



# The role of public relations firms in climate change politics

Robert J. Brulle<sup>1</sup> · Carter Werthman<sup>1</sup>

Received: 12 February 2021 / Accepted: 11 October 2021  
© The Author(s), under exclusive licence to Springer Nature B.V. 2021

## Abstract

Climate change policy has long been subject to influence by a wide variety of organizations. Despite their importance, the key role of public relations (PR) firms has long been overlooked in the climate political space. This paper provides an exploratory overview of the extent and nature of involvement of PR firms in climate political action by organizations in five sectors: Coal/Steel/Rail, Oil & Gas, Utilities, Renewable Energy, and the Environmental Movement. The analysis shows that the engagement of public relations firms by organizations in all of these sectors is widespread. In absolute terms, the Utility and Gas & Oil sectors engage the most PR firms, and the Environmental Movement engages the fewest. Organizations in the Utilities Sector show a statistically significant higher use of PR firms than the other sectors. Within each sector, engagement of PR firms is concentrated in a few firms, and the major oil companies and electrical-supply manufactures are the heaviest employers of such firms. PR firms generally specialize in representing specific sectors, and a few larger PR firms are widely engaged in climate and energy political activity. PR firms developed campaigns that frequently relied on third-party groups to engage with the public, criticize opponents, and serve as the face of an advertising campaign. Our analysis shows that PR firms are a key organizational actor in climate politics.

**Keywords** Public relations firms · Climate change · Politics

“Switch off for an hour at home,” implores the World Wildlife Fund’s (WWF) Earth Hour campaign. Every March since 2007, WWF has conducted a global effort to convince individuals to turn off their lights for 1 h on 1 day of the year. Developed and run by the advertising agency Leo Burnett Sidney (Sison 2013), the Earth Hour campaign aims to convey a symbolic message of collective action to protect the natural environment, which WWF claims is “driving major legislative changes” and can “spark global conversations on protecting nature.”<sup>1</sup> Besides “Earth Hour,” other phrases commonly used in climate discourse

<sup>1</sup> <https://www.earthhour.org/our-mission>.

✉ Robert J. Brulle  
robert\_brulle@brown.edu  
Carter Werthman  
carter\_werthman@brown.edu

<sup>1</sup> Institute at Brown for Environment & Society, Brown University, Providence, RI 02912, USA

originated with and promulgated by public relations (PR) firms include the phrases “clean coal,” “renewable natural gas,” “coal country,” and “carbon footprint.”<sup>2</sup> The efforts of PR firms have effectively instantiated these concepts into the taken-for-granted discourse regarding climate change, and subsequently shaped the public debate about this issue.

There has been extensive discussion of the influence of corporations (ExxonMobil, Koch Enterprises), conservative think tanks (Heartland Institute, the Competitive Enterprise Institute), and nongovernmental organizations (Greenpeace, the Sierra Club) on climate policy. However, in addition to these organizations, PR agencies are a critical, less examined organizational influence on climate policy (Nesbit 2016: 15, Pooley 2010: 308, Schneider et al. 2016, Leonard 2019: 449). As noted by Stauber and Rampton (1995: 16), the work of PR firms requires that they “remain invisible.” Accordingly, PR firms and the organizations that engage their services have endeavored to maintain a low profile regarding their role in climate communications efforts.

In this paper, we attempt to shed light on the role and extent of PR firms engaged with the issue of climate change. PR firms such as Edelman, Glover Part, Cerrell, and Ogilvy are major actors in the climate issue arena on par with conservative think tanks or environmental groups. Yet they remain unexamined, and not held to account for their activities. Our research objective is to conduct an exploratory empirical analysis of the nature and extent of the organizational engagement of PR firms in climate change politics. We start with a review of the literature regarding the role of public relations firms in political advocacy and climate change. We then conduct an analysis of the use of PR firms by key organizations involved in climate change political activity at the national level. We examine the extent of use of PR firms, which PR firms are most frequently used, and the activities in which leading PR firms engage. Drawing on multiple datasets, we conduct a descriptive review of the engagement of key PR firms over the period 1988 to 2020. We conclude by discussing how analysis of public relations firms’ professional advocacy efforts can expand our understanding of political activities related to climate change.

## 1 Public relations and the public sphere

As the public sphere has developed in the USA, the role of public relations evolved and has now become a critical component of political action. Thus, the role of PR in social and political action needs to be viewed through a sociological and historical lens (L’Etang 2016: 28–29). The public sphere is the social space in which organizations and individuals based in civil society and the market engage in debates to identify problems, develop possible solutions, and strive to generate pressure on government bodies that directs attention to and addresses their particular political issues (Habermas 1962). Dominance in the public sphere allows actors to shape the dominant understanding and definition of a public issue and steer government actions in their desired direction (Habermas 1996: 359–360; Habermas 1998: 248–249).

Over the last century, the public sphere has become increasingly dominated by organizational actors. As the state expanded into the market to provide a social safety net and economic stability, it took on the responsibility of economic management and the distribution of wealth. Since economic outcomes are tied to state policy, private interests were incentivized to try to shape that policy. Thus, market organizations become entwined in

<sup>2</sup> See the attached [Supplemental Material](#).

state operations. Additionally, government agencies become political actors in their own right, advancing their own policy agendas (Laumann and Knoke 1987). This process has resulted in significant inequality regarding access to the public sphere. The concentration of economic wealth in the USA enables well-resourced organizations to become dominant advocates of specific policy positions. Instead of a forum for open debate among equals over the constitutive elements of the common good, the public sphere becomes increasingly dominated by powerful organized groups (Magnan 2006, pp. 31–32). Thus, in this “organizational public sphere,” organizations play a critical role in structuring the political process.

In this situation, a distinct advantage is maintained by organizations with sufficient economic, political, and/or organizational capacity to generate publicity campaigns on behalf of their positions. As media outlets have proliferated, the bases of a common public opinion have fragmented. As Greenberg et al. (2011: 69) note: “It can no longer be assumed that there is any unity of reason acting as the point of departure and destination for public discourse. Public discourse is fragmented as different, incommensurable forms of interest come into competitive play.” Organizations thus have powerful incentives to engage in activities to set the terms of the debate to favor their preferred policy outcomes.

