INTERNET-MEDIATED CLIMATE CHANGE ADVOCACY: ORGANIZATION, MOBILIZATION, AND ONLINE INFRASTRUCTURE

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ABSTRACT

The Internet's emergence as a critical platform for political participation has fostered new types of advocacy organizations whose use of the Internet sets them apart from their pre-Internet predecessors. Although these Internet-mediated, MoveOn.org-type advocacy groups seem to operate differently from their legacy counterparts, they share a common technological context, relying on similar tools, including private information intermediaries like social networks, to carry out their work. Single-issue advocacy communities—including the climate change community—have also produced many such organizations. These issue-specialist organizations share many characteristics with both their multi-issue counterparts and environmental predecessors—but also differ in important ways.

Employing a mixed-methods, research portfolio approach, this dissertation explores the similarities and differences in strategic Internet use between different types of U.S. environmental and climate change advocacy organizations. How do the online strategies of Internet-mediated advocacy organizations differ from or replicate those of legacy organizations? How are Internet-mediated climate, and legacy environmental organizations, using email to communicate about climate change? Do the policies and architectures of online intermediaries, such as social networking sites, affect the work of advocacy organizations?

The study relies on interviews with online strategists at several climate change and environmental advocacy organizations, and a quantitative content analysis of mass emails produced by most of these groups. The following organizations are studied: Environmental

Defense Fund, Natural Resources Defense Council, Sierra Club, Greenpeace USA, League of Conservation Voters, Energy Action Coalition, Climate Reality Project, 1Sky, and 350.org. The study finds differences and similarities in strategic Internet use between climate and environmental organizations, including greater emphasis by climate organizations on high-threshold, offline actions; greater emphasis by environmental groups on low-threshold, online actions—particularly donation requests; and high reliance by both on motivational framing that demands accountability from policymakers. It also finds differences between climate Internet-mediated groups and their multi-issue counterparts, including a lower reliance on event-driven fundraising appeals by climate groups. Finally, it finds a general lack of knowledge or concern among online strategists about important aspects of private information intermediaries that could affect their work. Implications and future research agendas for climate communication, Internet-mediated activism, and Internet governance are discussed.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

CHAPTER 1

INTRODUCTION

The Political Intractability of Climate Change

Climate change is arguably the most urgent global challenge humanity faces today and for the foreseeable future. It is also one of the most politically vexing—especially in the United States.

In June 1988, Dr. James Hansen, then-head of the NASA Goddard Institute for Space Studies, told a U.S. Senate committee that scientists were "99 percent certain" that rising global temperatures seen in recent years were caused by the accumulation of carbon dioxide and other greenhouse gases in the atmosphere—the by-products of increased industrial activity over the last century (Shabecoff, 1988). Twenty-five years later, virtually no major federal legislation, regulation, or national effort to address the issue has been enacted, and U.S. participation in international efforts to tackle climate change has been minimal, if not obstructive.

Since 2003, seven climate change bills have been introduced in Congress, but only one was approved by the House of Representatives, and all seven have died in the Senate (Layzer, 2011, pp. 368-377). In addition, the Senate never ratified the Kyoto Protocol that President Bill Clinton signed in 1997, and leading environmentalists have severely criticized President Barack Obama for the role the U.S. played during the UN Climate Change Conference in 2009, where a successor to the Kyoto treaty was being negotiated (McKibben, 2009). Even state-based efforts to combat climate change in the U.S. have been attacked in recent years. For example, New Jersey governor Chris Christie pulled his state out of the Regional Greenhouse Gas Initiative (RGGI) it had previously joined along with nine other Eastern Seaboard states (Eilperin, 2011).

The U.S. has failed to enact comprehensive climate solutions at the national level despite the fact that environmental organizations and their allies have invested heavily in the struggle. In

2009, when Congress was closer than ever to enacting comprehensive climate legislation—see Layzer (2011) and Pooley (2010) for detailed narratives—environmental and allied groups spent an estimated $394 million in climate and energy-related advocacy, outspending their opponents among conservative advocacy groups and trade associations by $135 million (Nisbet, 2011). Despite a widespread scientific consensus about the dangers of climate change (Houghton et al., 2001) and the large sums of money and resources that has been poured into efforts to deal with climate change comprehensively in the U.S., these efforts have repeatedly failed or fallen short of expectations.

Most of the organizations spending this money are well-established players in an environmental advocacy ecosystem that has been fairly stable since the 1970s (Bosso, 2005). Many of them have relied for years on the "armchair activism" model exhibited by organizations founded during the advocacy group boom of the late '60s-early '70s, which encouraged individual donations to support expert lobbying in Washington, D.C. or low-cost activities like letter-writing, but little else (Skocpol, 2003). These groups have been blamed recently in post-mortems of the 2009-10 climate legislation failure for relying on just such advocacy models that asked for little citizen involvement, and relied instead on a Washington-based "inside" game that emphasized think tank style analysis, lobbying, and coalition building (Bartosiewicz & Miley, 2013; Skocpol, 2013).

A Changing Political Advocacy Landscape

But political advocacy in the U.S. has changed significantly since the 1970s, when the environmental advocacy community as we know it took shape. One of the most significant changes has been the emergence of the Internet as a critical platform for political information, expression, and participation. The Internet has become a fixture of our political lives. We take

for granted the instant availability of political news and information through our PCs, laptops, smart phones and tablets, as well as the opportunity to become involved in electoral and issue-based political campaigns with the click of a mouse or a tap on a glass screen. While the debate over the Internet's impact on political participation and mobilization has raged since almost the inception of the Web and will probably continue for the foreseeable future (see: Davis, 2010; Gladwell, 2010; Hindman, 2009; Sunstein, 2001), the Internet's role as a channel for the consumption and discussion of political information, and a vehicle for political participation, has been established to varying degrees in most societies.

Within this larger trend, one important change in the U.S. issue advocacy landscape has been the formation of new types of political organizations that would not have been viable without the Internet's emergence as a major communication platform. These Internet-mediated advocacy organizations display a hybrid mobilization model most commonly associated with MoveOn.org, which "sometimes behaves like an interest group, sometimes like a social movement, sometimes like the wing of a traditional party during an election campaign" (Chadwick, 2007, p. 284). They tend to employ fewer full-time staff, operate in hybrid, networked environments that mix face-to-face interactions with virtual ones, have smaller operating budgets, and rely on different fundraising models than what we might call their 'legacy' predecessors (Karpf, 2012).

Although these organizations tend to operate outside the boundaries of single-issue advocacy, defining their identities instead through an overwhelmingly pan-progressive lens, single-issue advocacy communities have not been immune to this new trend in political organization. Climate change has been one of the most prolific issue areas in this regard, giving birth in recent years to several such organizations. These include groups like 350.org

(pronounced three-fifty-dot-org), the 1Sky campaign (pronounced one-sky) that merged with 350.org in April 2011, the Energy Action Coalition, Green for All, and others. They can be seen as a subset of Internet-mediated advocacy organizations that Karpf calls "Internet-mediated issue specialists," which share many other characteristics with issue generalists like MoveOn.org, except for their issue specialization (2012, p. 49).

One organization in particular, 350.org, has stood out for its successful leadership of a campaign to stop approval by the Obama administration of the Keystone XL project, a $7 billion pipeline that would run nearly 2,000 miles and connect Canada's oil sands to refineries near Houston, Texas and the Gulf of Mexico. Despite serious concerns from environmental groups and members of Congress about the project's impact on local ecosystems and global climate change (Casey-Lefkowitz, 2010), conventional wisdom about the pipeline's impending approval was so widespread that a poll of energy industry and policy insiders yielded a near-unanimous consensus that the president would approve the project by early 2012 at the latest (Belogolova, 2011). However, in December 2011, President Obama decided to postpone his decision until 2013.

The months preceding the president's decision saw a surge of anti-pipeline activism led by 350.org that featured many other organizations, including legacy environmental groups. In August 2011, more than 1,200 activists were arrested in front of the White House (Guarino, 2011). Two months later, an estimated 10,000 activists encircled the White House in a final attempt to convince President Obama to reject the pipeline (Graves & Suart, 2011). In February 2012, when the Senate unsuccessfully took up legislation to resurrect the pipeline, supporters of 35 advocacy organizations—including 350.org—sent more than 800,000 emails to senators urging them to reject the bill (350.org, 2012b). The pipeline's temporary demise was a welcome

development for activists after Congress' repeated failures to pass comprehensive climate legislation. Though it is very difficult to ascribe direct causal relationships between interest group mobilization and policy outcomes (Baumgartner, 2009), the grassroots mobilization against the pipeline is presumed to have been an important factor in the postponement of the Keystone XL project. If so, it is one of the more successful advocacy efforts led by a new crop of organizations created in recent years specifically to advocate for aggressive solutions to climate change.

Although persuading Congress to pass comprehensive climate legislation during a deeply polarized political era and extracting a temporarily favorable executive decision from a generally friendly president are very different political and logistical propositions, the impact that organizations like 350.org have had on the American political landscape still begs questions about these relatively new advocacy organizations that now coexist with legacy groups in the various and overlapping U.S. advocacy communities. How are these new organizations truly different from their legacy counterparts? How are they similar? How do their organizational characteristics influence their strategic use of the Internet for political communication and mobilization?

Overview of Dissertation Structure and Chapters

This dissertation will employ a research portfolio approach to examine the similarities and differences between Internet-mediated advocacy organizations and their legacy counterparts regarding three different aspects of the online advocacy process: organization, mobilization, and online infrastructure. Below I offer a brief description of the focus of each empirical chapter:

Organization

This chapter examines how organizational characteristics influence strategic Internet use. Based on in-depth interviews with online strategists and related staff members from both Internet-mediated climate specialist and legacy environmental organizations, it describes how key staff members at these organizations view political change, and the strategic role they ascribe to Internet-mediated advocacy. Among other questions, it will explores the differences and similarities in their use of the Internet for communication and mobilization, and the strategic and ideological assumptions behind their online strategies and tactics.

Mobilization

This chapter examines the strategic use of email by Internet-mediated climate advocacy and legacy environmental organizations to communicate with and mobilize their supporters around climate change and closely related issues. Drawing on well-established theories of framing and collective action repertoires, I present a quantitative content analysis of emails produced by a selection of both types of organizations to uncover whether there is a relationship between the type of organization, how they motivate their supporters to take action, and what they ask their supporters to do about the issue.

Online Infrastructure

This chapter will look at another important issue relevant to contemporary Internet-mediated advocacy: the role that the technical architectures and policies of certain private information intermediaries can play in both facilitating and hindering the work of advocacy organizations. These intermediaries "are usually private for-profit companies that do not provision actual content but rather facilitate information or financial transactions among those who provide and access content" (DeNardis, 2014, p. 154). Drawing on in-depth interviews with

organization staff members, as well as case study and policy analysis methods, this chapter will examine whether the architectures and policies deployed by online intermediaries such as search engines, social networks, app stores, and others, affect the ability of advocacy organizations to carry out their work. It will also explore how different types of advocacy organizations cope with those aspects of privatized Internet governance that affect their work.

Table 1. Overarching Research Questions by Levels of Analysis

Aspects of online advocacy	Overarching research question by level
Organization	How do the communication and mobilization strategies of Internet-mediated advocacy organizations differ from or replicate those of legacy organizations?
Mobilization	How are Internet-mediated climate organizations and legacy organizations using email to communicate about climate change? And are email strategies linked to these organizational characteristics?
Online infrastructure	Do the policies and architectures of online intermediaries, such as social networks and app stores, affect the work of advocacy organizations and campaigns, and if so, how do different types of organizations cope with this phenomenon?
Macro-level	How are Internet-mediated advocacy organizations different and similar from their legacy counterparts? What do these differences and similarities mean for policy debates over complex social problems like climate change?

A Mixed-Methods Approach

The research portfolio approach I have outlined above is appropriate because of the nature of the phenomenon under study. Digitally enabled activism is a multi-faceted phenomenon that can and has been studied from many perspectives and through multiple research methods. On its own, no individual research approach can adequately account for each of the relevant aspects of digitally enabled collective action. All of these approaches, which

focus on different aspects of the online advocacy process and employ different epistemologies and research methods, tell us something valuable about the processes and outcomes of Internet-mediated advocacy. Taking a cue from such disciplinary, epistemological, and methodological diversity, the core of this dissertation will consist of the three empirical chapters outlined above that will look at specific research questions related to Internet-mediated advocacy groups. The concluding chapter will discuss the broader research questions raised at the beginning of the study. How are Internet-mediated advocacy organizations truly different from their legacy counterparts? How are they similar? What do these findings mean for policy debates over complex social problems like climate change? How do their organizational characteristics influence their strategic use of the Internet for political communication and mobilization?

In the concluding chapter, I will draw connections between the findings in the empirical chapters, and sketch out a research agenda for myself and other scholars based on these findings and limitations. For example, do the policies and technical architectures of online intermediaries affect certain types of organizations differently than others? What factors uncovered during interviews conducted for the first empirical chapter might influence differences in how different organizations frame climate change, or what action repertoires they choose to deploy? What do the findings of the various empirical chapters tell us collectively about the state of Internet-mediated advocacy today? These are just some of the possible connections that could be drawn in the concluding chapter that would make a meaningful contribution to the study of digitally enabled advocacy.

Why Climate Change?

