]

Accountability

Accountability is another important tool to address climate denial and delay in both legacy media (newspapers, television, radio) and social media. Legacy media organizations include influential outlets such as the *New York Times*, Fox News, and BBC. Social media platforms such as Meta, X, TikTok, and YouTube help the spread of disinformation online (including AI-generated disinformation) and holding these platforms accountable is a key mechanism for reducing online exposure.[81] A broad coalition of corporations, media companies, and civil society groups are actively calling on the United Nations Framework Convention on Climate Change and CEOs of major social media platforms to adopt a universal definition of climate disinformation and recognize the threat that disinformation on social media plays in derailing climate negotiations (see Chapters 10 and 13).[82] While some progress has been made (e.g., TikTok adopted a program to develop educational content to combat climate misinformation in 2023[83]), many platforms continue to fall short on adopting policies to effectively counter disinformation.[84] Maintaining pressure on social media platforms to strengthen and enforce their policies can help to remove climate disinformation.[85] Importantly, further critical attention must be paid to how people, corporations, and other institutions use and govern these technologies in ways that may also exacerbate the negative effects of human-induced climate change.[86]

Public Awareness

Another strategy for addressing obstruction involves public awareness efforts. This takes many forms, including shaming brands and platforms running

digital ads that monetize obstructionist content; calling out blatant examples of greenwashing by fossil fuel companies on social media through "greentrolling"; and identifying specific organizations and important actors within those organizations (see Chapter 7).[87]

Climate shaming has perhaps contributed to the surge of greenwashing as obstructionist actors promote their alignment and support of climate action policies without corresponding shifts in behavior.[88] Researchers have found pervasive evidence of greenwashing by technology companies such as Apple, Google, and Amazon, which propose decarbonized supply chains, "restorative" carbon removal funds, or the development of "carbon-free energy" (see Chapter 2).[89] Market and securities regulators have undertaken studies, organized public comments, and moved to update their guidance, rules, tools, and enforcement actions to deal with the situation, including requirements for mandatory and standardized forms of public disclosure around emissions and net-zero claims. These are often hotly contested. For instance, the Securities and Exchange Commission (SEC) proposal to require Scope 3 carbon emissions disclosures from industry has generated extensive pushback and amplified anti-ESG communication from businesses as a climate obstruction strategy.[90]

Investigations

While corporate shaming is often intended to bring actors into alignment with norms for acceptable climate action, it contributes to wider investigative efforts to improve accountability in the public sphere. Such efforts also serve to expose and delegitimate obstruction.[91] *ExxonMobil* claims that they communicated openly about climate change, but the research suggests otherwise.[92] Other researchers identified a German-based think tank, *EIKE*, and its spokesperson as part of obstructionist efforts by think tanks.[93]

As one broad review of climate litigation efforts surmises, the success of legal challenges requires a shift in widely held societal perceptions regarding the causes of climate harms and role of law in addressing them, or what they call a "superstructure narrative" (see Chapters 7 and 12).[94] As a result, research into climate misrepresentations and obstruction is finding its way into complaints and publicity strategies, and some research explicitly links industry communication to strategies for undermining litigation.[95] These efforts have included hearings and complaints that seek to hold PR and strategic consultancies accountable. In addition, systemic media misrepresentations around climate risk are cited in the legal complaint brought by municipalities in Puerto Rico against several carbon majors.[96] The US-based Climate Investigations Center maintains a list of ongoing climate lawsuits.[97]

Rapid Attribution

Rapid attribution of misleading content and corrective measures to stem disinformation through coordinated research efforts are important to addressing obstruction.[98] This process may lead to diminished trust in transgressive sources as well as lower consumption and belief in their news products. There are daily advisories, weekly and monthly digests, and explainers and reports of climate disinformation, including descriptions of the most frequent narratives, actors, and organizations available online. CAAD has developed backgrounders and synthesized research into guidance on preparing for obstructionist strategies including typologies of common claims, strategies and actors; an archive of profiles of recurrent actors is maintained by DeSmog blog.[99] CAAD also developed an advanced rapid response capability to monitor the information environment for the COP summit for disinformation threats in recent years, issuing daily advisories throughout the meeting to assist journalists in covering stories. Amy Westervelt's Drilled podcast provides an archive of information about climate disinformation.

One of the more effective techniques for addressing climate obstruction in advertising and PR has been to spotlight companies that advertise on websites promoting denial or obstruction and pressure them to stop. Action campaigns by organizations such as Clean Creatives, Check My Ads, and Sleeping Giants have been especially effective in challenging companies to remove ads from disreputable sites and news organizations, including some organizations that circulate climate disinformation, and reports that call out platforms like Meta and Google have generally resulted in action by platforms.