The origins of political PR can be traced to the work of the press agent Ivy Lee for John D. Rockefeller and Standard Oil (Cutlip 1994; Miller and Dinan 2008) and the further efforts of Edward Bernays to utilize PR to burnish the image of corporations (Lepore 2012; Walker 2014: 53–55, Potter 1990). The development of the specialized industry of environmental PR would emerge in the 1970s, 10 years after the public outcry following the publication of biologist Rachel Carson’s research on the toxic legacy of chemical pesticides. The chemical industry and its trade association, the Chemical Manufacturers Association (CMA), launched a massive PR campaign to sow doubt about Carson’s methods and findings (Murphy 2005). Though ultimately unsuccessful in stemming the tide of change in public and political attitudes evoked by Carson’s book *Silent Spring*, this PR campaign taught industrialists that managing public perception and political decision-making around environmental issues was not only a worthwhile investment, but also a necessary one. Between the early 1970s and the mid-1990s, corporate PR agents and firms built advocacy structures to anticipate and manage environmental policy issues (Aronczyk 2018). In turn, the environmental movement and other NGOs increasingly engaged PR professionals, either through building up their in-house capabilities or by hiring specialized firms. NGOs hired PR firms to manage their organization’s brand image (Dauvergne and LeBaron 2014: 127, Bob 2005: 45) and to provide other services such as “media monitoring, reputation management and repair, crisis management, media training, strategic communications including positive framing of initiatives, media and government relations, and more recently, social media engagement” (Jansen 2017 152). Given the enormous competitive advantage gained through their use, PR campaigns and other forms of professionalized advocacy are used by powerful organizations and social movements alike (Howard 2006; Karpf 2012; Wolfson 2014, Mix and Waldo 2015:126).

As a result, it has now become common practice for corporations, government, and advocacy organizations to employ PR firms to conduct information and influence campaigns (IICs), “systemic, sequential and multifaceted effort[s]” to promote information that orients the political decision-making process toward their desired outcomes (Manheim 2011:18). These communications and political campaigns constitute major investments of institutional resources, with expenditures ranging from \$10 million to in excess of \$100 million a year for a single PR campaign (Brulle et al. 2020). These IIC campaigns have had a major impact on both public and elite understanding opinion of climate change and

subsequent policy actions (Goldberg et al. 2021, Nesbit 2016, Pfau et al. 2007, Cho et al. 2006, Cooper and Nownes 2004 Bell and York 2010: 139).

The widespread use of PR has led to the blurring of the difference between PR activities and activism (Adi 2019). Moloney (2006), echoing Habermas (1989: 141–180), argues that because of the promotional nature of the public sphere, all actors are engaged in the promulgation of propaganda, which takes the form of “communications where the form and content is selected with the single-minded purpose of bringing some target audience to adopt attitudes and beliefs chosen in advance by the sponsors of the communications” (Carey 1995: 20). L’Etang (2016: 33) argues that when we reframe PR and social movements as similar social processes engaged in the development and promulgation of “persuasive communications and propaganda,” it becomes clear that these two activities are part of the larger sociological processes of social conflict and change. Farrell (2016a) shows that a complex network of organizations, including think tanks and public relations firms, form a critical component in the development and promulgation of misinformation regarding climate change. These organizations then have a significant impact on media coverage of this issue (Farrell 2016b).

Thus, there is considerable controversy over the nature of public relations and activism, and whether they can be equated (Weaver 2019). This controversy is complicated by the existence of joint industry/environmental PR campaigns, such as the partnership of WWF with the American Cattleman’s Association to promote the consumption of beef (Ipsos Public Affairs 2013). While this is a critical issue, the focus of this paper is an empirical description of the extent of PR firm engagement across major sectors regardless of the form it takes. We make no assumptions regarding the moral equivalence of advocating for or against climate action. Our data does not support the characterization of differences between campaigns conducted by PR firms for corporations versus those of NGOs. Thus, we treat the engagement of PR firms as a binary data point.

## 2 The role of public relations in climate change

When the issue of climate change emerged at the end of the 1980s, the use of PR firms had become a standard operating procedure in political action and was routinely employed by all of the well-funded institutions involved in politics. Thus, almost immediately after James Hansen’s dramatic testimony on climate change before Congress in 1988, PR efforts to counter climate action were launched. For example, the Global Climate Coalition, a leading industry group opposed to climate action, hired E. Bruce Harrison, the “father of environmental PR” (Aronczyk 2018) to develop and carry out their campaign to stop international efforts to address climate change. Since then, there have been numerous documented instances of PR companies playing a central role in climate change political action (Sheehan 2018, Matz and Renfrew 2015, Porter 1992, Nesbit 2016: 15, Schneider et al. 2016, Leonard 2019: 449, Pooley 2010: 302 & 308). For the most part, this literature addresses these PR campaigns as part of a larger historical narrative and mention PR firms only in passing. Thus, PR firms are treated as generic organizations, not as active agents, obscuring the important role that PR companies play in the conceptualization, design, and execution of communications and political campaigns. For this reason, the empirical scholarship on these climate change political actors remains limited. Focused scholarship on the role of PR in climate politics is only now beginning to emerge. In their important recent analysis, Michaels and Ainger (2020) provide a descriptive overview of the key PR firms

working in Europe to obstruct climate action. This analysis demonstrates that several large PR companies are critical actors in the political struggles regarding climate change. So while the existing literature shows that PR firms are involved in the creation and execution of communications and political campaigns designed to affect climate change political action, the empirical analysis of the extent of this involvement remains unknown.

### 3 Research methodology

In this paper we aim to provide an initial exploratory analysis of the nature and extent of the engagement of PR firms in the climate change public sphere. We explore three questions:

1. What is the extent of PR firm's involvement in climate politics?
2. Which PR firms are most frequently used by organizations in key economic sectors engaged in climate change politics?
3. What activities do the leading PR firms undertake to advance these advocacy efforts?

To conduct this research, our first step was to identify key organizational actors in US climate change politics, which serve as the sample used to measure empirically the extent of their PR firm use. A list of major organizational actors in US climate change politics at the national level was developed utilizing the listing in Downie (2019), mentioned in Pooley (2010), or identified as lobbying on climate change from 2000 to 2016 (Brulle 2018) and representing the following sectors: (1) Coal/Steel/Rail, (2) Environmental Movement, (3) Gas & Oil, (4) Renewable Energy, and (5) Utilities. This research resulted in the identification of a sample of 214 organizations.<sup>3</sup>

The second step was to determine which PR firms worked for these organizations. Answering this question required extensive use of data sources not normally utilized to support research in this area. By their very nature, promotional campaigns are difficult to study. They are conducted mostly by PR firms under private engagements or in-house by the organization sponsoring them. Additionally, in keeping with the PR adage, "the best PR is invisible PR," public relations firms and the organizations that engage them have endeavored to maintain a low profile regarding their role in climate communications efforts. PR firms sometimes go to great lengths to conceal their identity and overall role in communications and political campaigns. Thus, the study of climate change promotional campaigns is dependent on secondary data analysis utilizing industry sources.