There are three reasons for this dissertation's focus on climate change. First, climate change is one of the most urgent challenges humanity faces today. There is an overwhelming

consensus among scientists about the potentially negative impact of climate change on human beings and ecosystems, as well as the need for changes in both individual and collective behavior in order to the avert the worst anticipated effects of this phenomenon (Houghton et al., 2001). Climate change has been linked to extreme weather events like heat waves, droughts, floods, cyclones, and wildfires that can disrupt water and food supplies, damage infrastructure, and negatively affect human health and well-being in numerous ways (IPCC, 2014). Despite widespread scientific consensus, efforts to deal with climate change at the U.S. federal and international levels have repeatedly failed or fallen short of expectations. The questions raised by this dissertation are therefore not just interesting intellectual puzzles. Studies that help us to understand how the Internet is changing the way advocacy organizations communicate and mobilize politically could yield valuable insights for the very organizations that are the objects of such studies. These insights could lead to more effective advocacy that might help address one of the most intractable problems the world faces today.

The focus is also justified methodologically by the need to account for specific characteristics and dynamics surrounding a political issue area when comparing Internet-mediated advocacy and legacy organizations. Finally, as a former online director for the 1Sky climate campaign, I have established professional relationships with many individuals in the climate change and environmental advocacy world. These relationships facilitated access to key staff members who provided insight and access to data for the empirical chapters of this project.

CHAPTER 2

LITERATURE REVIEW: A CONCEPTUAL OVERVIEW OF INTERNET-MEDIATED ADVOCACY

Internet Use and Political Participation

Political communication scholars have devoted considerable time and effort to studying the effects of Internet use on political participation and mobilization. Relying primarily on quantitative methods such as surveys, many of these scholars have found positive relationships between Internet use and political participation. In the aggregate, studies of Internet use and political engagement have found that they are positively related at the individual level (Boulianne, 2009). For example, scholars have found positive relationships between voters' online news consumption and their likelihood of voting in a presidential election, and between frequency of Internet use and other forms of political participation (Borge & Cardenal, 2011; Mossberger, Tolbert, & McNeal, 2008).

This positive relationship seems to cut across different types of Internet use as well as national boundaries. For example, blog readership in America has been positively associated with a range of both off- and online political activities. (Gil de Zuniga, Veenstra, Vraga, & Shah, 2010). Similarly, online news use has been positively related to both face-to-face and online political discussion about the Iraq War; by comparison, newspaper use has been only positively associated with face-to-face political discussion, while television use seems unrelated (Nah, Veenstra, & Shah, 2006). In Colombia, researchers found that informational use of the Internet is related to online political expression, which in turn leads to a variety of online and offline political participatory acts (Rojas & Puig-i-Abril, 2009). In their study of the use of Web 2.0 technologies during the United Kingdom's 2010 general election, Lilleker and Jackson (2010) found that voters had used these technologies widely to comment on the campaign and key

events—particularly the televised debates—as well as on the resulting hung parliament, and how the parties should respond. The relationship between Internet use and political participation seems particularly strong among the young, as demonstrated in a study of Internet use among youth in the Netherlands, and compares favorably with use of traditional media (Bakker & de Vreese, 2011).

These are just some examples of an extensive literature that has yielded similar findings. Despite the often valid normative concerns that some scholars and public intellectuals have raised about the Internet's influence on political participation and public discourse (Davis, 2010; Gladwell, 2010; Hindman, 2009; Sunstein, 2001), the valuable empirical work that political communication scholars have done shows a largely positive relationship between Internet use and political participation.

As useful and illuminating as this work has been, it has inevitably paid less attention to the organizational and social movement-specific factors and processes that shape forms of online participation and collective action. Nor have these studies considered the role of online infrastructure and information intermediaries, such as social networking sites and mobile apps—influences that likely both enable and constrain organizational activities and impacts (DeNardis, 2014, pp. 153-172; Snow, 2001, p. 10). The study of the former has been taken up largely by social movement and Internet studies scholars, along with some political scientists and communication scholars (Bennett, 2003; Bennett, Christian, & Terri, 2008; Bennett & Segerberg, 2012; Bimber, Stohl, & Flanagin, 2009; Chadwick, 2007; Eaton, 2010; Karpf, 2010, 2012; Merry, 2010, 2012), while the latter has been studied mostly by science and technology studies (STS) and cyberlaw scholars (Benkler, 2011; DeNardis, in press; MacKinnon, 2012; Youmans & York, 2012).

The Organizational Layer of Online Collective Action

One of the most important developments in American political advocacy has been the rise of Internet-mediated advocacy organizations (Karpf, 2012). These groups display a hybrid mobilization model most commonly associated with MoveOn.org, which "sometimes behaves like an interest group, sometimes like a social movement, sometimes like the wing of a traditional party during an election campaign" (Chadwick, 2007, p. 284). This model stands in contrast with the "armchair activism" model exhibited by organizations founded during the U.S. advocacy group boom of the late '60s-early '70s that encouraged individual donations to support expert lobbying in Washington, D.C., or low-cost activities like letter-writing, but little else (Skocpol, 2003).

Karpf divides the new breed of Internet-mediated organization into three categories: issue generalists, online communities of interest, and neo-federated organizations. Issue generalists communicate primarily via email and maintain sparse websites (e.g., MoveOn.org); online communities of interests are web-based gatherings of individuals that contribute content to these communities (e.g., the progressive community site Daily Kos); and neo-federated organizations retain a semblance of the chapter-based structure of traditional federated organizations, but focus on offering online tools for offline action (e.g., Democracy for America, founded by former presidential candidate Howard Dean in 2004). Karpf has also addressed some of the organizations featured in this study, referring to them as "Internet-mediated issue specialists," which share many other characteristics with issue generalists except for their issue specialization (2012, p. 49). At the core of Karpf's categorical distinction is the level of engagement that each of type of organization fosters among supporters: Internet-mediated organizations are presumed to foster greater level of engagement than armchair activism legacy organizations. Although

different in important ways, this argument somewhat mirrors ongoing arguments regarding the Internet's relationship to contemporary collective action.

Table 2. Core Features of Internet-Mediated vs. Legacy Organizations

Core Features	Legacy (1970s-early 2000s)	Internet-Mediated (2000-present)
Membership Type	Issue-based	Event-based
Typical Activities	Mailing checks, writing letters, signing petitions (Armchair activism)	Attending local meetups, voting online, Submitting user-generated content
Fundraising Source	Prospect direct mail, patron donors, grants	Online appeals, patron donors, grants
Dominant Organiztion Type	Single-Issue Professional Advocacy Organizations	Internet-Mediated Issue Generalists

Note. Adapted from The MoveOn Effect: The Unexpected Transformation of American Political Advocacy (p. 26) by D. Karpf, 2012, New York: Oxford University Press. Copyright © 2012 by Oxford University Press, Inc.

Broadly speaking, one argument states that Internet use merely "supersizes" the practice of activism. For example, online petitions make the process of gathering signatures for a petition and delivering it to decision makers more efficient and cost-effective than the analog version of this tactic, but it does not fundamentally change the tactic—it "supersizes" the petitioning process (Earl & Kimport, 2011).

Others argue that digital technologies can fundamentally change the collective action process—what Earl and Kimport (2011) call "theory 2.0" effects. Seemingly spontaneous flash mobs and similar instances of what Clay Shirky (2008) has called "organizing without organizations" would be typical examples of this effect. Bennett and Segerberg (2012) have alternatively referred to this phenomenon as the "logic of connective action," which differs from the more familiar logic of collective action (Olson, 1971) in important ways.

Earl and Kimport (2011) explain this theoretical divergence by arguing that when the Internet's unique technological attributes are leveraged, theory 2.0 effects follow, but when these attributes are barely leveraged, only supersizing occurs. We would expect these effects to also coincide with whether an organization or campaign pre- or post-dates wide adoption of the Internet—in other words, whether they are "legacy" or "web-native" organizations (DiMaggio, Hargittai, Neuman, & Robinson, 2001). The distinction Karpf makes between Internet-mediated and legacy groups does not rest on the concept of affordances, but on the level of reliance of the former to facilitate both internal and external organization, and on the level of engagement each type of group seeks from supporters.

But is not clear how far Karpf's ideal types extend to issue specialist organizations. Karpf makes organizational distinctions between Internet-mediated organizations and their legacy counterparts that at first glance do not seem to extend to issue-based advocacy communities, or have simply been dissipated by the passage of time and the spread of best practices. For example, Karpf has highlighted the difference in fundraising models between Internet-mediated organizations, which rely on "a fluid fundraising model based on targeted, timely action appeals" (2012, p. 6), and legacy organizations that rely on membership-based fundraising models or large grants. But the climate-specific organizations profiled in this study do not rely on this targeted appeal model—and even if they did, the size of their email lists do not match the scale that allows the 10 million member MoveOn.org to rely on such appeals to fund its operations.

When it comes to specific advocacy communities, such as the environmental and climate communities featured in this study, the most useful areas to look for distinctions may be the levels of engagement that they try to foster among supporters, and how they communicate about issues. Both of these can be explained by a combination of the *political opportunities* they see

within the relevant public arenas, such as Congress, the presidency, or federal agencies, and the *theories of democratic change* they embrace.

Social Movement Theory and the Political Process

One of the most influential theoretical strains in social movements literature is actually a synthesis of various strains referred to as *political process theory* (PPT). According to McAdam, McCarthy, and Zald (1996), "most political movements and revolutions are set in motion by social changes that render the established political order more vulnerable or receptive to challenge" (p. 8). In other words, structural changes precede the emergence of social mobilization. Tarrow (2011) identifies four specific dimensions of political systems that impact the structuring of collective action: 1) The relative openness or closure of the institutionalized political system; 2) the stability of that broad set of elite alignments that typically undergird a polity; 3) the presence of elite allies; and 4) the state's capacity and propensity for repression. Given the broadly democratic nature of the American political system and its low propensity for outright repression, it is the first three dimensions that most closely relate to the evolution of U.S. climate change advocacy.

But political process theory can only partially explain the emergence of new, climate-centered advocacy organizations in the U.S. The openness of the American political system would certainly bode well for this development, as well as the stability of elite arrangements that undergird American society and the presence of elite allies concerned about climate change and eager for the enactment of ambitious solutions. But citizens concerned about climate change have had ready-made mobilizing structures (Jenkins, 1983; McCarthy & Zald, 1977) available to them since the emergence of the issue as a social problem: the various organizations that constitute the national environmental advocacy community, which includes all the environmental

organizations profiled in this study: the League of Conservation Voters (LCV), the Environmental Defense Fund (EDF), Sierra Club, the Natural Resources Defense Council (NRDC), and Greenpeace USA (Bosso, 2005).

My own research into this topic in preparation for this study indicates a dissatisfaction with the available vehicles for climate-centered mobilization, and conviction by activists that it would take more than "politics as usual" to enact satisfactory climate solutions (Hestres, 2014). Paradoxically, the political opportunity structures related to climate change in the U.S. may have led to the emergence of new organizations precisely because of *dissatisfaction* with the opportunities available through the system to deal with climate change. Although the American political system has provided multiple openings for climate advocacy, it has not proved particularly responsive: seven climate change bills have been introduced in Congress since 2003, but only one was approved by the House of Representatives, and all seven have died in the Senate (Layzer, 2011, pp. 368-377). In other words, the level of openness of the American political system does not fully explain the emergence of these new organizations, but it can help explain the level of engagement that different types of organizations try to elicit from supporters. Given the broad differences between environmental and climate advocacy organizations in terms of resources, longevity, and access to key U.S. policy-makers, we would expect climate organizations to deploy action repertoires that emphasize outsider, grassroots-oriented repertoires, while environmental groups would deploy elite-oriented repertoires that play to their well-established organizations strengths.

Models of Democratic Participation and the Public Sphere

Explanations of the role of public opinion and the public's participation in policy debates can vary greatly depending on which view of democracy one adopts. The public sphere is

generally conceived as the social space in which different opinions are expressed, problems of general concern are discussed, and collective solutions are developed (Habermas, 1991). Different models of issue advocacy can also influence the relationship between public sphere models and participation. Price (2008) describes four models of the public sphere that could potentially apply to the U.S. at various points and for various issues:

Competitive Elitism

Under this model, the participation of citizens is limited to expressing their opinion through the ballot box. Otherwise, public opinion and decision-making is left to policy-makers, bureaucrats, experts and other elites. Public opinion becomes a matter of elites trying to convince each other of the rightness of their policy positions. This model tends to be especially prevalent for technically complex policy issues, such as banking regulation, technology policy making, and climate change.

Legal/Neoliberal

This view amounts to a form of libertarianism that sees state efforts to alleviate social inequalities as "inevitably coercive and likely to come at the expense of individual liberty" (p. 15). The wave of governmental deregulation the U.S. has experienced for the past 30 years shows this model has significant support, but it is not very relevant to progressive issue advocacy, which tends to favor government intervention.

Neo-Pluralist

This model emphasizes the role of intermediary interest groups as well as "issue publics"—smaller segments of the population that have a much higher level of interest and policy expertise on particular issues. The larger the issue public is, the greater the likelihood that

its policy preferences will be adopted. These issue publics guide the opinions of others when these issues are debated, thus creating a division of labor among the population that keeps decision-making relatively anchored to popular wishes.

Participatory

This model emphasizes vigorous citizen participation, discussion and engagement in the public sphere. Drawing heavily from the work of Jürgen Habermas (1991) on the notion of the public sphere, it argues that mass media and public opinion polls lull the citizenry into treating politics as a spectator sport, and that the antidote lies in providing spaces for citizens to discuss public issues and come to consensus through these dialogues.

These are ideal types, of course: no advocacy organization adheres strictly to a particular model of the public sphere or theory of change. In fact, as we will see in the empirical chapters, some organizations display considerable hybridity consistent with Chadwick's (2007) work. Nevertheless, we would expect that organizations whose theory of change most clearly aligns with a combination of the competitive elitism and neo-pluralist models would communicate differently with their supporters about climate change than those organizations that embrace more closely a combination of the neo-pluralist and participatory models.