INFORMATION GAPS AND RESEARCH PRIORITIES

Efforts to expose and push back on climate obstruction in the media are underway in many countries around the world.[100] Early efforts by investigative journalists to uncover the ways in which obstructionists use the media to undermine climate science and solutions have evolved into coordinated action to fight the spread of climate disinformation in both legacy and social media. A diverse coalition of journalists, civil society groups, activists, and academic researchers has developed resources for monitoring and exposing deliberate climate disinformation, from online news outlets that specialize in uncovering climate obstruction to open-source databases of the individuals, organizations, corporations, and public relations firms that are fueling climate obstruction in the media and lobbying elected officials (see Chapter 13).[101]

While the obstructionist playbook is well known in terms of its goals, key actors, usual frames, common rhetorical strategies, and funding and

distribution networks, there is still low knowledge in several domains. For instance, we lack an understanding of choices made regarding communication platforms used to obstruct climate action in the public sphere. Additional considerations include:

- the scope of PR and strategic consultancy involvement in these networks;[102]
- the cross-platform circulation of obstructionist content including the role of influencers;
- user engagement with such content; and
- the advertising technology systems that monetize this content.

Further research will also need to closely examine the use of generative AI and how to curtail its use for disinformation, including and beyond the problem of climate change.

Additionally, there is a need for research into public and audience engagement with obstructionist content. At present, emphasis is placed on the identification and labeling of deceptive content and its cognitive-behavioral implications. This approach has shaped efforts to prebunk, debunk, and otherwise help individuals avoid some of the logical fallacies or persuasive appeals of disinformation. These tools are valuable but applied most easily to instances of science denial in media education and classroom settings. Other aspects of the media ecosystem are not as easily parsed into true or false statements, including strategies of policy delay, which are often presented as opinions, and image-based or highly emotive communication that limits the effectiveness of logical counterclaims. Importantly, there remains a significant gap in research looking at how climate journalists and activists working in the Global South create different media narratives that may contest these exclusionary ones circulated in the Global North (see Chapter 8).[103] There is also concern that artificial intelligence (AI) tools will facilitate the translation and spread of deliberate disinformation into other languages given the ease, rapidity, and low cost of generating content with these tools.

As our understanding improves about how climate obstruction networks engage in destructive strategies of disinformation in the areas of social media, PR, advertising, and legacy news, more work is needed. Ongoing research must push beyond the detection of highly coordinated or inauthentic activity (which is valuable) to a broader understanding of how climate obstruction can be amplified in more informal and everyday ways through accidental recirculation of anti-climate rhetoric, infiltration of community groups, or social media "activists" sowing discord, complicating the usual way that obstructionist communication is identified, labeled, and delegitimated online.[104]

Data-driven approaches to monitor obstruction, particularly in social media, often draw on key findings from academic research.[105] For example, leaked documents have suggested that obstruction tactics and networks are

extensive and have played decisive roles in electoral success of environmental policy-hostile far-right candidates in countries around the world, including the United States, United Kingdom, and Brazil (see Chapter 5).[106] In short, climate researchers as well as practitioners now have a sophisticated suite of tools to monitor and expose climate disinformation in social and legacy media, but this does not preclude the necessity for more systemic, political-economic change.

CONCLUSION

There are many ongoing efforts to improve media representations of climate change, including investigative studies into the communication strategies of carbon-polluting industries and their enablers, solutions-based journalism that highlight routes toward a "just" green energy transition, and pro-climate advertising and PR campaigns. By extension, some scholars are emphasizing flashpoint events or moments of strategic visibility that can hold outsized importance in processes of social change. Arguably, this has been the approach of obstructionists in targeting key people and moments, especially IPCC reporting or moments of crisis.

Reflecting a broader imbalance in studies of global environmental politics, the great majority of analyses of news coverage of climate change have focused on the largest historical polluting countries in the Global North, in particular the United States and other high-income Anglophone countries.[107] The news media's role in shaping the climate policy agenda in developing countries is thus less studied and understood.[108]

Going forward, climate change media discourses—across legacy and social platforms—must be analyzed in a global context, including the Global South, with attention to particularities of national and regional politics and interests.

As a note of caution, singling out disinformation as well as climate obstruction through media, advertising and PR can run the risk of overlooking shortcomings of institutional structures as well as broader challenges of information, literacy, education, and communication that also deserve careful consideration. As we hurtle forward in a dynamic and rapidly changing world, analyses of media portrayals must continue to adopt a broad scope that includes the political economy, cultural and social systems, and dynamics of power, fostering critical analyses of ownership and control of current media systems and of the increasingly integral and powerful AI technologies.[109]

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