Much of this data is provided voluntarily, and thus, PR firms that wish to conceal certain engagements sometimes form subsidiary companies to mask their contractual relationships. Where this concealment occurred, we identified the major PR firm, and not the subsidiary, as the contracting firm. Additionally, since some engagements are omitted from voluntary disclosure requirements, we utilized four partially overlapping sources to identify the selected organizations' use of PR firms: (1) the annual directory *Public Relations Firms in the U.S.*, published by O'Dwyer's, for the period 1989 to 2020, (2) the IRS 990 tax forms for nonprofits in our sample, under the section listing "Independent Contractor," to identify PR firms engaged by nonprofit organizations during this period, (3) recipients

<sup>3</sup> See Table S-8 in the Supplemental Material.

of the major PR awards made during the period studied, to determine if an organization had engaged with any PR firm that received an award, and (4) newspaper accounts of PR firm engagements with specific organizations. This methodology enabled the identification of specific relationships between an organization and a PR firm. Since we were not able to access specific contractual information, we were unable to examine the nature, number, or length of any contractual relationships. Thus, we refer to all documented relationships as engagements. We counted each verified relationship in a year as one engagement. This resulted in a total of 2,867 unique PR firm/organization engagements. These engagements were added sequentially, starting with O'Dwyer's Director Information. This source identified 2,714 (95%) of our sample. The review of IRS 990 forms added an additional 130 (4.5%) unique engagements, review of awards added an additional 12 (<1%) unique engagements, and media reports added 11 (<1%) unique engagements. Out of the total of 214 organizations in the sample, we were unable to identify any PR firms engaged by 22 of them. This process resulted in the identification of 192 unique organizations that had engaged 627 PR firms over the period studied.

To examine the nature of the activities the PR firms undertook for these organizations, we constructed a sample of twenty firms consisting of the ten firms with the highest level of engagement by organizations in the selected sectors (see Table 3) and ten other PR firms that have garnered significant media coverage for their work on behalf of certain clients. We then conducted an extensive literature review of twelve major publications, a Nexis Uni search of local news, and a review of the PR firm's web site for any mentions of an association between these twenty PR firms and any activities that these firms carried out for any of the 192 organizations in the sample.<sup>4</sup> We compiled the results of this literature review into a series of PR firm profiles, which are provided in the Supplementary Material. From this publicly available material, we were able to identify 65 unique campaigns of varying complexity and focus carried out by these PR firms. They range from a targeted advertising campaign conducted by Burson Cohn & Wolfe in selected states to pressure US senators to vote against President Clinton's BTU tax, Glover Park Group's efforts to generate public support for Al Gore's "We" campaign, to Ogilvy's multi-year campaign to rebrand the oil company British Petroleum (BP) "Beyond Petroleum."

Given their incredible variety, we adopted a means to summarize the nature of these PR campaigns utilizing measures in three dimensions. First, to examine the extent of each of the twenty PR firm's engagement, we develop a breakdown of the distribution of their engagement by sector. Second, based on the literature on framing and validity claims, we develop a summary of the different types of campaign strategies these PR firms utilized. We utilized three types of PR strategies: (1) third-party mobilization, (2) corporate image promotion, and (3) delegitimization of opposition.<sup>5</sup> Finally, we developed a summary of the tactics the twenty PR firms utilized in their campaigns. There is a veritable laundry list of activities that can be undertaken in this arena (Manheim 2011: 100–107). The four main approaches that appear in the PR firm profiles involved: (1) paid media campaigns, (2) earned media placements, (3) grassroots rallies/events, and (4) social media campaigns.<sup>6</sup>

<sup>4</sup> A detailed description of the methods used to construct the PR firm profiles is provided in the [Supplementary Material](#).

<sup>5</sup> See the [Supplemental Material](#) for a detailed discussion of the development of the PR strategies categorization.

<sup>6</sup> See the [Supplemental Material](#) for a full description of these tactics.

This methodology has limitations. First, it does not examine the engagement of PR firms at the state and local level, only nationally. The state level use of PR firms is a well-known area of engagement for PR firms, and additional research is needed in this area. Second, this methodology can only capture the use of external PR firms and is unable to identify in-house PR efforts, as there are no publicly accessible records or documents that can establish the existence, nature, or extent of these efforts. Additionally, there are significant differences between nonprofit and corporate reporting requirements. Nonprofits are required to provide information on their five largest contracts (regardless of their nature) on their IRS Annual Information Return (IRS 990). In many cases, these returns provide information on public relations contracts by NGOs and trade associations. Corporations do not have any such requirement. This reporting requirement could bias the sample of PR firm engagement in favor of nonprofits. Finally, this data sample most likely undercounts controversial PR campaign efforts. While an overwhelming percentage of the sample (95%) was due to voluntary disclosures in either O'Dwyer's Directory or through PR awards, a significant number of PR engagements were identified through the review of IRS forms (130/4.5%) or investigative journalism (11/<1%). These campaigns were not voluntarily disclosed and represent campaigns that the PR firm did not wish to become public knowledge. There is no way to determine the extent of campaigns of this nature. This is an important limitation on the accuracy of this dataset.

Accordingly, we make no assumption that this analysis captures all of the activities of these PR firms because this analysis is based only on their appearances in these voluntary industry datasets or in the case of the PR firm profiles, in news media or other publicly available websites. Because of these limitations, this analysis merely establishes a baseline, minimal estimate of the use of PR firms by the organizations in the sample and needs to be expanded through further research. However, while limited, the empirical analysis and the descriptive profiles aggregate a large amount of information about PR firms and their climate-related activities in one place, and as such, allows researchers to begin lifting the veil of secrecy that envelops PR firms and their work.

## 4 Findings

### 4.1 What is the extent of PR firm's involvement in climate politics?

To answer this question, we examined the frequency of PR firm use by sector. This data is shown below in Table 1. The majority of organizations in the sample, regardless of sector, engaged PR firms some time during the 1989–2020 period studied. The percentage of organizations not employing PR firms ranged from 0% for the Gas & Oil Sector to a high of 33% for Renewable Energy Sector. Overall, on average, organizations engaged a PR firm 13.4 times over the entire study period. This ranged from a low of an average of 3 PR firms engaged by the Renewable Energy Sector organizations to a high of an average of 23.22 PR firms engaged by Utilities Sector organizations. An analysis of variance showed that the Utilities Sector had a significantly higher frequency of engaging PR firms than any of the other sectors.<sup>7</sup> The high use of PR firms in the Utilities Sector was driven by the exceptional use of PR firms by General Electric and Siemens. These are highly

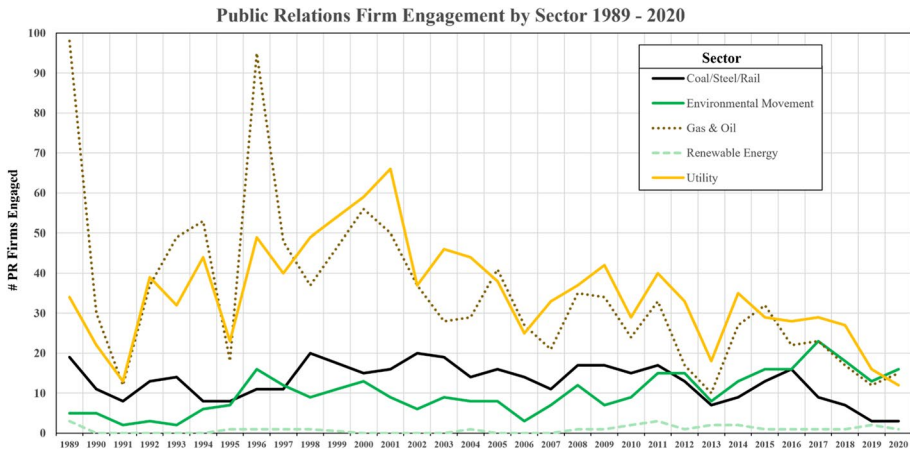
---

<sup>7</sup> Sig=0.017.