To establish the relationships between these organizations and their communicative and mobilization practices, I will rely on *framing*, a concept common to both communication and social movement studies, and *action repertoires*, a concept common to both traditional and online social movement scholarship.

Framing Climate Change

Framing is one of the most fruitful theoretical areas for branches of communication studies, political science and sociology concerned with activism. Conceptually, frames are

understood to be “schemata of interpretation” that allow individuals to “locate, perceive, identify, and label” issues and topics within their own personal context (Goffman, 1974, p. 21). Entman (1993) argues that “to frame is to select some aspects of a perceived reality and make them more salient in a communication text” (p. 52). He also suggests that framing consists of four elements, that may occur individually, or concurrently including 1) problem definition, 2) diagnosing causes, 3) passing moral judgment(s), and/or 4) treatment recommendation.

How climate change is framed is directly related to public attitudes about the issue because frames must be tailored for both their target audience and the task the frame must accomplish. Audience segmentation analyses on attitudes about climate change have yielded six audience segments known as the Six Americas of Climate Change: The Alarmed (16 percent of the population), the Concerned (27 percent), the Cautious (23 percent), the Disengaged (5 percent), Doubtful (12 percent) and the Dismissive (15 percent) (Leiserowitz, Maibach, Roser-Renouf, Feinberg, & Rosenthal, 2014).

Given that even the most affluent climate or environmental organizations do not have unlimited resources, we would expect all organizations to focus the bulk of their communication efforts to mobilizing the Alarmed, which is most engaged in the issue of global warming. They are convinced it is happening, that it is caused by human activity, and that it is an urgent threat. The Alarmed are already making changes in their own lives and support an aggressive national response. They tend to be politically liberal, more often female, older middle-aged (55-64 years old), well-educated, and upper income. Unfortunately, only a quarter of them have contacted a public official regarding the issue (Leiserowitz et al., 2014). This audience segment essentially constitutes an issue public around climate change. It is in the interest of climate advocates and

other stakeholders to find ways to mobilize this issue public, while also moving more members of the Concerned segment into the Alarmed segment.

Although climate change can be framed in many different ways (see Nisbet, 2009, p. 18 for an exhaustive typology of frames applicable to climate), environmental and climate communicators have circumscribed their framing of the issue to a few options (Moser & Dilling, 2011) that we can define succinctly from Nisbet's typology: *catastrophic (a.k.a. Pandora's box)***,** which talks about a need for precaution or action in face of possible catastrophe and out-of-control consequences or, alternatively, as fatalism, where there is no way to avoid the consequences or chosen path; and *public accountability and governance,* which portrays climate policy being either in the public interest or serving special interests, emphasizing issues of control, transparency, participation, responsiveness, or ownership, or as a debate over proper use of science and expertise in decision making. In their critique of contemporary environmentalism, however, Nordhaus and Shellenberger (2007) propose an alternative framing, which in Nisbet's typology is defined as *economic development and competitiveness.* This frame casts climate action as an economic investment, and talks about market benefit or risk, or about local, national, or global competitiveness.

Some social scientists have raised the possibility of emphasizing the *public health* aspects of climate change as a potentially more successful framing strategy (Maibach, Nisbet, Baldwin, Akerlof, & Diao, 2010). Meanwhile, many prominent figures in the national security establishment, including the head of the US Navy's Pacific fleet, have declared climate change a top national security threat—a development that raises another, potentially potent framing strategy for climate advocates (Colman, 2013).

But when it comes to direct communication with supporters, who presumably already belong to the Alarmed climate issue public, the use for such framing diversity narrows considerably. Snow and Benford (1988) identify three core framing tasks that movement actors must achieve to mobilize supporters: diagnostic framing, which identifies a problem and attributes blame; prognostic framing, which proposes solutions to the problem; and motivational framing, which elaborates a call to action that goes beyond diagnosis and prognosis. Motivational framing is the framing task most relevant to this study. Because the audience to which the online communications under study here has already arrived at a strong consensus on climate change, prognostic and diagnostic framing efforts aimed at "consensus mobilization"—the process through which a social movement tries to gather support for its positions—are hardly necessary (Klandermans, 1984). Instead, groups are free to focus on motivational framing in order to achieve "action mobilization," which is the process by which an organization in a social movement rallies supporters to participate" (Klandermans, 1984).

In subsequent chapters, I will explore whether there are significant differences in use of motivational framing between different types of organizations, and whether these choices relate to any theories of change detected in this study.

Framing and Online Advocacy Communication

Much has been written on framing in relation to media effects and individual-level framing effects (Scheufele, 1999), but there is a gap of scholarship related to how advocacy organizations deploy frames in online (or even offline) communications to mobilize political action. This is not surprising given that, according to Kosicki and Pan (1996), social movement organizations comprise an area of study that historically has not been well integrated into media studies. Collins and Zoch (2006) analyzed the use of framing in activist websites, but their study

did not focus on political mobilization as understood in the present study. Some studies, like Yao's (2009) study of Sierra Club newsletters, look at how such communications affect media frames. Eaton's (2010) study of MoveOn.org's use of email to "manufacture" community online looked at how it deployed "identity framing" to define itself to insiders and outsiders, but does not offer the comparative perspective as this study provides, or touch on motivational framing.

Of particular relevance to this dissertation is the work of Merry (2010, 2012) on the communicative practices of environmental advocacy organizations. In her studies, Merry challenges the notions that interest groups use emotional rhetoric indiscriminately across media, and that this practice is closely related to organizational maintenance, particularly fundraising. After conducting automated text analyses of environmental group communications through emails, print newsletters, websites, press releases, direct mail, and congressional testimonies, as well as a hand-coded case study of climate communications, she found that environmental groups did not use emotional rhetoric indiscriminately, that they varied the complexity of their communications according to the media in question, and that organizational characteristics like financial resources (e.g., budget size and expenditures) and membership status (membership vs. non-membership organizations) were not correlated with the use of emotional rhetoric.

While Merry's ongoing empirical work on the communicative practices of environmental interest groups adds nuance to our knowledge and understanding of these groups, this study will add further nuance in several ways. First, it differentiates between national groups with broadly environmental missions and groups that only advocate around climate change. (In fact, most of the climate-only groups profiled in this dissertation did not even exists at the time Merry's latest data was originally created in 2006-2007.) Second, it will identify frames pervading the email communications of both types of organizations—an approach that should reveal differences that

might not have surfaced through Merry's rhetorical analysis, not just between environmental and climate groups but *within* both types of groups.

Online Action Repertoires

In analyzing how the organizations profiled in this study communicate online about climate change, I also take into consideration the collective action repertoires they are deploying—in other words, what they are asking their supporters to do about the issue. The concept was originally put forward by Charles Tilly (1984), who referred to these "repertoires of collective action" as "the set of means that are effectively available to a given set of people" (p. 299) and that they use to make claims upon society or segments of it.

More recently, Karpf's (2010) examination of the types of actions requested by progressive organizations via email coded for actions such as sending emails to Congress, making calls to Congress, emailing a government agency, signing a petition, emailing the president, calling the White House, attending or hosting a local event, and other similar actions. The empirical usefulness of this straightforward coding can be complemented by the typological work of Van Laer and Van Aelst (2010). Drawing inspiration from social movement scholarship on action repertoires (Tarrow, 2011; Tilly, 1984) and high-risk civil rights era social activism (McAdam, 1986), Van Laer and Van Aelst's typology of the "new" repertoire of collective action shows the possibilities the Internet has made available to social movements. The typology distinguishes between two types of action:

- "Real" actions facilitated by the Internet (demonstrations, donations, sit-ins); and
- "Virtual," Internet-based actions (online petitions, emails, hacktivism).

The typology also contains dimensions that classify actions as "high" or "low" threshold that reflect a hierarchy of political participation established by other scholars. "High threshold"

actions involve greater effort, cost, and potential risk, while "low threshold" actions involve lower levels of the same. Since the organizations profiled in this study mostly do not conform to a "logic of connective action" (Bennett & Segerberg, 2012) that relies heavily on Internet-based actions (nearly all actions coded in the content analysis were Internet-supported), my focus will be on the threshold dimension of this typology. In Chapter 4, I will explore the action repertoires that different types of organizations deploy, and their potential connections with any theories of change detected in this study.

Online Infrastructure: Information Intermediaries and Advocacy

Regardless of how particular advocacy groups take advantage of the Internet's technological capabilities, there are also aspects of the Internet rooted in its architecture and governance that can affect the work of these important social actors.

The Internet is perhaps the fullest expression of an increasingly diffuse international order. Just as nation-states increasingly share the stage with non-state actors, many aspects of Internet governance have historically not been the exclusive purview of governments but of new transnational institutions and corporations (MacKinnon, 2012). Although Internet governance is an emerging field with evolving boundaries, we can define it as "the collective rules, procedures, and related programs intended to shape social actors' expectations, practices, and interactions concerning Internet infrastructure, transactions and content" (Drake, 2004).

This governance includes the development and implementation of protocols and policies, all of which embody certain values. A large body of literature argues that technologies tend to embody values and create legal regimes (Lessig, 2006; Winner, 1980; Zittrain, 2008). In other words, the Internet's architecture "is not external to politics and culture but, rather, deeply

embeds the values and policy decisions that ultimately structure how we access information, how innovation will proceed, and how we exercise individual freedom online" (DeNardis, 2012, p. 1).

In recent years, a new crop of private information intermediaries have become virtually synonymous with the contemporary Internet. *Private information intermediaries* can be defined as "private systems that do not provision actual content but rather facilitate information or financial transactions among those who provide and access content" (DeNardis, 2014, p. 154). They include social networking services like Facebook, search engines such as Google, mobile app stores like Apple's, user-generated recommendation sites like Yelp, location-based services like Foursquare, and similar online services. These relatively new and increasingly popular online intermediaries undermine the "end-to-end principle" of network architecture (Saltzer, Reed, & Clark 1984). This principle recommends that a network's "intelligence" be located at the top of a layered system — at its "ends," where users contribute information and applications onto the network—and that the communications protocols themselves be as simple as possible (Lemley & Lessig, 2000). The proliferation of private information intermediaries undermines this principle by moving network intelligence and governance further away from the end points and towards the middle. In many cases, they create "walled gardens" (Zittrain, 2008) that can put the ability of advocacy organizations to communicate and mobilize effectively under the control of corporate policies and architectures embodying values at odds with those of advocacy groups.

While there has been much research on how the policies and architectures of private intermediaries can affect individuals (boyd, 2008; Butler, McCann, & Thomas, 2011; Hull, Lipford, & Latulipe, 2011; Waters & Ackerman, 2011), their effect on advocacy organizations is less well understood. Given the expanding governance role that private information intermediaries play on the Internet, and the vital role that advocacy organizations fulfill in the

U.S., it is important to gain a firmer understanding of the effects that these intermediaries can have on the work of these groups, and how they can deal most effectively with those effects.

This is particularly important given that corporate priorities often diverge from those of society as a whole. As MacKinnon says:

> Many corporate executives argue that human rights are neither their concern nor their responsibility: the main obligation of any business, they point out, is to maximize profit and investor returns. But what kind of world are they helping to create, and should that not concern them? (MacKinnon, 2012, p. xxiii)

To human rights we may add environmental protection, labor rights, health care, nutrition, women's rights, climate change, religious freedom, and a number of other concerns that usually fall outside the purview of corporate missions and goals.

This is not to say that advocates have not benefitted from online corporate innovation—in fact, they have done so enormously. This is particularly the case at the application layer of the Internet, which functions on the protocols that govern our most common online interactions, such as email, social networking, video chat, and others. A survey of more than 100 US advocacy organizations revealed that groups used social media to communicate with their supporters almost every day (Obar, Zube, & Lampe, 2012). Similarly, social media was an important organizing tool for protesters during the so-called Arab Spring (Khondker, 2011).

Advocacy organizations are increasingly turning to online intermediaries to communicate, mobilize support, and support those first two core functions, such as fundraising and administration, reaping great benefits from this trend in the process. But the growing Internet governance role of private information intermediaries can sometimes have a negative impact on the work of these groups. Below I provide a few examples to illustrate this argument.

Financial Intermediaries

Advocacy organizations are increasingly fundraising via the Internet to support their campaigns and general operations. Consequently, the financial intermediaries that process these transactions for advocacy groups have great influence on their ability to fundraise online. WikiLeaks, the online portal dedicated to the anonymous posting of leaked information from governments, corporations and other powerful institutions, has become the canonical case to illustrate the sway of financial intermediaries.

In 2010, WikiLeaks released more than 1,900 cables from US embassies to selected media organizations like *The New York Times* and *Le Monde.* As a result, Vice President Joe Biden called its founder, Julian Assange, a "high-tech terrorist," and Senate Homeland Security Committee Chairman Joe Lieberman suggested that companies should deny WikiLeaks their services.

Benkler (2011) details how financial intermediaries like MasterCard, Visa, and PayPal, voluntarily cut off payment services to WikiLeaks. According to Benkler, although there was "no clear evidence that these acts were done at the direction of a government official with authority to coerce it," the financial intermediaries and other corporations that cut off vital services to WikiLeaks likely acted out of a desire to not be associated with "undesirables" (p. 3). Given that advocacy organizations often make claims that conflict with the social, cultural, political, or economic interests or values of other constituencies and groups (Andrews & Edwards, 2004), it is easy to see how an advocacy group could find itself being regarded as undesirable as WikiLeaks, and become vulnerable to the policies of financial intermediaries.

Social Media Platforms

With more than one billion monthly active members, Facebook is perhaps the best example of the prominence of social networks in our current online ecosystem (Fowler, 2012). Facebook is also an important communication and mobilization tool for advocacy groups and nonprofits. According to an annual report on social media use co-published by the Nonprofit Technology Network (2012a), 98% of U.S. nonprofits have a Facebook presence. This confirms findings by Obar et al. (2012) regarding social media use among nonprofits. As of October 2012, the official Nonprofits on Facebook page had more than 1.4 million likes (Facebook, 2014). Having a Facebook presence has become a requirement for almost all advocacy groups.

However, just as some of Facebook's architectures and policies raise concerns about individual rights, including the right to privacy (boyd, 2008), they also raise concerns for advocacy organizations. One example is the Facebook Groups feature, which allows individuals and organizations to set up groups where those with shared interests can post content and hold discussions. Although advocacy organizations usually do not incur costs for using this feature, they do spend many staff and volunteer hours curating these groups and managing the communities that emerge within them. The membership lists and content that is posted in these groups are valuable assets to organizations. But at the moment, there is no easy way for nonprofits to export this content or the membership lists out of Facebook. Facebook does not even provide a rudimentary data export tool for groups, as it does for individual profiles. The content and recruitment that advocacy groups have cultivated is trapped within the walled garden of Facebook.

Even the intellectual property rights of this content posted by organizations is under question. Although Facebook's "Statement of Rights and Responsibilities" (Facebook, 2012)

states that "[y]ou own all of the content and information you post on Facebook," the statement also says:

> For content that is covered by intellectual property rights, like photos and videos (IP content), you specifically give us the following permission, subject to your privacy and application settings: you grant us a non-exclusive, transferable, sub-licensable, royalty-free, worldwide license to use any IP content that you post on or in connection with Facebook (IP License).

Since no more than 8 percent of users typically read terms of service agreements in full before accepting them (Böhme & Köpsell, 2010), it is likely that most advocacy organizations are unaware of the ambiguous legal state of the content they have posted to various social media platforms. In addition, terms of service (TOS) agreements for many types of online intermediaries change constantly. The combination of architectural barriers and ambiguous legal status of content shared through certain social media intermediaries represent a challenge to effective use of these platforms by advocacy groups.

App Stores

Apps for mobile and portable devices like smart phones and tablets are one of the most popular ways to interact with content, much of it online. A couple of statistics about Apple's app store should suffice to make this point. At the launch event for the third generation iPad, Apple CEO Tim Cook boasted of having nearly 600,000 apps available in the app store, and marveled at the fact that, just a few days earlier, a customer in China had triggered the 25 billionth app download (MacWorld, 2012).

The Apple app store embodies private governance through both architecture and policy. In order to distribute their apps to iOS devices lawfully, developers must submit their apps for approval to Apple, which then decides whether or not to make them available through it centralized app store. Developers must also comply with the App Store Review Guidelines

(2010)—a document that outlines specific technical and content-related infractions for which an app may be rejected.

The content portion of Apple's guidelines are much more ambiguous than its technical guidelines. This ambiguity gives Apple maximum flexibility in accepting or rejecting apps (Hestres, 2013). In addition, Apple has proved willing to reverse its app approval decisions in the face of public pressure. In 2010, Apple approved an app submitted by the Manhattan Declaration, a group opposed to same-sex marriage. It later revoked the approval, however, after a petition surfaced on Change.org demanding that the company take down the app (Hestres, 2013). This constitutes a double form of privatized censorship, in that Apple has prevented both the Manhattan Declaration and its potential users from expressing themselves through this app.

Search Engines

The search engine has become one of the primary ways through which we gain access to content on the Web. Early versions of search engines used to show all users the same results for a particular search query, based on the calculations on one-size-fits-all algorithms such as Google's PageRank. This all changed in 2009, when Google announced that it would begin personalizing searches for everyone. Most search engines now operate this way. As a result, all of us will most likely see very different results when we search for the same terms on Google, Bing, and other search engines (Pariser, 2011). The trend towards personalization that is sweeping the Web means that each of us is now much less likely to encounter information online that disturbs or challenges our beliefs. Actors outside the commercial world have also embraced this trend. Presidential campaigns are now taking advantage of third-party information resellers to match visitors to their campaign websites to ostensibly relevant content when they visit other websites (Singer & Duhigg, 2012).

The implications of this trend—a strategy increasingly embedded in the Web's architecture thanks to private information intermediaries—for advocacy organizations are not hard to discern. Since the main function of advocacy organizations is to "make public interest claims either promoting or resisting social change" (Andrews & Edwards, 2004), they must bring these claims to the attention of relevant actors, including the general public. The growing trend towards personalization on the Web will make it increasingly difficult for advocacy organizations to do this, to the detriment of the causes for which they advocate. The processes of agenda setting, gaining access to decision-making arenas, achieving favorable policies, monitoring and shaping implementation, and shifting the long-term priorities and resources of political institutions, will become harder for these groups if they cannot even gain attention for their causes online because of the growing trend of online personalization.

Specialized and Non-Specialized Advocacy Intermediaries

Virtually all advocacy organizations depend on information intermediaries to carry out their missions. But there is useful conceptual distinction to be made when discussing the online tools upon which advocacy organizations rely. The distinction boils down to the level of control that organizations have over their use of a particular tool, and how much agency they can exercise when the technical architectures or policies deployed by information intermediaries affect their work. In Chapter 5, I will discuss two types of intermediaries: *specialized advocacy tools* or *non-specialized advocacy tools*.

Specialized advocacy tools refers to intermediaries that have been conceived mainly to conduct advocacy, or can be customized for this purpose, and over which advocacy organizations have a comparatively high degree of control and agency. These include web hosting services, constituent relationship management (CRM) systems, content management

systems (CMS), advocacy platforms that provide mass email capabilities and ways to communicate with decision makers (petitions, emails, letters to the editor, etc.), and other related tools. Whether open-source or proprietary, organizations have a comparatively high degree of control over their use of these intermediaries. Although less well known than social networks or search engines, these intermediaries, along with better-known ones like social networking sites, have become key tools of contemporary issue advocacy.

Non-specialized advocacy tools refers to intermediaries that organizations also use to conduct issue advocacy but have *not* been conceived mainly for this purpose, and over which organizations have a comparatively low degree of control and agency. These include social networking sites, search engines, online image or video sharing sites, and others. Advocacy organizations have a much lower degree of control and agency over their use of popular intermediaries like Facebook or Twitter. Advocacy organizations can create Facebook profiles, Twitter accounts, Tumblr blogs, Pinterest boards, and similar online intermediary presences, free of charge. This gains them access to widely-used social networking sites with sophisticated features that can increase supporter recruitment, action rates, and fundraising. In exchange, the content and community interactions they co-generate with their supporters contribute to the "stickiness" of these intermediaries, and add further data to that being collected by the likes of Facebook, Twitter, and Google about their users, which is monetized through advertising and other channels. Because these intermediaries provide access at no direct cost, cater to a much wider audience of individuals rather than organizations, and embrace business models that revolve around monetizing user data, advocacy groups cannot count on the same level of responsiveness to their concerns from these companies. While the categories I have described

may not encompass every single specialized or non-specialized intermediary that organizations use for advocacy, they are sufficiently distinct to be useful.

Unlike the two empirical chapters that focus on organizational traits, communicative practices, and online action repertoires, for which I have put forward certain hypothesis, the chapter that focuses on online infrastructure will feature a largely inductive, theory-generating approach. The principal research question of this chapter is: do the policies and technical architectures of online information intermediaries affect the work of advocacy organizations and campaigns, and if so, how do different types of organizations cope with this phenomenon? It is possible, for example, that large legacy organizations are more easily able to cope with negative aspects of privatized Internet governance. It is equally possible, however, that the flexibility usually associated with smaller, Internet-mediated organizations enable them to cope more easily with these negative impacts. Given the relative newness of this line of inquiry, it is best to take an inductive approach at this point.

CHAPTER 3

ORGANIZATION: INTERNET-MEDIATED ADVOCACY FROM THE STRATEGIST'S PERSPECTIVE

Introduction

In the previous chapter, I proposed that a combination of the political opportunities available to environmental and climate advocacy organizations, along with the theories of democratic change they embrace, should influence their strategic use of the Internet. It is not difficult to determine the differences in political opportunities available to climate/web-native and environmental/legacy organizations. Due to their longevity and resources, environmental groups should have greater access to the American political system, and therefore deploy online strategies that play to those strengths. Because of their relative newness, outsider status, and lower levels of resources, climate organizations would resort to online strategies that reflect their status. But what of the theories of change? Do these conform neatly to the organizational categories at the center of this project?

This chapter explores this question through a series of in-depth interviews with online strategists and closely related staffers at several environmental and climate change advocacy organizations. Among other findings, interviews revealed broadly shared theories of change among climate change advocacy organizations (i.e. web-native organizations), but also a heterogeneous mix of such theories among environmental (i.e. legacy) organizations. They also revealed connections between the organizations' theories of change, their target audiences, and their action repertoire preferences. This chapter provides context for Chapter 4, which relies on a content analysis of advocacy emails produced by most of these organizations to determine what motivational frames they deploy and what they ask their supporters to do about climate change.

Research Method

I chose my interview subjects because of the key roles they have played in one of three organizational areas: online communications, field organization, and top-level leadership. At least one interview was obtained with either a current or recent staff member from each organization, and in almost all cases I was able to secure interviews with multiple staffers. I conducted interviews with three climate change organizations: 350.org, the 1Sky campaign, and the Energy Action Coalition; and four environmental organizations: the Environmental Defense Fund, Greenpeace USA, Sierra Club, and the Natural Resources Defense Council. No current or former staff member from Climate Reality responded in a timely manner to several interview requests. Despite repeated requests, the League of Conservation Voters (LCV) refused to grant interviews for this project due to a policy of not discussing strategy with outside parties.

The organizations featured in this and the remaining chapters were chosen based on three criteria: their representativeness of their respective advocacy communities; the level of access they were likely to provide to their staffers; and the presence of data from these organizations within the Membership Communications Project (MCP) data set, which contains emails sent by these organizations (except the Energy Action Coalition) since January 2010 and underpins the content analysis featured in the next chapter.

Table 3. Interviews by Organization and Type

Organization Type	Organization	Number of Interviews
Climate change/Web-native	350.org	3
	1Sky campaign	3
	Energy Action Coalition	1
Environmental/legacy	Environmental Defense Fund	3
	Greenpeace USA	2
	Sierra Club	2
	Natural Resources Defense Council	2

Respondents were asked open-ended questions about their organizations' strategic assumptions and aims, their communication and mobilization objectives, and the tactics they use to achieve their strategic ends. Interviews were conducted between April-June 2012, and October 2013-January 2014. The questionnaire that produced data for both this and Chapter 4 is available as Appendix A of this dissertation.

Organizational Profiles

In order to provide some context for the data gathered through these interviews, I have summarized each organization's mission, history, organizational resources, and issue areas where they have focused their advocacy.

1Sky

The 1Sky campaign was created to advance "[b]old federal action in the United States that can anchor the global movement to stop global warming and simultaneously generate millions of new jobs and economic security" (1Sky, 2008). It had three specific and ambitious policy goals: a) reducing global warming pollution at least 25 percent below 1990 levels by 2020 and at least 80 percent below 1990 levels by 2050; b) achieving a moratorium on the construction of new coal power plants; and c) creating five million green jobs . During its three years of activity, 1Sky averaged 15 full-time staff members and a yearly income of $2.36 million, raised mostly from foundations like the Rockefeller Brothers Fund, and large individual donations. During the same period, the campaign spent an average of 59 percent of its funds in field and Internet operations (1Sky, 2008, 2009, 2010).

The campaign devoted its efforts almost exclusively to various aspects of climate change advocacy and related issues. These included efforts to pass a comprehensive climate change and clean energy federal law in 2009-10; defending the Environmental Protection Agency's (EPA)

authority to regulate coal power plants under the Clean Air Act and supporting closely related regulatory actions; supporting the UN Framework Conventions on Climate Change in Copenhagen and Cancún; and supporting community-based efforts to stop or regulate environmental practices closely related to climate pollution, including mountaintop removal coal mining, coal ash storage, and hydraulic fracturing, also known as "fracking." Because of the strong overlap in membership, leadership, funding sources, and strategic goals, the campaign merged with 350.org in April 2011 (Hestres, 2014).

350.org

Environmental writer and activist Bill McKibben and a cohort of six students from Vermont's Middlebury College founded 350.org after the Step It Up actions of 2007 (see Fisher & Boekkooi, 2010 for more background on Step It Up) in order to build "a global grassroots movement to solve the climate crisis" (350.org, n.d.-a). Although 350.org has never spelled out a detailed policy platform—instead it endorsed the 1Sky platform, along with more than 600 other organizations—the very name of the group conveys policy ambition. The organization took its name from a study co-authored by Dr. James Hansen, then-director of NASA's Goddard Institute for Space Studies and a renowned climate scientist and activist. The authors argued that CO^2 levels in the atmosphere would need to be reduced from their (at the time) current level of 385 parts per million (ppm) to at most 350 ppm to avert the worst effects of climate change (Hansen et al., 2008). Co-founder McKibben recalls that the group chose its name "reasoning that we wanted to work all over the world…and that Arabic numerals crossed linguistic boundaries" (McKibben, 2013, loc. 164). 350.org's staff consisted of 29 US staffers—57 including international staff—as of December 2013 (350.org, n.d.-b) and is scattered throughout the U.S. and several other countries. In its 2012 annual report, the organization reports allocating 86

percent of its $2.9 million in expenditures to "campaigns," which corresponds to the "program" category the IRS requires organizations to report (350.org, 2012a).