**Table 1** Public relations firm engagement by sector

Sector	# organizations in sample	# organizations with no PR firm engagement	# instances of PR firm engagement	Mean instances of PR firm engagement	Median instances of PR firm engagement
Coal/Steel/Rail	35	3	394	11.26	4
Environmental Movement	49	9	311	6.35	2
Gas & Oil	75	0	1067	14.23	2
Renewable Energy	9	3	27	3.00	1
Utilities	46	7	1068	23.22	6.5
Total	214	22	2867	13.40	2





**Fig. 1** Public relations firm hiring by sector 1989–2020

visible corporations, and they clearly make a large investment in hiring PR firms. The public nature of most other utilities did not impact their levels of PR firm hiring in a manner at all comparable to GE and Siemens. Additionally, while the Gas & Oil Sector has an overall higher frequency of PR firm hiring than any of the other sectors in absolute terms, there is no statistically significant difference between the Coal/Steel/Rail Sector, the Gas & Oil Sector, and the Environmental Movement in terms of their PR firm use at the organizational level. Due to the small number of cases, an analysis of the Renewable Energy Sector was not conducted.

Given the uncertainties in this dataset noted previously, a further analysis was conducted to test the reliability of the different levels of PR firm use between sectors by comparing lobbying levels and PR hiring levels. The political science literature commonly differentiates between inside lobbying (lobbyists talking directly with politicians) and outside lobbying (which involves garnering public support for the organization and the policies it desires through public relations techniques) (Kollman 1998: 159). Inside and outside lobbying are seen as two sides of an organizational effort to control its external environment, and so these two efforts should coincide. To test this proposition, the lobbying levels of the 192 firms in the sample were retrieved from Brulle (2018). An analysis of variance showed that the Utilities Sector had a statistically higher use of lobbying firms than did any other sector.<sup>8</sup> Additionally, as expected, lobbying levels correlated with PR firm engagement levels.<sup>9</sup> This finding adds additional confidence to the finding that the Utilities Sector is more heavily engaged in its efforts to control the external political environment, either through inside or outside lobbying than the other sectors examined.

To further examine the use of PR firms over time, we counted the total number of PR firms engaged by each sector over the period studied. This information is shown in Fig. 1.<sup>10</sup> For the most part, the engagement of PR firms is fairly steady throughout the period, with the exception of two spikes in PR firm use in 1989 and 1996 by organizations in the Oil

<sup>8</sup> Sig=0.05.

<sup>9</sup> Sig=0.001.

<sup>10</sup> Data for 1999 by linear interpolation.

**Table 2** Top 25 client organizations with the highest number of PR firm engagements in sample

Client	Frequency	Percent	Cumulative percent (sum of percent descending)	Sector
General Electric	272	9.49	9.49	Utility
Royal Dutch Shell	231	8.06	17.54	Gas & Oil
BP	158	5.51	23.06	Gas & Oil
Siemens	153	5.34	28.39	Utility
ExxonMobil	146	5.09	33.48	Gas & Oil
Chevron	141	4.92	38.40	Gas & Oil
Mobil Oil	92	3.21	41.61	Gas & Oil
Edison Electric Institute	89	3.10	44.72	Utility
CSX Transportation	75	2.62	47.33	Coal/Steel/Rail
American Iron and Steel Institute	73	2.55	49.88	Coal/Steel/Rail
National Grid	58	2.02	51.90	Utility
American Petroleum Institute	55	1.92	53.82	Gas & Oil
Union Pacific	51	1.78	55.60	Coal/Steel/Rail
Natural Resources Defense Council	44	1.53	57.13	Environmental
Southern Company	44	1.53	58.67	Utility
Duke Energy	43	1.50	60.17	Utility
Exelon	42	1.46	61.63	Utility
Enron	37	1.29	62.92	Utility
Nature Conservancy	36	1.26	64.18	Environmental
ConEd	35	1.22	65.40	Utility
Conoco Phillips	33	1.15	66.55	Gas & Oil
Constellation Energy	33	1.15	67.70	Utility
Alliance for Climate Protection	31	1.08	68.78	Environmental
Environmental Defense Fund	28	0.98	69.76	Environmental
Entergy	28	0.98	70.74	Utility

& Gas Sector. These two spikes are due to an increase in the use of external PR firms by all of the major petroleum companies. This pattern coincides with the emergence of climate change as a national issue following the testimony of Dr. Hansen in 1989 and with the effort to enact the Kyoto Protocol between 1996 and 1997. However, there is not enough empirical data to firmly establish these two factors as causing these spikes. Further research on the factors that lead to increases or decreases in PR firm hiring in relation to climate issues is needed. As expected, the number of PR engagements by organizations in the Gas & Oil and Utilities sectors was highest, reflecting the overall higher number of organizations from these sectors in the sample. Additionally, there is a slight but noticeable decline in the number of PR firms engaged over time. The reasons for these shifts are the subject of further research.

However, while organizations from all sectors engaged PR firms, there was significant variation in PR firm engagement by organization. Table 2 provides an analysis of the 25 organizations with the highest number of PR firm engagements. This table shows the notable concentration of PR firm engagement by a small number of organizations. These 25

**Table 3** Top 25 PR firms with highest number of engagements in sample

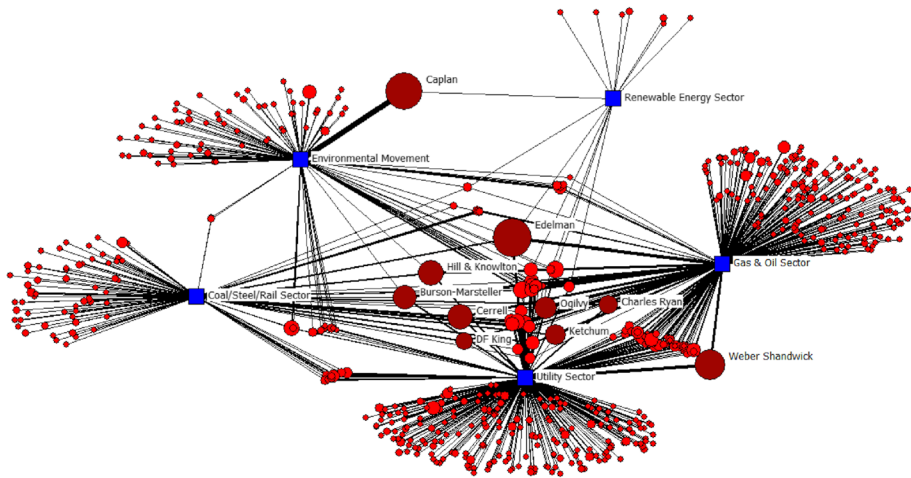
PR firm	Frequency	Percent of contracts	Cumulative percent (sum of percent descending)	Engagement by sector			
				Coal/Steel/Rail	Environmental	Gas & Oil	Renewable Energy
Edelman	85	2.96	2.96	Yes	Yes	Yes	Yes
Caplan	81	2.83	5.79	No	Yes	No	Yes
Weber Shandwick	65	2.27	8.06	Yes	No	Yes	No
Cerrell	51	1.78	9.84	Yes	No	Yes	No
Hill & Knowlton	50	1.74	11.58	Yes	Yes	Yes	Yes
Burson Cohn & Wolfe	47	1.64	13.22	Yes	Yes	Yes	Yes
Ogilvy	41	1.43	14.65	Yes	No	Yes	No
Ketchum	37	1.29	15.94	Yes	No	Yes	No
Charles Ryan	33	1.15	17.09	Yes	No	Yes	No
DF King	31	1.08	18.17	Yes	No	Yes	No
Jaculca Terman	31	1.08	19.25	Yes	Yes	Yes	No
GCI Group	29	1.01	20.27	No	Yes	Yes	Yes
Potomac Comms	26	0.91	21.17	Yes	No	Yes	Yes
Kamber	25	0.87	22.04	Yes	Yes	No	Yes
Kearns & West	24	0.84	22.88	No	No	Yes	No
Manning Selvage & Lee	24	0.84	23.72	No	Yes	Yes	Yes
Porter Novelli	24	0.84	24.56	Yes	Yes	Yes	Yes
Rowland Communications	24	0.84	25.39	Yes	No	Yes	No
Singer Associates	23	0.80	26.19	No	No	Yes	No
The Marino Organization	23	0.80	27.00	No	No	No	No
Conye PR	22	0.77	27.76	No	No	Yes	No
G&S	22	0.77	28.53	Yes	Yes	Yes	No