Although the organization initially concentrated on worldwide climate movement-building activities designed to display what social movement theorist Charles Tilly (2004) has called WUNC (Worthiness, Unity, Numbers and Commitment), it later became more focused on confronting fossil fuel industries in order to weaken their influence on the political process, particularly in the U.S. Since the failure of the Copenhagen climate talks and the U.S. climate change bill, 350.org has launched campaigns to end fossil fuel subsidies, persuade various institutions to divest from fossil fuel investments, and train new grassroots leaders. Its most visible campaign to date has been an effort to block approval of the Keystone XL project, a $7 billion pipeline that would run nearly 2,000 miles and connect Canada's oil sands to refineries near Houston, Texas and the Gulf of Mexico. It has so far included a civil disobedience campaign during which 1,253 activists were arrested in front of the White House, more than 10,000 activists encircled the White House a few months later, and supporters sent more than 800,000 emails to the US Senate (Hestres, 2014, p. 324; McKibben, 2013, loc. 590). In early 2014, 350.org renewed the civil disobedience campaign and claimed 398 students had been arrested in front of the White House (Henn, 2014).

Energy Action Coalition (EAC)

According to its website, EAC "was founded in 2005 by youth activist leaders from across the country to build a powerful youth movement focused on solving the climate crisis and addressing environmental justice" (energyactioncoalition.org, n.d.). Its key function within the climate movement has been organizing a biennial, national climate youth movement conference called Power Shift. Every two years since 2007, thousands of college students and other youths

from across the country have gathered in the Washington D.C. area, and most recently in Pittsburgh, PA, for a long weekend of "training, action and inspiration" (wearepowershift.org, n.d.-a). EAC maintained a staff of twelve as of December 2013 and is headquartered in Washington, DC. Individual financial information about EAC is not yet available because it is a project of the Earth Island Institute (2012b). In addition to its role in coordinating the Power Shift conferences, EAC has been deeply involved in supporting the environmental justice movement, developing leadership among young climate activists at the grassroots level, pushing college campuses to embrace carbon neutrality, and supporting the 350.org-led Keystone XL campaign (wearepowershift.org, n.d.-b).

Climate Reality Project (formerly Repower America/We Campaign)

This organization is the offspring of a merger between two advocacy organizations founded by former Vice President Al Gore: the Alliance for Climate Protection and the Climate Project. Gore founded the Alliance in 2006 as a vehicle for climate-centered advocacy in the U.S., while the Climate Project was conceived as a global educational project derived from Gore's climate presentations. By merging the groups in 2010, their leaders aimed to create "one of the largest non-profit educational and advocacy organizations focused singularly on climate protection issues in the world" (German, 2010).

The Alliance's first major intervention in the U.S. climate debate was a $110 million television and mass marketing campaign called We Can Solve It (a.k.a. the We Campaign) that Gore envisioned as "the first big-budget attempt to use the tools of mass marketing on behalf of the planet" (Pooley, 2010, p. 25). Its centerpiece was a series of television ads featuring bipartisan pairs of high-profile political figures, such as then-House Speaker Nancy Pelosi and former Speaker Newt Gingrich, or Revs. Pat Robertson and Al Sharpton, in which the pairs

jokingly reaffirmed their overarching political disagreements while pledging their support for strong action to curb climate change (Walsh, 2008).

Next, the Alliance launched the Repower America campaign to support Gore's call to shift 100 percent of U.S. energy production to clean energy in ten years. This later became the Alliance's chief vehicle to support comprehensive climate and energy legislation under consideration in Congress in 2009-10 through paid field organizers and a targeted advertising campaign in swing congressional districts and states (Sheppard, 2009). Since the failure of the climate bill in 2010 and the merger of the Alliance and the Climate Project, the Climate Reality Project has concentrated on rebutting climate science denial, and training volunteers around the world through its Climate Reality Volunteer Corps to educate their communities on the facts about the climate change and the urgent need for action (climaterealityproject.org, n.d.; Nisbet, Markowitz, & Kotcher, 2012).

The Climate Reality Project is by far the most well-resourced climate group profiled in this project. In 2011, Climate Reality took in more than $19 million in revenues and spent nearly $14 million—87 percent of which was devoted to its program activities (charitynavigator.org, 2011).

Environmental Defense Fund (EDF)

Founded in 1966, EDF pioneered the use of the legal system to protect the environment. Its first lawsuit tried to ban the use of the DDT pesticide in Long Island, NY, and was followed by other successful suits and advocacy that led to a nationwide ban of DDT in 1972 (Bosso, 2005, p. 42; edf.org, 2013c). EDF has since evolved into a large environmental organization with a reputation for "insiderism," applying legal, scientific and economic expertise to promote legislation, and for its centrist ideology (Nisbet, 2011).

EDF's approach has combined scientific expertise, market-based economic incentives, partnerships with farmers, investors, corporations and other stakeholders, and nonpartisan policy research (edf.org, 2013b). It can take credit originating the "cap and trade" policy that became the centerpiece of most comprehensive climate legislation being considered the mid-to-late '00s (Pooley, 2010, p. 18).[1] During this period, EDF was one of the strongest proponents of cap and trade in the U.S. and a global climate treaty that embraced strong caps on carbon pollution (Pooley, 2010, pp. 97-99). However, EDF's acceptance of corporate donations and willingness to work with them has sometimes caused other environmental organizations and advocates to question the motives behind its policy positions (e.g., EDF's support for NAFTA; see: Bosso, 2005, p. 115; Pooley, 2010, p. 57).

In 2013, EDF reported $154 million in revenue and $120 million in total operating expenses. Of the 84 percent of expenses devoted to the 'program' category, 47 percent was spent on its Climate & Energy program, which consists primarily of high-level lobbying efforts and partnerships with corporations, labor unions, local jurisdictions, and other stakeholders (edf.org, 2013a).

Greenpeace USA

Greenpeace USA is the U.S. affiliate of Greenpeace, an international environmental organization founded in 1971 in Vancouver, British Columbia, and currently headquartered in Amsterdam. The organization emerged in dramatic fashion when a handful of activists leased a small fishing vessel and set sail from Vancouver for Amchitka Island in Alaska to protest U.S.

[1] 'Cap and trade' or 'emissions trading' is a market-based approach that gives polluters market-based incentives to cut emissions of pollutants, such as carbon dioxide. Under this policy, a government sets a limit or cap on the amount of a pollutant that may be emitted. The cap is allocated or sold to firms as emissions permits that represent the right to emit a specific volume of the pollutant. Firms are required to hold a number of permits (or allowances or carbon credits) equivalent to their emissions. The total number of permits cannot exceed the cap, limiting total emissions to that level. Firms that need to increase their emissions must buy permits from those who require fewer permits. (Bosso, 2005, pp. 121-123).

nuclear testing off the coast of that state—an action that brought worldwide attention to the environmental consequences of nuclear testing (Bosso, 2005, p. 44; greenpeaceusa.org, 2013a).

Greenpeace USA's theory of change is summed up neatly by its U.S. executive director Phil Radford: "We 'bear witness' to environmental destruction in a peaceful, non-violent manner. We use non-violent confrontation to raise the level and quality of public debate." It is also reflected in the fact that it does not accept contributions from corporations or governments, and does not endorse political candidates (greenpeaceusa.org, 2013a).

Greenpeace USA's work revolves around three main types of interventions: investigations that expose "environmental crimes" and identify culprits, and often involve high-risk sea voyages; direct non-violent actions that aim to physically stop and bring attention to practices it deems harmful to the environment; and finding solutions to environmental problems that "are both environmentally responsible and globally equitable."

As of March 2014, Greenpeace USA articulated six main issue priorities: ancient forests protection, ocean protections, stopping global warming, preventing construction of new nuclear power plants, chemical storage safety, and sustainable agriculture (greenpeaceusa.org, 2013c). It was involved in the debate around comprehensive climate legislation in the mid-to-late 2000s, although its ideological stance kept it from joining corporate-friendly coalitions like the Climate Change Initiative—an alliance of Fortune 500 companies and environmental groups—embraced by organizations like EDF (Pooley, 2010, p. 156). The group eventually opposed the most prominent legislative vehicles to enact a cap on carbon emissions in the U.S.—including the 2009-10 bills debated during President Obama's first term, such as the American Clean Energy and Security Act, also known as the Waxman-Markey bill (Pooley, 2010, pp. 294, 380).

As of January 2014, Greenpeace USA's stated climate advocacy strategy consists of working with local communities to shut down coal power plants, advocating for laws that curb climate change, exposing prominent individuals and organizations that deny the scientific consensus on anthropogenic climate change, and promoting renewable energy sources like solar and wind (greenpeaceusa.org, 2013b). In 2012, Greenpeace USA reported $33 million in revenue and $30 million in expenses, 80 percent ($26 million) of which was dedicated to its campaigns. Twenty-two percent of campaign expenses ($2.5 million) were allocated to its climate change campaign (greenpeaceusa.org, 2012).

Sierra Club

One of the oldest environmental organizations in the U.S., the Sierra Club was founded in 1892 as a consequence of conservationist John Muir's efforts to transfer jurisdiction over Yosemite National Park from the State of California to the federal government to ensure its protection from overdevelopment (Bosso, 2005, p. 23). The Sierra Club has since evolved into a national organization with 65 state and local chapters and 2.1 million members and supporters across the country, including approximately 600,000 dues-paying members, that is not devoted exclusively to environmental advocacy (Barringer, 2012; sierraclub.org, 2014a; sierraclubfoundation.org, 2012, p. 38). A Sierra Club paid membership comes with numerous benefits, including discounts in clothing, auto and home insurance, household appliances, travel, and other goods and services; a subscription to a bimonthly magazine; a branded Visa credit card; discounts on Sierra Club-branded goods; and other benefits (sierraclub.org, 2013).

Enjoyment and appreciation of nature and the outdoors, as exemplified by the many 'outings' and similar excursions organized by its chapters, is an important aspect of Sierra Club's mission. For example, its Mission Outdoors program "bridges the divide between people and

nature" and focuses on providing urban youth, military and veteran families, and low-income communities with opportunities to experience the outdoors (sierraclubfoundation.org, 2012, p. 8).

Climate change has been part of the Sierra Club's public agenda since 1989, when it listed climate as one of the most pressing environmental challenges, along with general pollution and oil spills (sierraclub.org, 2006, p. 4). During the 2009-10 debate over climate legislation, the Club tried to shape the Waxman-Markey bill to ensure the carbon cap was stringent and supported the bill despite grave reservations about concessions to the coal industry—although it would not have supported the bill were it headed to the President's desk with such provisions (Pooley, 2010, pp. 380-381). This legislative strategy of supporting a bill at its earlier stages, but opposing it later based on its final content, is not uncommon among advocacy organizations; it reflects a desire to improve legislation as much as possible during the process, after which the group decides whether the bill is better than nothing, or is weak but could be improved at a later stage. Although the bill never reached the president's desk, Pooley's interviews indicate that Sierra was pessimistic about its hypothetical final form.

In recent years, the Club's climate advocacy, through its Beyond Coal campaign, has focused on retiring one third of the nation's coal power plants, replacing the majority of these plants with clean energy solutions, and keeping coal in the ground in places like Appalachia and Wyoming's Powder River Basin (sierraclub.org, n.d.). Most recently, the Club endorsed civil disobedience for the first time in its history when it joined the campaign against the Keystone XL project (Unger, 2013). It justified this decision by linking together the philosophies of John Muir and David Thoreau:

> For civil disobedience to be justified, something must be so wrong that it compels the strongest defensible protest. Such a protest, if rendered thoughtfully and peacefully, is in

> fact a profound act of patriotism. For Thoreau, the wrongs were slavery and the invasion of Mexico. For Martin Luther King, Jr., it was the brutal, institutionalized racism of the Jim Crow South. For us, it is the possibility that the United States might surrender any hope of stabilizing our planet's climate. (Brune, 2013)

In 2011, the Sierra Club reported $43 million in revenue and $52 million in expenses. Of the latter, it devoted 90 percent ($47 million) to program services, and nearly half ($20 million) to the Beyond Coal campaign (IRS, 2011b; sierraclubfoundation.org, 2012, p. 35).

Natural Resources Defense Council (NRDC)

NRDC emerged as part of the advocacy group boom of the late-50s to early 70s. It was originally established by Yale Law School students as an environmental law firm along the lines of the ACLU or the NAACP Legal Defense Fund. Over the years, it evolved into a large organization that embraced a "law and science" advocacy model similar to EDF's, building a large program staff comprised of scientists, lawyers, and lobbyists (Bosso, 2005, pp. 43-44). During the early 2000s, NRDC waged a highly visible but ultimately unsuccessful campaign—along with many other environmental groups, including Sierra Club, the National Wildlife Federation, and others—to prevent oil drilling in the Arctic National Wildlife Refuge (ANWR). The effort included its first-ever television ad campaign, which targeted moderate Democratic and Republican senators (Bosso, 2005, pp. 121-123).

In the mid-to-late 2000s, NRDC supported comprehensive climate legislation—including Waxman-Markey—that included a carbon cap, and was part of the Clean Energy Works War Room, a political campaign-style rapid response operation staffed by environmental, labor, and broadly progressive organizations (Pooley, 2010, pp. 400, 419-420). Climate change and clean energy remain top advocacy priorities for NRDC, along with protecting the oceans, endangered wildlife and wild places, fighting pollution, ensuring safe and sufficient water, and fostering sustainable communities (nrdc.org, n.d.). In 2012, NRDC reported revenues of $103 million and

total expenses of $106 million; 82 percent ($87 million) was devoted to program activities, nearly half of which ($42 million) was allocated to its Clean Energy Future program (nrdc.org, 2012). Like EDF, NRDC accepts corporate donations, a practice that has sometimes earned it criticism from other environmentalists (Bosso, 2005, p. 115).

League of Conservation Voters (LCV)

The League of Conservation Voters was founded in 1970 by the leaders of Friends of the Earth for the express purpose of conducting political and partisan activities that other environmental organizations could not because of their tax-exempt status (Bosso, 2005, p. 43). LCV can engage in such activities because its parent entity, LCV, Inc., is a 501(c)(4) organization—a non-tax exempt entity—and thus at liberty to engage in explicitly political and partisan activity (Shaiko, 2012, pp. 153-154). The LCV Education Fund is a separate 501(c)(3) organization that cannot engage is such activities.

LCV's stated mission is "to turn environmental values into national priorities," and works toward this goal by advocating for sound environmental policies, electing candidates who will adopt and implement them, and providing state LCVs with resources and tools to accomplish this mission (lcv.org, 2013). Although it engages in policy advocacy, LCV's real impact is on the electoral side of American politics. Its punish-and-reward approach includes a "Dirty Dozen" electoral scorecard of legislators who hold what it considers to be the most anti-environment legislative records (Shaiko, 2012, p. 156). It also includes fundraising for candidates and incumbents that LCV has judged to have sound environmental records (lcvactionfund.org, n.d.). LCV provided significant field support during the 2009-10 campaign to pass the Waxman-Markey climate bill and participated in the Clean Energy Works War Room (Pooley, 2010, pp. 364, 419). In 2011, the LCV Education Fund reported $6 million in revenue and $5 million in

program expenses, 60 percent of which ($3 million) was devoted to The Heat Is On a program that "enlists the entire League of Conservation movement…to educate the public and the media about the importance of reversing global warming" (IRS, 2011a).

The preceding organizational profiles begin to tell the story of how each organization may approach social and political change within the context of American democracy. They also begin to tell us what different types of organizations may or may not have in common in this regard.

Although the combined histories of these organizations span more than a century, their origins cluster around two critical periods: the advocacy boom of the sixties and seventies that spawned a large number of environmental organizations that endure to this day; and the mid-to-late 2000s, which saw the establishment of many climate-only advocacy organizations and campaigns. Each time period featured different policy challenges and political opportunities for activists. Advocacy groups in the 60s and 70s benefitted from not-yet-polarized public attitudes on the environment; climate advocates in the 2000s were already facing widening polarization on the environment and climate change. Advocates in the 60s and 70s still operated in a relatively center-left political environment that had not yet soured on government interventions on behalf of the public good. President Richard Nixon's establishment of the EPA is but one example of the political climate under which these groups operated in the 70s. Climate advocates in the 2000s faced a much more conservative environment, even after the 2006 and 2008 elections that swept Obama and congressional Democrats into power (although Obama was reelected in 2012, Democrats lost their majority in the House and lost several seats in the Senate in 2010). Organizations established in the 60s and 70s have had 30-40 years to build resources—staff expertise, relationships with decision makers and the media, etc.—that climate organizations are

just starting to build. But while these origins and histories are certainly bound to color the theories of change and Internet strategies embraced by different organizations, they do not necessarily guarantee homogeneity across *types* of organizations.

Theories of Change and Target Audiences: Homogeneity and Heterogeneity

Interviews with staff members from climate organizations revealed a shared belief in a theory of change that holds the creation of a climate change movement as critical to achieving comprehensive solutions to the crisis. They also revealed a sense that something other than traditional issue advocacy—e.g. "armchair activism" as described by Skocpol (2003)—was necessary given the scale of the problem.

Jon Warnow, a 350.org co-founder and its web director, explained his organization's theory of change this way:

> Our basic theory of change is that if enough people who care passionately about the future of the planet and about the climate crisis can get together and have a strategic platform for what essentially amounts to political action, then we can create a groundswell of citizen pressure in the US and around the world. (Personal communication, May 18, 2012)

U.S. campaign director Phil Aroneanu noted that 350.org's student-founders were deeply influenced by a class taught by Middlebury College economics professor and climate activist Jonathan Isham called Climate Change and Social Movements, where students read about the U.S. civil rights movement and revolutionary movements around the world.

In an expansive explication of EAC's theory of change, online director Jeff Mann emphasized a bottom-up approach that reflects that organization's focus on the climate youth movement:

> Basically, our theory of change is to build the networks, [build] people power, train young organizers at college campuses, [and] creating organizing capacity to win fights at the local and national level and using the political power of young people. (Personal communication, November 8, 2013)

According to former campaign director Gillian Caldwell, this need to build a grassroots climate movement is tied to widespread dissatisfaction among activists with the policy options being considered in Washington, DC:

> Too many of the policy proposals had been catered to the political reality in Washington DC, so the goal was, through our grassroots and field operation and through a multisectoral approach, [to] create more space for a more aggressive policy to halt global warming. (Hestres, 2014, p. 329)

These comments indicate a theory of change broadly shared among these climate organizations that emphasizes bottom-up, grassroots participation in addressing climate change as a social and political issue, and is rooted in dissatisfaction with the status quo of climate advocacy. Closely related to this theory of change are the audiences they choose to address most actively. There was a near-unanimous consensus among respondents about the ideal target of their organizations' communication and mobilization efforts: Individuals who are already deeply concerned about climate change and who think collective action is necessary to solve the crisis—in other words, the Alarmed issue public.

Colloquial versions of this concept such as "preaching to the choir" or reaching for the 'low-hanging fruit' came up constantly in conversation. May Boeve, 350.org's executive director and co-founder, said:

> Our most consistent audience is the community of people who care about climate change and see it as a problem and are committed to do something about it. Yes, there's an issue of preaching to the choir, but imagine if you could have the choir all singing from the same song sheet. (Hestres, 2014, p. 330)

Former 1Sky Internet director Garth Moore confirmed this commitment to recruiting and mobilizing those who were already sympathetic to its goals:

> We were definitely trying to reach people who believed climate change is real and is happening but were more the idealists in the sense that strong policy and preventive measures could slow or deter the rates of climate change. We went after the low-hanging fruit of people who were already sold on our issue. (Hestres, 2014, p. 330)

The broad homogeneity of theories of change and target audiences exhibited by these climate advocacy organizations contrasts with responses from legacy environmental organizations, which present a more heterogeneous picture. Asked to describe EDF's overarching theory of change, climate communications director Keith Gaby described a deeply pragmatic approach that emphasized the role of markets and economic incentives in tackling climate change:

> We use a mix of approaches, including regulation, but we need a market-based solution. The market is the most powerful force. We need to realign the economic incentives so that clean energy has a comparative advantage…and the price of fossil fuels reflects their true cost to society. (Personal communication, October 18, 2014)

During the interview, Gaby also described many strengths that EDF brings to climate advocacy, including decades-long work on various environmental issues; a focus on economics; a willingness to both confront *and* partner with corporations; and its credibility with a broad center-left and center-right ideological spectrum. David Acup, senior director of interactive marketing & membership at EDF, also emphasized the importance it attaches to economics and market-based approaches by citing the fact that EDF was the first environmental organization to hire an economist with a Ph.D. (Personal communication, October 21, 2013). As for target audiences, Gaby described an approach that varies significantly from that of climate groups:

> We don't focus on committed, angry deniers, and we don't focus on the Alarmed because that middle 70 percent is what's important to us. We're trying to make [climate change] a higher priority for the center-left, and trying to find the right approach with the center right. (Personal communication, October 18, 2014)

Former NRDC director of online strategy Apollo Gonzales described a similar theory of change for his former employer that emphasized policy expertise and high-level decision-maker persuasion:

> [NRDC] has a variety of types of roles. There are attorneys, there are policy advocates-slash-lobbyists, there are scientists, and program specialists who are advocates, so every position has a different theory of change. (Personal communication, November 21, 2014)

Addressing the strengths that NRDC brings to climate and environmental advocacy, Gonzales characterized its policy and scientific expertise as "huge"—a description that was confirmed by NRDC email coordinator Liz Langton (Personal communication, January 7, 2014). Gonzales also noted the influence that its experts exert on media coverage, as measured by mentions and quotes in various media, congressional floor debates, and similar public arenas. Gonzales mentioned that, although NRDC concentrated on "preaching to the choir," it also reached out to "folks inclined to reason [and] being receptive to science around climate" (Personal communication, November 21, 2014)—a segment that falls in the 70 percent mentioned by EDF's Gaby. Langton described NRDC's audience targeting this way:

> We have a base and we try to communicate with them in the best way possible. But we're also reaching new audiences—those people that don't necessarily consider themselves environmentalists. We're talking about moms, pet owners, sports enthusiasts—people that don't necessarily talk about climate change in their everyday lives, but maybe when they're going out skiing and there's no snow on the slopes, there's a person that we can target and say: this should be important to you because it's affecting your life. (Personal communication, January 7, 2014)

These answers reveal a broadly shared theory of change that emphasizes scientific and policy expertise, and elite decision-maker persuasion. They contrast with answers provided by staffers from other organizations that emphasize alternative theories of change. Perhaps the strongest contrast comes from Greenpeace USA. Michael Silberman, global director of Greenpeace's Digital Mobilisation Lab—and former 1Sky Internet director—described Greenpeace's theory of change this way:

> Greenpeace is very much focusing on the corporate side of the equation…less on the political side…we've moved way from the "Congress needs to pass a bill" phase. We're putting direct pressure on companies to make [dirty energy] harder to exist. We're creating a toxic environment for dirty energy. (Personal communication, October 18, 2014)

Silberman cited Greenpeace's history and willingness to take direct, non-violent action as one of the assets it brings to climate advocacy. He also mentioned its ability to create media

"moments" through its actions, and its investments in grassroots field staff, an online activist network, a campus network, and more investments in mobilization. Unlike EDF, Greenpeace tends to see corporation more as part of the problem than part of the solution.

In the Sierra Club's case, its grassroots-oriented theory of change stems from its long history and organizational structure. As the Club's director of digital innovation Michael Grenetz put it:

> Sierra Club…has a very democratic, grassroots empowerment focus. We have volunteers on the ground, we have chapters that are self-led and self-funded. I think this ethos of movement-building and power-building is Sierra Club's theory of change: [the ethos] that by building people-power and empowering people to run campaigns on the issues they care about is how we win. (Personal communication, October 30, 2013)

Like Greenpeace's Silberman, Grenetz emphasized Sierra Club's grassroots organizing prowess as a key strength it brings to climate advocacy. Examples included the Club's Beyond Coal campaign and the large turnout it has produced for climate rallies and events led by 350.org.

Theories of Change and Strategic Internet Use

Strategists described strategic Internet uses that tend to align with the theories of change outlined above. Strategists from groups that embrace theories of change emphasizing policy expertise and elite persuasion described online strategies that play to this strength, while strategists from groups that emphasized grassroots and participatory theories of change described online strategies that are most conducive to this type of mobilization. Alex Bea, former online team member at both 350.org and 1Sky, describes the emphasis that 350.org places on online-to-offline actions:

> The most prevalent [actions] were offline actions. The global days of action…[were] about letting people take action offline, however they wanted to but making sure they do it offline and publicly. There were a lot of rallies, teach-in events, speaking events [and]

> marches. There was some petition work but not a lot. Most of the work was spent organizing offline. (Personal communication, May 17, 2012)

This commitment was shared by the 1Sky campaign, which spearheaded the Climate Precinct Captains (CPC) program, an ambitious online-to-offline organizing effort. The CPC program's goal was to support climate organizers and volunteers in each of the country's 300,000 electoral precincts and was connected to The Climate Network, an online community through which 1Sky and three other climate groups—Clean Energy Works, the Energy Action Coalition, and Focus the Nation—planned to engage their supporters (1Sky, 2008; Moore, Silberman, & Butler, 2010). The goals of the project were to give local groups and organizers online tools to support their offline work, and to document and map the growing climate change movement online for legislators and other decision-makers. Ultimately, the program did not meet expectations and was abandoned (Moore et al., 2010).

An emphasis on grassroots participation sometimes involves a strategic decision to trade some message control—an asset highly valued by political communication practitioners—in order to encourage participation. EAC's Jeff Mann discussed this tradeoff within the context of the group's Power Shift blog:

> What I think we get from [trading message control] is a space that the grassroots can feel is *their* space, that they're not blogging for EAC but because they have something to say, so I think people are more interested in that. (Personal communication, November 8, 2013)

The strategic Internet use and action repertoires described by EDF's Keith Gaby differs significantly from uses and repertoires de scribed above. When asked what types of actions EDF supporters are asked to take, Gaby replied:

> We ask them to write their congressman, to comment on EPA regulations, to communicate to the White House, to talk to their local officials. If they make political contributions, to convey that they are doing this based on the recipient's position on climate; essentially to communicate. We have sometimes had field operations but we don't tend to maintain one. (Personal communication, October 18, 2013)

Gaby also mentioned EDF's extensive use of specialized blogs to reach specific audiences—e.g. fisherman, farmers, etc.—as well as elite opinion and the general public. This approach also extends to EDF's use of social networks. Mica Vehik, communications director for EDF's U.S. climate and energy program, highlighted EDF's use of LinkedIn—a social network not typically associated with issue advocacy—as a communications outlet because of its professional orientation (Personal communication, December 5, 2013). Similarly, NRDC's Langton emphasized low-threshold online actions as that organization's mobilizing goal:

> The main goal is to ultimately get them to comment to the EPA; to help drive as many comments needed to get the new [carbon pollution] source standards through, and then later this year the existing [carbon pollution] source standards through. (Personal communication, January 7, 2014)

These online strategies not only differ from those highlighted by climate organizations, but also from those highlighted by grassroots-oriented groups like Greenpeace. Perhaps the best example of Greenpeace's online strategies for spurring widespread, high-level participation is the Mobilisation Lab: a global initiative launched as a consequence of the failure of the Copenhagen climate conference to maximize volunteer-led advocacy and test new ideas for online and offline engagement. Inspired by decentralized movements like the Arab Spring, the Mobilisation Lab:

> [P]rovides the global organization and its allies a dynamic, forward-looking space to envision, test, and roll out creative new means of inspiring larger networks of leaders and people around the world to break through and win on threats to people and the planet. (Greenpeace, n.d.)