**Table 3** (continued)

PR firm	Frequency	Percent of contracts	Cumulative percent (sum of percent descending)	Engagement by sector			
				Coal/Steel/Rail	Environmental	Gas & Oil	Renewable Energy
Ruder Finn	22	0.77	29.30	No	Yes	Yes	No
Eric Mower	21	0.73	30.03	Yes	No	Yes	No
McNeely Pigott & Fox	21	0.73	30.76	Yes	No	Yes	No
							Utility
							Yes
							Yes
							Yes

**Table 4** PR firm engagement distribution

Sector distribution			Engagements		
Number of sectors	Number of PR firms	% of PR firms	Number of engagements	Number of PR firms	% of PR firms
1	500	79.7	1	247	39.4
2	87	13.9	2–5	249	39.7
3	29	4.6	6–10	78	12.4
4	10	1.6	11–25	40	6.4
5	1	0.2	Greater than 25	13	2.1

**Fig. 2** Sociogram of public relations firm hiring by sector 1989–2020

organizations represent only 12% of the total sample, but account for over 70% of the total PR firm engagements from 1989 to 2020. Notably, these organizations represent four of the five sectors examined (Gas & Oil, Utilities, Coal/Steel/Rail, and the Environmental Movement). Overall, this analysis shows that the engagement of PR firms is quite common across organizations, regardless of sector or time frame. While the Utilities Sector has made greater use of PR campaigns than other sectors, all five sectors examined utilized PR firms as part of their political efforts.

#### 4.2 Which PR firms are most frequently involved in climate politics?

To answer this question, we first examined the overall use of PR firms. We compiled data on the number of times each PR firm was engaged by an organization. This data is shown in Table 3. This distribution is highly concentrated with a few firms accounting for the majority of the instances of PR firm engagement. The 25 PR firms with the largest number of organizational engagements represent just 0.8% of the total sample of 627 firms. This fraction accounts for over 30% of all PR engagements over the period of the study. Additionally, the top 25% of PR firms accounts for over 70% of all PR firm engagements.

In looking across sectors, there are significant differences in engagement of PR firms, both in terms of engagement by different sectors and the number of engagements per PR firm. Data on engagement was gathered for the period of the study. This data is provided in Table 4. The vast majority (79.7%) of PR firms work in only one sector. Only one PR firm (Edelman) has worked for organizations in all five sectors and thirteen PR firms had more than 25 engagements with the organizations in the sample. Thus, the engagement of PR firms is highly skewed.

This trend became evident when the entire network of relationships between PR firm engagement and sectors was examined utilizing UCINET software. Data for the network analysis was drawn from a two-mode dataset that measured the affiliations between PR firms and sectors. The cells of the matrix take on the number of engagements of each PR firm by sector.<sup>11</sup> The sociogram shown in Fig. 2 shows PR firm engagement by sector, where the number of engagements for each PR firm in each sector is represented by the width of the connecting line, and the total number of engagements for each PR firm is represented by the area of the circle. The top 10 PR firms with the largest number of engagements are shown in dark red and identified. This sociogram shows that the vast majority are engaged in only one sector, and usually have only one or two engagements with any given organization. The number of shared PR firms is especially high between the Utilities and Gas & Oil sectors. There are also a number of PR firms that engage with three to five sectors. Many of these firms have a high frequency of PR engagements, particularly in the Coal/Steel/Rail, Utilities, and Gas & Oil sectors. The Environmental Movement and the Renewable Energy sectors do share links with these firms, but they are not as extensive as the other sectors' links.

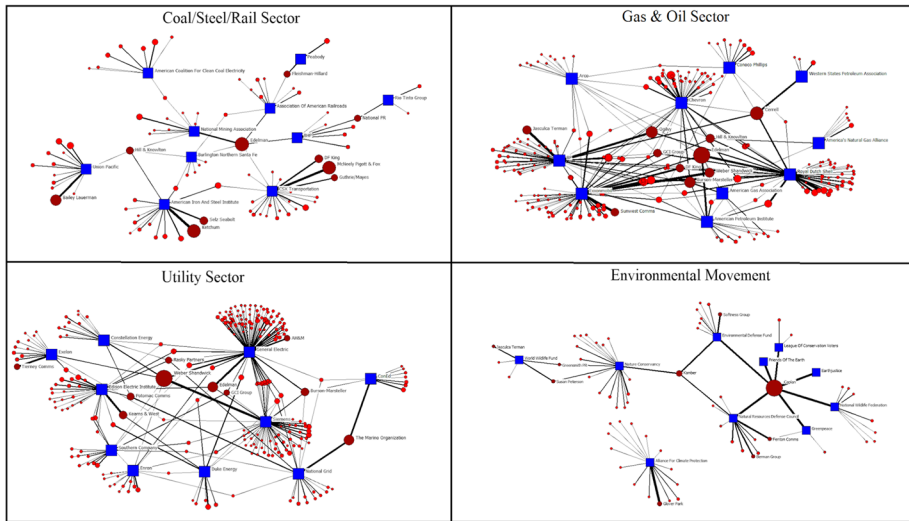
Finally, an analysis of PR firm engagement by sector was conducted. Two dimensions of PR firm engagement were examined for each sector. The first dimension was the number of PR firms engaged by different sectors.<sup>12</sup> In the Coal/Steel/Rail Sector, all of the organizations were either corporations or trade associations. The majority of the organizations engaging PR firms are from either the railroad or mining industries. Turning to the Gas & Oil Sector, the top organizations engaging PR firms are the major oil companies or their trade associations. The Utilities Sector is dominated by companies associated with electrical supply equipment (GE and Siemens), and major electrical companies. Finally, the Environmental Movement Sector comprises the large, major environmental organizations. Collectively, the ten organizations with the highest levels of engagement in each sector represent between a low of 69% in the Environmental Movement Sector to a high of 87% in the Gas & Oil Sector. So while it is clear that the use of PR firms is widespread, a few large corporations or major national trade associations and environmental movement organizations employ the overwhelming majority of PR firms across all of the sectors examined.