Greenpeace's Silberman confirmed that the Mobilisation Lab is an attempt to implement a strategic vision that moves away from top-down campaigns with tightly-controlled messaging to a looser, more open-ended model. As Silberman put it, Greenpeace is "switching to a mentor role rather than [being] the hero of the story" (Personal communication, October 18, 2013).

Oliver Bernstein, the national communications strategist for Sierra Club, invoked the concept of the "ladder of engagement" to describe the Club's online-to-offline organizing efforts. Advocacy professionals commonly understand the ladder of engagement as the process by which an activist is recruited into higher levels of activism by first being given the opportunity to carry out tasks that require less effort. In Sierra Club's case, the ladder might consist of actions like tweeting to fossil fuel company CEOs that progressively lead to higher-threshold actions, such as becoming a volunteer or a volunteer leader. This model has been influenced by the work of social movement strategist and scholar Marshall Ganz, the Midwest Academy's organizing training program, community organizer Saul Alinsky, and labor rights leader Cesar Chavez. According to Bernstein, Sierra Club "certainly didn't invent the [ladder of engagement] concept, but I would say we have perfected a lot of it and continue to perfect how you bring the activists in and get them involved" (Personal communication, November 13, 2013).

Discussion

In this chapter I have relied on in-depth interviews with some of the most experienced and skilled communication strategists working today to explore the link between organization types, theories of change, and Internet-mediated advocacy. The most obvious limitation of this chapter is the absence of interviews with communication strategists from the Climate Reality Project and the League of Conservation Voters. While these organizations' theories of change can be inferred from publicly available materials, such as books, web pages or annual reports, their lack of availability for interviews presents a limitation to this chapter and its conclusions.

The interviews suggest that organizations embracing theories of change that emphasize subject-matter expertise and elite opinion persuasion are more likely to pursue online strategies that encourage low-threshold participation and facilitate the flow of ideas among elites. They

also suggest that organizations embracing theories of change that emphasize broad-based, high-threshold participation are more likely to pursue online strategies that facilitate grassroots mobilization and participation in the political process. All of these organizations use to varying extents the same online tools: sophisticated mass email systems, constituent relations management (eCRM) software to manage their supporter lists, blogs, search engine optimization (SEO), online advertising, and social media, among others. But their strategic thinking on how to use these tools varies considerably between organizations, and such variation seems related to the theories of change they embrace.

These interviews also point to broadly shared theories of change among climate organizations, but greater heterogeneity among legacy environmental organizations. These differences may be explained by the historical contexts in which these organizations were established. The climate organizations featured in this chapter were all established in the late 2000s against the backdrop of a political system that had proved incapable or unwilling to enact climate solutions at the scale that activists thought necessary to avoid catastrophe. A broadly shared sense that "politics as usual"s would not suffice to enact such solutions was the driving force behind the establishment of these organizations.

The origins of the environmental organizations profiled in this chapter, however, are more heterogeneous. EDF and NRDC were established within a political climate that was more receptive to calls for environmental regulation and governmental action in general. Their approaches were highly successful during this era and encouraged further investment in the resources needed to expand this approach: greater subject-matter expertise and sophisticated elite persuasion operations. Greenpeace USA is the national affiliate of a global organization that did not originate in the U.S. and therefore carries a different historical tradition of advocacy. Finally,

Sierra Club's long history of chapter-based governance has led to an emphasis on grassroots mobilization in its advocacy.

Interviews also revealed no strong commitments to action repertoires featuring high-threshold, Internet-based or 'virtual' actions as conceptualized by Van Laer and Van Aelst (2010), regardless of whether they were web-native or legacy organizations. Instead, the action repertoires consist mostly of low-threshold actions (both Internet-assisted and Internet-based), and high-threshold, Internet-assisted actions. The specific mix depends on the particular organization's theory of change. This finding suggests that, at least when it comes to formal advocacy organizations, as opposed to campaigns or movements that reflect the "organizing without organizations" (Shirky, 2008) or the "logic of connective action" (Bennett & Segerberg, 2012) phenomena, Internet-assisted action repertoires are the norm.

Finally, this chapter highlights important differences between large, multi-issue, Internet-mediated advocacy organizations and their issue-specialist counterparts. Unlike large Internet-mediated organizations like MoveOn.org or the Progressive Change Campaign Committee (PCCC) that can rely on small, individual donations tied to the media and political cycles because of the sheer size of their email lists, climate specialists like 350.org, 1Sky (before the merger), and EAC, still rely heavily on large donors and foundation grants to fund their operations. These organizations—or their legacy counterparts, for that matter—also did not report a reliance on MoveOn's or PCCC's tried-and-true headline-chasing approach. Instead, issue-specialists like 350.org must generate headlines in order to break into the political news cycle—case in point, the anti-Keystone XL civil disobedience campaign (Hestres, 2014). Given that so much of the day-to-day advocacy work in the U.S. is performed by issue-specialist organizations that belong to reasonably well-defined advocacy communities (e.g., the

overlapping environmental and climate advocacy communities), these findings indicate a need for greater focus on these organizations as we continue to investigate the relationship between Internet use and contemporary issue advocacy.

CHAPTER 4

MOBILIZATION: MOTIVATIONAL FRAMING AND ACTION REPERTOIRES IN CLIMATE CHANGE ADVOCACY EMAIL COMMUNICATIONS

Introduction

The previous chapter relied on in-depth interviews with online strategists and other communication professionals working at environmental and climate change advocacy organizations to ascertain the theories of change that these organizations embrace and their relationship to their communicative and mobilizing strategies. This chapter relies on a different research method and type of data to further clarify these relationships: a quantitative content analysis of advocacy emails produced and distributed by these organizations to their lists of supporters. Because virtually all advocacy organizations now use email to communicate directly with their supporters, this online communication medium serves a convenient proxy for studying how these groups have been framing climate activism for their most committed supporters and what they have been asking them to do about it.

This chapter focuses on three aspects of these email communications: a) the motivational frames that different types of organizations have used to motivate their supporters to take action; b) the climate-related issues or policies they have been urging their supporters to embrace; c) the action repertoires they have chosen to deploy. Together with the previous chapter, this mixed methods approach pairs qualitative data gathered directly from online strategists and communicators with quantitative data extracted from their work product. It therefore serves as a useful counterpart to their opinions, and judgments about their organizations and their own work.

The literature reviewed in Chapter 2, along with the organizational profiles and interview data presented in Chapter 3, serve as the basis for deducing some expected findings for this chapter. First, given where 1Sky, 350.org, Sierra Club, and Greenpeace fall in the

climate/environmental ideological advocacy spectrum, I expect to find that these groups use more polarizing motivational framing than EDF, NRDC, LCV, and Climate Reality, which are perceived to be more moderate. Second, given the preference that climate organizations have expressed for grassroots organizing, I expect they will have deployed action repertoires that emphasize online-to-offline, high-threshold mobilization, while environmental groups (save for Sierra Club and Greenpeace, which expressed a clear preference for grassroots or direct action), will primarily rely on low-threshold, online-only actions—especially those that focus on the regulatory process. Finally, given the environmental organizations' legacy status and prior history of relying on the "checkbook activism" model, I expect these groups to solicit donations to a comparatively higher level than climate (i.e. web-native) groups. These and other deductive expectations are stated in greater detail below as hypotheses.

Internet-Mediated Advocacy, Framing, and Action Repertoires

Wide adoption of the Internet has enabled the creation of Internet-mediated advocacy organizations (Karpf, 2012), whose communication and mobilization dynamics differ from the "armchair activism" model exhibited by organizations founded during the U.S. advocacy group boom of the late '60s-early '70s (Skocpol, 2003). They do not depend on paid memberships for financial stability, tend to maintain smaller, geographically dispersed staffs that collaborate online, embrace multiple issues, allow a culture of analytics to heavily influence their strategies, and engage in opportunistic advocacy—what Karpf calls "headline-chasing." While different in important ways, this categorical distinction somewhat mirrors the supersizing/theory 2.0 dichotomy, although this categorization hinges on how extensively organizations and campaigns take advantage of the Internet's technological affordances (Earl & Kimport, 2011). When the Internet's unique technological attributes are leveraged, theory 2.0 effects result; but when these

attributes are not fully leveraged, only supersizing occurs. These effects should also align with whether organizations can be considered legacy or web-native (DiMaggio et al., 2001). Under the pre- and post-Internet classification, environmental groups can be classified as legacy, while climate groups can be labeled web-native.

But as we move from the multi-issue level of advocacy to the single-issue level, where most day-to-day and long-term advocacy takes place, some of the distinctions between legacy and web-native organizations begin to fade. For example, the relatively small size and reliance on foundation and large individual donations, of climate organizations that most neatly fit the category of Internet-mediated—1Sky, 350.org, and EAC—would lead us to expect fewer fundraising appeals, especially ones tied to headline-chasing. There are also no significant differences related to technological affordances. Although my prior work and research for this project revealed different strategic approaches to strategic Internet use, it did not reveal significantly different leveraging of the Internet's technological affordances from that of legacy organizations (Hestres, 2014). The legacy/environmental and web-native/climate advocacy groups profiled here rely on the same types of online tools, and deploy them for virtually identical online action repertoires (Van Laer & Van Aelst, 2010). The differences come in the *mixtures* of online tactics they choose to deploy, which may be related to two factors: the advocacy opportunities available to different organizations through the political process and the resources they have accrued over time; and 2) the combinations of models of the public sphere and democratic social and political change different organizations appear to embrace (McAdam et al., 1996; Price, 2008).

Given the broad differences between environmental and climate advocacy organizations in terms of resources, longevity, and access to key US policy-makers, we would expect climate

organizations to deploy action repertoires that emphasize outsider, grassroots-oriented repertoires, while environmental groups would deploy elite-oriented repertoires that play to their well-established organizations strengths. Under these assumptions, environmental/legacy groups would request a higher level of low-threshold actions, while climate/web-native groups would request higher levels of high-threshold actions.

Differences should also arise in their approaches to how they choose to frame the need to take climate-related action to their supporters. Although climate change has been framed in quite a number of ways for the benefit of various audiences (Nisbet, 2009), supporters who subscribe to environmental or climate change advocacy email lists would not need to be convinced that a) climate change is a problem, and b) that it needs to be solved—what social movement scholars call "diagnostic" and "prognostic" framing (Snow, Rochford, Worden, & Benford, 1986). Instead, groups can focus on providing additional motivation to take action—i.e., "motivational framing"—in order to achieve "action mobilization" (Klandermans, 1984, p. 586). Under PPT, climate organizations, which have less direct access to the U.S. climate policy-making process, should favor more confrontational motivational frames that demand accountability from various institutions in relation to climate, while environmental organizations should embrace frames that play to their policy expertise, which would emphasize the effects of climate change and consequences of inaction.

There is also the question of policy prescriptions. A preliminary, inductive analysis of the data revealed three broad categories of policy options advanced by organizations: cutting carbon emissions through legislation or regulation; investing in clean energy and efficiency; and stopping or sharply diminishing fossil fuel extraction. Given the orientations expressed in the previous chapter, and their comparative levels of resources, we would expect environmental

organizations would most often advocate for solutions that play to their strengths, such as regulation or investment, while climate groups would focus on more confrontational policies, like non-extraction, that hold the most potential for grassroots mobilization.

Research Question and Hypotheses

Based on the preceding discussion, I will pursue and test the following research question and hypotheses:

H1: Climate/web-native organizations will deploy motivational frames that demand accountability from decision-makers to a significantly higher level than environmental/legacy groups.

H2a: Climate/web-native organizations will request a significantly higher level of high-threshold actions than environmental/legacy groups.

H2b: Environmental/legacy organizations will request a significantly higher level of low-threshold actions than climate/web-native groups.

H3a: Environmental/legacy organizations will request donations to a significantly higher degree than climate/web-native organizations.

H3b: Climate/web-native groups will request donations to a significantly lower degree than environmental groups.

H4a: Environmental/legacy organizations will mention policies that restrict carbon emissions through legislation or regulation, and policies that promote clean energy and efficiency, to a significantly higher degree than climate/web-native organizations.

H4b: Climate/web-native organizations mention policies that restrict fossil fuel extraction through legislation or regulation to a significantly higher degree than environmental/legacy organizations.

Method

Independent Variables

Based on the literature discussed above and my inductive, preliminary analysis of the data set, I conceptualized two independent variables for testing:

Organization: The organizations represented in the sample.

Organization type: This classification reflects both an organization's issue advocacy focus, and its establishment predated or postdated broad Internet adoption. The variable consists of two values:

- Web-native climate organization**:** These organizations exist solely to advocate for action to solve the challenges of climate change, and have also been founded after broad adoption of the Internet in the U.S. The Climate Reality Project, the 1Sky campaign and 350.org meet both criteria.
- Legacy environmental organization: These organizations exist to advocate on multiple policy issues that fall under the umbrella of the environment, have carved out space within that agenda for climate advocacy, and were established before wide adoption of the Internet. NRDC, EDF Sierra Club, Greenpeace USA, and LCV meet these criteria.