The second dimension studied was the engagement of PR firms by firms in different sectors.<sup>13</sup> The extent of PR firm engagement, represented by the top ten PR firms engaged, ranges from a low of 20% by the Utilities Sector to a high of 54% by the Environmental Movement Sector. The latter is unique in the extent of concentration of hiring from a single PR firm, Caplan Communications. This firm represents over 25% of all PR firm hirings in this sector. Additionally, several firms consistently appear in the top ten PR firms used by the Coal/Steel/Rail, Gas & Oil, and Utilities sectors. Charles Ryan, Weber Shandwick,

<sup>11</sup> Network metrics provided in Table S-3 in the Supplemental Material.

<sup>12</sup> Data on the ten organizations with the largest number of engagements by sector provided in Table S-1.

<sup>13</sup> Data on the ten PR firms with the largest number of engagements by sector provided in Table S-2.



**Fig. 3** Sociogram of top 10 public relations firm hiring by top 10 organizations by sector 1989–2020

Carrell, Hill and Knowlton, and DF King were used by two of these three sectors. Edelman was hired by all three sectors. No PR firms that appear in the top ten firms used by these sectors also appeared in the Environmental Movement Sector, and no PR firms engaged by the Environmental Movement Sector appear in the top ten firms used by the other three sectors. This trend indicates that there is a division of labor among PR firms, with many firms specializing in representing the Coal/Steel/Rail, Gas & Oil, and Utilities sectors and others that specialize in representing the Environmental Movement Sector.

To consolidate this information, a network analysis utilizing UCINET software was conducted. For each sector, the ten organizations with the largest number of PR engagements were compiled.<sup>14</sup> Data for the network analysis was drawn from a two-mode dataset that measured the affiliations between PR firms and organizations for each of the four sectors. The cells of the matrix take on the number of engagements of each PR firm by organization. Based on this analysis, a series of four sociograms was constructed that together illustrate the relationships between the ten organizations and PR firms that had the highest number of in each sector. These data are illustrated in Fig. 3. In these diagrams, the number of PR engagements between each organization and a specific firm is represented by the width of the line connecting it to that firm. The overall number of PR engagements for each PR firm is shown in the size of the symbol for the PR firm. The figure clearly shows the density of each network, in which the Gas & Oil Sector is densest, closely followed by the Utilities Sector. The Coal/Steel/Rail Sector's network is considerably less dense, and the Environmental Movement Sector's is relatively sparse. This reflects the greater engagement of PR firms by organizations in the Gas & Oil and Utilities sectors. Additionally, the enormous role played by General Electric, Siemens, and the major oil companies in engaging PR firms is evident. Finally, the Environmental Movement's engagement pattern with PR firms is dominated by Caplan Communications. Additionally, the Alliance for Climate

<sup>14</sup> Network metrics provided in Tables S-4 to S-7 in the Supplemental Material.

**Table 5** PR firm engagements by sector, 1989–2020

	Oil/Gas		Coal/Steel/ Rail		Environmen- tal Movement		Utilities		Renewable Energy	
Edelman	40	47%	20	23%	1	1%	23	27%	1	1%
Burson Cohn & Wolfe	37	56%	4	6%	1	1%	24	36%	0	0%
Weber Shandwick	21	32%	0	0%	0	0%	44	67%	0	0%
Cerrell	33	79%	3	7%	0	0%	6	14%	0	0%
Dittus Communications/Story Partners	15	50%	2	6%	0	0%	13	43%	0	0%
FleishmanHillard	10	50%	9	45%	0	0%	1	<1%	0	0%
Hawthorne Group/Bonner & Associates	4	17%	9	39%	0	0%	10	43%	0	0%
Potomac Communications	1	<1%	1	<1%	0	0%	24	92%	0	0%
John Adams & Associates	5	45%	0	0%	3	27%	2	18%	1	10%
HDMK	2	100%	0	0%	0	0%	0	0%	0	0%
Leo Burnett Worldwide	0	0%	0	0%	17	0%	0	0%	0	0%
Oglivy	25	61%	6	15%	0	0%	10	24%	0	0%
Hill & Knowlton	32	64%	9	18%	1	<1%	8	16%	0	0%
Glover Park Group	6	35%	0	0%	11	65%	0	0%	0	0%
Ketchum	16	43%	19	51%	0	0%	2	1%	0	0%
DF King	19	61%	10	32%	0	0%	2	1%	0	0%
DDC Advocacy	7	54%	2	15%	0	0%	4	30%	0	0%
Charles Ryan Associates	8	24%	12	36%	0	0%	13	39%	0	0%
DCI Group	12	60%	8	40%	0	0%	0	0%	0	0%
Caplan	0	0%	0	0%	78	96%	0	0%	3	4%

Protection forms its own separate network, apart from the rest of the Environmental Movement organizations.

#### 4.3 What activities do the leading PR firms undertake to advance these advocacy efforts?

To answer this question, we utilize the data developed in the twenty PR profiles we constructed (discussed above). To provide an overall idea of the engagement patterns of the PR firms, we compiled a distribution of each firm's engagement in different sectors. This information is provided in Table 5. As this table shows, there are a number of firms that concentrate their work primarily in one sector. As mentioned, Caplan Communications concentrates on the Environmental Movement, with 96% of its work performed for organizations in that sector. Similarly, Potomac Communications focuses primarily (92%) on the Utilities Sector. There is a fairly consistent division of labor across PR firms, in that very few work for both the Environmental Movement and for the Oil & Gas, Coal/Steel/Rail, and Utilities sectors. Since the latter three sectors are associated with the production and use of fossil fuels, it appears that PR firms that were profiled make a strategic choice about which sectors they will represent in their work on climate change and energy matters. Further research is needed in this area.



**Table 6** Strategies and tactics used by select PR firms on behalf of clients involved in climate politics

	Strategies		Tactics				
	Third-party mobilization	Corporate image promotion	Delegitimization of opposition	Paid media campaigns: PR int/TV/radio	Earned media placements	Grassroots rallies/events	Social media campaigns
Edelman	X	X	X	X	X	X	X
Burson Cohn & Wolfe	X	X		X	X		X
Weber Shandwick	X	X		X	X		X
Dittus Communications/ Story Partners	X	X		X			X
FleishmanHillard	X	X		X	X		X
Cerrell Associates	X	X		X	X		X
Hawthorne Group/ Bonner & Associates	X	X		X	X	X	X
Potomac Communications	X			X	X		X
John Adams & Associates	X	X		X			X
HDMK	X	X		X			X
Leo Burnett Worldwide	X		X	X	X	X	X
Ogilvy		X		X	X	X	X
Hill & Knowlton	X	X		X	X		X
Glover Park Group		X		X	X	X	X
Ketchum		X	X	X	X		X
DDC Advocacy	X	X	X	X	X	X	X
DCI Group	X	X	X	X			X
Charles Ryan Associates	X	X		X	X	X	X
Caplan	X		X	X	X	X	X
DF King	X			X			

We then examined the strategies that the PR firms utilized. We summarized the material in the profiles into the employment of three different strategies. The results of this summary are provided in Table 6. As this table shows, the most common strategy PR firms use is corporate image promotion.

Commonly called greenwashing, corporate image promotion efforts are a major component of corporate reputation management (Brulle et al. 2020). These campaigns, which can exceed \$100 million in organizational expenditures in a single year, attempt to create the impression that the client organization is a trustworthy and socially responsible actor. The second-most common PR tactic is to engage in third-party mobilization. Finally, the least used PR tactic is delegitimization of the opposition. Although the promulgation of scientific misinformation has been a significant factor in the overall cultural struggle over the issue of climate change, this strategy does not appear to be widespread among the PR firms profiled, at least according to evidence in the publicly available information on these firms. Promulgation of scientific misinformation by conservative think tanks, corporations such as ExxonMobil, and trade associations such as the American Petroleum Institute is well documented (Boycoff and Farrell 2020; Dunlap and McCright 2011). Little is known about the relationships between PR firms, think tanks, and trade associations and the extent of their coordination and cooperation in such misinformation campaigns.

The final dimension we examined was the tactics different PR firms employ to realize the above strategies. The four main approaches that appear in our PR firm profiles involved: (1) paid media campaigns, (2) earned media placements, (3) grassroots rallies/events, and (4) social media campaigns.<sup>15</sup> A summary of the PR tactics identified in the PR firm profiles is also shown in Table 6. All PR firms examined both acquired paid media placements and created social media campaigns. These are core activities of modern day IICs. Additionally, a large majority (75%) of PR firms worked to enable earned-media placements. About 40% of the PR firms appeared to be involved in grassroots rallies or events, commonly known as astroturfing (Walker 2014). Astroturfing involves the creation of organizations that simulate citizen support for a corporate position (Lits 2021: 1665). The use of this strategy in environmental campaigns has been an increasing topic of academic interest (Walker 2014; Lits 2020; Bsumek et al. 2014; Metze and Dodge 2016). It is unclear why this approach is used less than paid or earned media campaigns. It could be because these are more time consuming and costly to arrange and can be delegitimized if the role of the PR firm in their creation is exposed. Further empirical research into this area is needed.

## 5 Conclusion and discussion

Public relations firms are clearly major organizational actors in climate politics. Their efforts range from running-short lived advertising campaigns to multi-year information and influence campaigns. This analysis shows the engagement of PR firms by organizations in all of these sectors is widespread, with the Utilities Sector showing a greater use of PR firms than the other sectors. Engagement of PR firms by each sector is concentrated in a few firms. PR firms generally specialize in representing specific sectors, although a few larger PR firms are widely engaged in climate and energy political activity. PR firms have developed IICs that frequently relied on third-party groups to engage

<sup>15</sup> See the [Supplemental Material](#) for a full description of these tactics.

with the public, criticize opponents, and serve as the face of an advertising campaign. Campaigns intended to bolster the image of an entire sector also often relied on third-party groups to engage the public.

The impact of these campaigns is hard to ascertain. However, these efforts have instantiated cultural concepts such as “coal country” or “carbon footprint” into the taken-for-granted discourse on climate change. While that process certainly shifted the discursive framing of climate politics, it is unclear how much effect it has had on policy making. Additionally, since much of our information regarding these campaigns comes from self-promotional news released by the PR firms themselves, separating the results claimed by PR firms from their actual impacts is a task that remains to be completed. Also, many of these campaigns aimed to shift public opinion. Yet despite extensive research into public opinion on climate change *per se*, we have identified no studies that measure the impact of such campaigns on public opinion.

While this study has revealed some insights into the activities of PR firms regarding climate politics, there is a paucity of data available to study these activities. Further innovative research methodologies are needed to bring more information to light to ensure that robust and reliable data on PR activities can be collected. Tracing of advertising revenues and engagements utilizing the extensive private datasets maintained by entities such as Kantar Media or analyzing engagement patterns of key PR professionals may provide new means to research the activities of PR firms. Additionally, while there are distinct patterns of PR firm engagement by sector, the reasons for this trend remain unknown. Coupling of additional data regarding PR firm and organizational characteristics may lend further insights. Finally, given the datasets available to the public, it is virtually impossible to connect specific PR companies with specific organizations’ campaigns. The development of more sensitive datasets is necessary to move this type of research forward. Finally, a key research question is whether the nature of PR firm activity varies according to whether they are engaged by a corporation or a nonprofit. Since nonprofit organizations can include conservative think tanks, industry trade associations, and environmental groups, this analysis must take into account the different political orientations and objectives across a wide range of NGOs.

Despite the limitations of this study, it is clear in the political and cultural competition among incommensurate and fragmented viewpoints, the creation of a strong PR effort has become an essential part of virtually all large organizations’ efforts to affect climate policy. Being able to effectively promulgate a particular narrative allows an organization to set the terms of the debate to favor their preferred outcomes. Thus, PR firms can be expected to continue to play a vital role in this arena.

This study adds a new cast of characters to our understanding of the key actors in climate change politics. Along with ExxonMobil, Koch Enterprises, Greenpeace, the Heartland Institute, and the Competitive Enterprise Institute, we need to add in PR firms such as Edelman, Glover Park, Cerrell, and Ogilvy. As major players in the climate political arena, they have shifted public discourse and the prospects for climate action. The impact of these PR activities, especially the promulgation of misinformation to mislead the public about climate change, has been cited in several climate litigation cases. By documenting the role of these PR firms, this analysis should aid in efforts to hold these organizations accountable for obstructing climate action.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s10584-021-03244-4>.

**Acknowledgements** The successful completion of this paper was enabled by an excellent research team of undergraduate students composed of Kimberly Collins, Maya Jackson, Kian Kafaie, Eve Lukens-Day, and Emily Rockwell. Their diligence, tenacity, and attention to detail made this research possible.

**Funding** This research was funded in part by the National Science Foundation Sociology program Grant #1558207 “The Role of Information and Influence Campaigns in Structuring Responses to U.S. Policy 1988–2015” and a grant from the Institute at Brown for Environment and Society, Brown University, Providence, RI.

**Availability of data and material** Available upon request from the author for scholarly research.

**Code availability** Not applicable.

## Declarations

**Conflict of interest** The authors declare no competing interests.

## References

- Adi A (ed) (2019) *Protest public relations: communicating dissent and activism*. Routledge, New York
- Aronczyk M (2018) Public relations, issue management, and the transformation of American environmentalism, 1948–1992. *Enterp Soc* 19(4):836–863
- Bell SE, York R (2010) Community economic identity: the coal industry and ideology construction in West Virginia. *Rural Sociol* 75(1):111–143
- Bob C (2005) *The marketing of rebellion*. Cambridge University Press, New York
- Boycott M, Farrell J (2020) Climate change countermovement organizations and media attention in the United States. In: Almiron N, Xifra J (eds) *Climate change denial and public relations*. Routledge, New York, pp 121–139
- Brulle RJ (2018) The climate lobby. *Clim Chang* 149(3):289–303
- Brulle RJ, Aronczyk M, Carmichael J (2020) Corporate promotion and climate change. *Clim Chang* 159(1):87–101
- Bsumek P, Schneider J, Schwarze S, Peebles J (2014) Corporate ventriloquism: corporate advocacy, the coal industry, and the appropriation of voice. In: Peebles J, Depoe S (eds) *Voice and environmental communication*. Palgrave Macmillan, London, pp 21–43
- Carey A (1995) *Taking the risk out of democracy*. University of Illinois Press, Chicago, IL
- Cho C, Patten D, Roberts R (2006) Corporate political strategy: an examination of the relation between political expenditures, environmental performance, and environmental disclosure. *J Bus Ethics* 67:139–154
- Cooper C, Nownes A (2004) Money well spent?: An experimental investigation of the effects of advertorials on citizen opinion. *Am Politics Res* 32(5):546–569
- Cutlip SC (1994) *The unseen power*. Lawrence Erlbaum Assoc, Hillsdale
- Dauvergne P, LeBaron G (2014) *Protest Inc*. Polity Press, Malden
- Downie C (2019) *Business battles in the US. energy sector*. Routledge, New York
- Dunlap RE, McCright AM (2011) Organized climate change denial. *The Oxford Handbook of Climate Change and Society* 1:144–160
- Farrell J (2016a) Network structure and influence of the climate change counter-movement. *Nat Clim Chang* 6(4):370–374
- Farrell J (2016b) Corporate funding and ideological polarization about climate change. *Proc Natl Acad Sci* 113(1):92–97
- Goldberg MH, Gustafson A, Rosenthal SA, Leiserowitz A (2021) Shifting republican views on climate change through targeted advertising. *Nat Clim Chang* 1–5. [nois press](https://doi.org/10.1038/s41558-021-00888-8)
- Greenberg J, Knight G, Westersund E (2011) Spinning climate change: corporate and NGO public relations strategies in Canada and the United States. *Int Commun Gaz* 73(1–2):65–82
- Habermas J (1989) *The public sphere*. In: Bronner E, Kellner D (eds) *Critical theory and society*. Routledge, New York, pp 102–107
- Habermas J (1996) *Between facts and norms*. MIT Press, Cambridge, MA
- Habermas J (1998) *On the pragmatics of communication*. MIT Press, Cambridge MA

- Habermas J (1962 [1989]) *The structural transformation of the public sphere*. MIT Press, Cambridge
- Howard P (2006) *New media campaigns and the managed citizen*. Cambridge University Press, Cambridge
- Ipsos Public Affairs (2013) *An unlikely partnership serves up sustainable beef to change perceptions across supply chain – PR award nomination*. Public Relations Society of America, Madison WI
- Jansen SC (2017) *Stealth communications: the spectacular rise of public relations*. John Wiley & Son
- Karpf D (2012) *The MoveOn effect*. Oxford University Press, New York
- Kollman K (1998) *Outside lobbying*. Princeton University Press, Princeton NJ
- L'Etang J (2016) History as a source of critique. In: L'Etang J, McKie D, Snow N, Xifra J (eds) *The Routledge handbook of critical public relations*. Routledge, New York, pp 28–40
- Laumann E, Knoke D (1987) *The organizational state*. University of Wisconsin Press, Madison, WI
- Leonard C (2019) *Kochland*. Simon & Schuster, New York
- Lepore J (2012) *The lie factory*. *The New Yorker*, September 24, 2012
- Lits B (2020) Detecting astroturf lobbying movements. *Commun Public* 5(3–4):164–177
- Lits B (2021) Exploring astroturf lobbying in the EU: the case of responsible energy citizen coalition. *Eur Policy Anal* 7:226–239
- Magnan A (2006) Refeudalizing the public sphere. *Can J Sociol* 31(1):25–53
- Manheim J (2011) *Strategy in information and influence campaigns*. Routledge, New York, NY
- Matz J, Renfrew D (2015) Selling “fracking.” *Environ Commun* 9(3):288–306
- Metze T, Dodge J (2016) Dynamic discourse coalitions on hydro-fracking in Europe and the United States. *Environ Commun* 10(3):32–53
- Michaels L, Ainger K (2020) The climate smokescreen. In: Almiron N, Xifra J (eds) *Climate change denial and public relations: strategic communication and interest groups in climate inaction*. Routledge, UK, pp 159–177
- Miller D, Dinan W (2008) *A century of spin*. Pluto Press, London
- Mix TL, Waldo KG (2015) Know(ing) your power: risk society, astroturf campaigns, and the battle over the Red Rock coal-fired plant. *The Sociological Quarterly* 56(1):125–151
- Moloney K (2006) *Rethinking public relations: PR propaganda and democracy*. Routledge, New York
- Murphy P (2005) *What a book can do*. University of Massachusetts Press, Amherst
- Nesbit J (2016) *Poison tea*. St. Martin's Press, New York
- Pfau MM, Haigh JS, Wigley S (2007) The influence of corporate front-group stealth campaigns. *Commun Res* 34:73–99
- Pooley E (2010) *The climate war*. Hyperion, New York
- Porter WM (1992) The environment of the oil company: a semiotic analysis of Chevron's “People Do” commercials. In: Toth E, Heath R (eds) *Rhetorical and critical approaches to public relations*. Lawrence Erlbaum Associates, Hillsdale NJ, pp 279–300
- Potter SP (1990) *The American Petroleum Institute: an informal history, 1919–1987*. American Petroleum Institute, Washington DC
- Schneider JS, Schwarze PB, Peebles J (2016) *Under pressure*. Palgrave, London
- Sheehan K (2018) This ain't your daddy's greenwashing: an assessment of the American Petroleum Institute's power past impossible campaign. In *Intellectual property and Clean Energy*. Springer, Singapore, pp 301–321
- Sison M (2013) Creative strategic communications: a case study of Earth Hour. *Int J Strateg Commun* 7:227–240
- Stauber JC, Rampton S (1995) *Toxic sludge is good for you*. Common Courage Press
- Walker ET (2014) *Grassroots for hire: public affairs consultants in American democracy*. Cambridge University Press, Cambridge, UK
- Weaver CK (2019) The slow conflation of public relations and activism: understanding trajectories in public relations theorizing. In: Adi A (ed) *Protest public relations: communicating dissent and activism*. Routledge, New York, pp 12–28
- Wolfson T (2014) *Digital rebellion: the birth of the cyber-left*. University of Illinois, Urbana-Champaign