Dependent Variables

Through a combination of categories present in the literature (Moser & Dilling, 2011; Nisbet, 2009, p. 18; Nordhaus & Shellenberger, 2007; Shellenberger & Nordhaus, 2005), and an inductive, preliminary analysis of the data set, I arrived at the three dependent variables measured in this study: motivational frames, actions, and issues. Detailed coding category descriptions and instructions, including keywords, names, phrases, and examples frequently

associated with each coding category can be found in the codebook, which is available in full in Appendix B. I operationalized these dependent variables as follows:

Mobilizing frame: a mobilizing message that provides an organization's supporters with additional motivation to take action. This construct took on three individual forms, and coders were instructed to code for either the presence or absence of any of them in each case:

- Climate/environmental protection or prevention: urges action to prevent catastrophic climate change or environmental damage, and/or to protect the planet, habitats, and communities from their effects, including threats to the public's health.
- Public accountability/support: urges action to hold public officials, corporations, powerful individuals, the media, etc. accountable for blocking climate or environmental action and/or thank or support them for taking action on climate or protecting the environment. These are commonly known in advocacy circles as "thank" or "spank" messages.
- Movement/organizational support**:** urges action to help build the climate movement as a way to accelerate climate action, and/or support a particular organization so it can keep fighting climate change or other environmental battles.

Action: The specific action the organization requests from the recipient in the email. My preliminary coding revealed very few actions that fall under the virtual/high threshold categories, such as hacktivism or culture-jamming. Therefore, virtually all actions in the codebook fall under the broad categories of real/low-threshold, real/high-threshold, or virtual/low-threshold.

Coders were given a list of 21 actions, including a "no action requested" option: click to read, learn more, or for more information; generic online action; share, like, tweet, etc. on social media; petition congressional target(s); petition the president/White House; petition more than

one branch of government; petition or contact corporation/corporate CEOs; email congressional target(s); email the president/White House; email more than one branch of government; contact a federal agency; call congressional target(s); call the president/White House; make a donation; participate in a conference call; attend an event; organize an event; visit members of Congress; become a regular volunteer, volunteer leader, or organizer; and participate in civil disobedience.

I also recoded the twenty-one actions into two new variables. **Actions by Threshold** contains two values:

- Low-threshold actions: comprises all actions, up to and including making a donation, that do not require additional offline action or involve commitments to future offline action.
- High-threshold actions: includes actions that require additional offline action or involve commitments to future offline action. Examples of low-threshold actions include signing an online petition, emailing the President, and sharing content via social media. Examples of high-threshold actions include making calls to decision-makers, signing up to attend an event, and becoming a regular volunteer.

Actions Collapsed groups the 21 coded actions into seven categories: no action, generic online action, share/tweet/etc., online petitions, emails to decision-makers, contact a federal agency, calls to decision-makers, donations, and offline actions.

Issues: Mentions of climate change or issues closely associated with climate change by various stakeholders. Coders were asked to code mentions of any of these issues or related terms in each email: climate change or global warming; climate legislation or a cap on carbon emissions; the Clean Air Act or Environmental Protection Agency (EPA); clean energy (broadly construed); energy efficiency (broadly construed); coal (broadly construed); oil (broadly construed); the Keystone XL pipeline; divestment from fossil fuel investments; hydraulic

fracturing or 'fracking'; extreme weather; and any environmental issue not directly related to climate change (overfishing, whale hunting, habitat preservation, chemicals in consumer products, etc.).

In addition, I recoded some of the issues into three variables that indicate advocacy, or at least rhetorical support, for certain climate policy solutions. Mentions of emissions-capping legislation and/or EPA/Clean Air Act regulation have been recoded into Cap CO_2 Emissions; mentions of clean and/or renewable energy have been recoded into Clean Energy & Efficiency; and mentions of the Keystone XL project, fracking, and/or divestment, have been recoded into No Extraction.

Data Collection

I relied on a data set created by David Karpf (2010) called the Membership Communications Project (MCP). The data set has two components: a Gmail account that Karpf used to subscribe to the email lists of more than 70 progressive advocacy organizations, and a spreadsheet listing the organizations. The organizations range from those with long histories (e.g. NAACP, ACLU, Planned Parenthood, Sierra Club) to relatively new ones (e.g. Organizing for America, Color of Change, MoveOn.org, 350.org), and represent a wide spectrum of issues, including civil rights, reproductive rights, poverty, workers' rights, the environment and, of course, climate change. The Gmail account has been active since January 21, 2010 and continues to receive emails from most of the organizations to this day. It is a living data set of progressive online advocacy.

There is a limitation of this data set that Karpf has already acknowledged (2010, p. 22). Because of the myriad ways that organizations segment their lists of supporters, including segmentation by geographical location, level of prior activity, interests expressed by the user,

donor status, and many others, the only way for an outsider to have access to all email communications would be to somehow belong to all these segments simultaneously—a practical impossibility. As Karpf notes, this data set represents a "member's eye-view" of membership communications that, while missing small variations, approximates what an average supporter would receive.

There are two other data set limitations worth mentioning: First, there are no emails from the 1Sky campaign after April 2011, when it merged with 350.org. Second, there are no emails from Sierra Club after September 20, 2011. After consulting with Karpf, we determined that this was probably due to an automated function on Sierra's e-constituent relationship management (eCRM) software that stopped emailing members after a certain period of inactivity. This is not uncommon in the world on online advocacy, where most organizations rely on very similar eCRM systems that routinely perform this kind of automated list maintenance. Similar limitations are not uncommon in online communications research that relies on digital communication outputs like emails, websites, or certain social media data.

Data Extraction and Preparation for Coding

The raw data as originally formatted, in the form of Gmail messages, was impractical for analysis. During a preliminary conversation about this study, Dr. Deen Freelon recommended that the emails could be extracted and analyzed more easily if they were first downloaded to a computer using the open-source Mozilla Thunderbird email client, which stores all messages in an SQLite database. Although this database can be queried using various SQLite clients (early attempts relied on a Thunderbird extension called SQLite Manager, version 0.7.7), my own search through the Mozilla add-ons site uncovered an extension called ImportExportTools, version 2.7.2.2. This add-on allows the user to export messages from a Thunderbird folder in a

variety of formats, including CSV and HTML, either individually or as a list that serves as an index of all emails within a folder—without having to construct database queries. While database queries would have probably allowed for more fine-grained data extraction, the ImportExportTools add-on proved more than sufficient for the purposes of this study. Before extracting the emails from Thunderbird, I used Gmail filters to label all emails of interest according to the organizations that sent them; these labels later became folders in the Thunderbird client. I then extracted the data as both CSV and HTML versions of messages from each organization's folder.

After extracting separate collections of emails in both CSV and HTML formats for each organization, I prepared both sets of files for coding. The CSV files were adapted to serve as online coding sheets and uploaded to Google Docs for easy access. Coders used the HTML versions of the emails to review the content, and then add their codes to the Google spreadsheets. I uploaded the HTML files to separate directories for each organization that I created on my personal website and directed coders to view the files there. Each email bore a unique identification number to ease coding and analysis throughout the study. All emails are available at http://luishestres.com/dissertation.The codebook was also posted online as a Google Doc so that coders could consult it at any time.

Unit Of Analysis And Sampling

I settled on the entire text of the email, including the subject line but excluding email footer text, as the unit of analysis. Only advocacy emails were coded. I defined advocacy emails as emails addressed to a national audience whose primary purpose was to elicit political action from the recipient and explicitly requested such an action, or were part of an ongoing advocacy relationship between supporters and organizations. This criterion excluded newsletters, blog

posts sent as emails, and similar messages that were primarily informative in nature, as were emails received by the account that had been localized automatically based on location data provided during original creation of the data set. Images contained within emails, such as header banners or those featured in the top right-hand box usually found in advocacy emails, were also excluded from this analysis. While a visual framing analysis of this data would have been undoubtedly interesting and useful, unfortunately it was beyond the scope of this study.

All emails were sent between January 21, 2010 and January 21, 2013—a total of 1,750 emails. I culled from the data set any emails that did not conform to the criteria of advocacy emails. This yielded a population of 707 units, from which I extracted a stratified sample to retain the proportions of emails sent by different organizations. After determining an appropriate sample size of (N = 538) and the number of emails per organization necessary to retain their proportions within the population, I separated the emails according to organization, randomized them in Microsoft Excel, and then selected the necessary number of units per organization. The resulting sample was randomized yet again and divided equally amongst the coders.

Coding Process and Intercoder Reliability (ICR)

Best practices in content analysis reporting recommend that at least two measures of intercoder reliability (ICR) be provided (Lombard, Snyder Duch, & Bracken, 2002). I chose Cohen's kappa (κ) and Krippendorff's alpha (α) as the measures of intercoder reliability for this study because they allow for multiple coders and account for chance agreements (Cohen, 1968; Krippendorff, 2012). These two measures are thought to be conservative, so the reliability of these variables may well be higher (Lombard et al., 2002, pp. 52-53).

I set the level of reliability for both measures at .60, which are appropriate because the study does not rely on measures with long track records that would predict higher reliability and

given the fact that I was analyzing relatively latent, interpretative content in the form of selectively framed appeals. Because of the relative novelty of several aspects of this research, including the use of advocacy emails as units of analysis and the measurement of motivational framing in environmental and climate advocacy communications, the lower threshold of .60 is appropriate (see Riffe, Lacy, & Fico, 2008, p. 151 for appropriatness of lower levels of reliability in certain cases).

Three coders, myself included, participated in this study. Coders reviewed the codebook before our initial training session. After this session, we held four rounds of reliability coding, with all coders working on the same units individually. Intercoder reliability was calculated after each round, and the codebook was adjusted based on coders' experiences, until appropriate reliability levels were achieved for all variables. I used the ReCal3 online reliability calculator, available at http://dfreelon.org/utils/recalfront/recal3/ (Freelon, 2010), for all reliability tests. Table 4 shows the intercoder reliability coefficients for all variables.

Table 4. Reliability of Variables

Variable	Cohen's κ	Krippendorff's α
Protection/Prevention	.613	.615
Accountability/Support	.72	.721
Movement/Organizational Support	.698	.694
Actions	.712	.715
Issues (range of coefficients)	.606-1	.633-1

Results

Description of Sample

Organizational categories.

The sample consisted of 538 emails, with no missing cases. Although environmental organizations comprised the majority of the sample at 69.7 percent, the 30.3 percent of emails

from climate organizations comprised a substantial portion. Henceforth, I will use these abbreviations whenever necessary for the sake of brevity or economy of space: League of Conservation Voters will be referred to as LCV; Greenpeace USA as GPUSA; Environmental Defense Fund as EDF; Natural Resources Defense Council as NRDC; Repower America/Climate Reality Project as Repower/CRP; and Sierra Club will sometimes be referred to as Sierra.

LCV was most represented in the sample, with 23.4 percent of emails, while 1Sky was least represented at only 5 percent. Figure 1 illustrates the proportions of the sample by organization.

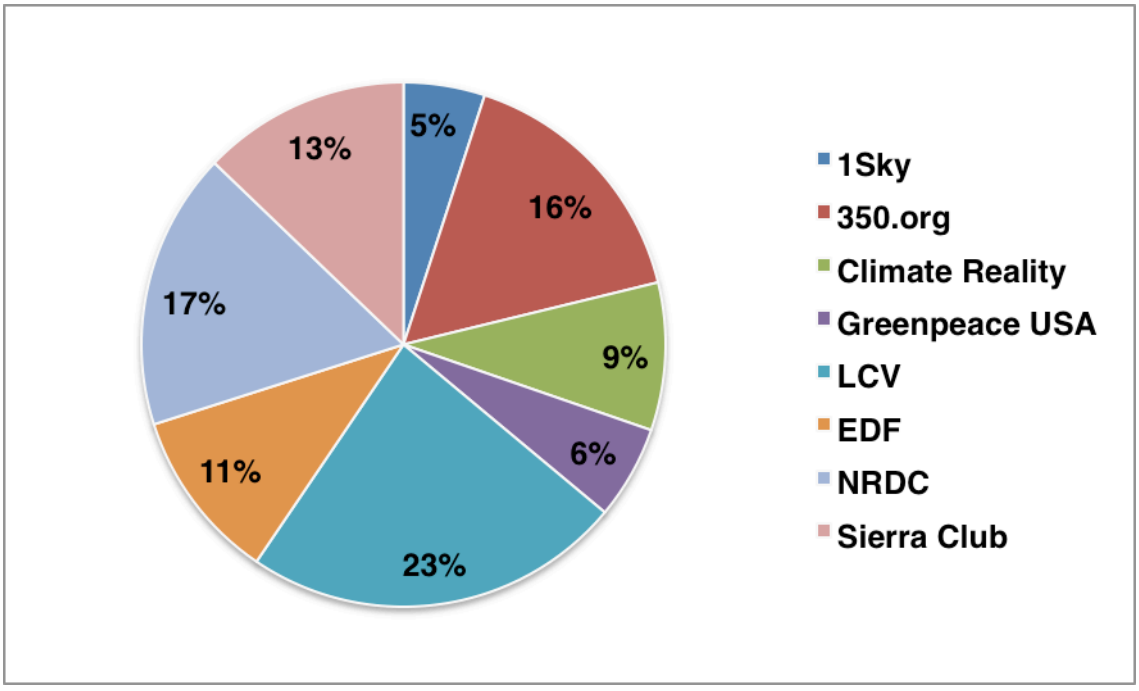

Figure 1. Proportion of Emails by Organization

Frames.

Among the three motivational frames coded—Protection/Prevention, Accountability/Support, and Movement/Organization Support—the Accountability/Support frame was most frequent. Accountability/Support surfaced in 74 percent of emails, while

Protection/Prevention was present in 49.8 percent of emails, and Movement/Organization support was present in 41.1 percent. Figure 2 illustrates the relative frequency of the three frames in the sample across all organizations, while Figure 3 compares how frequently each organization deployed each frame.

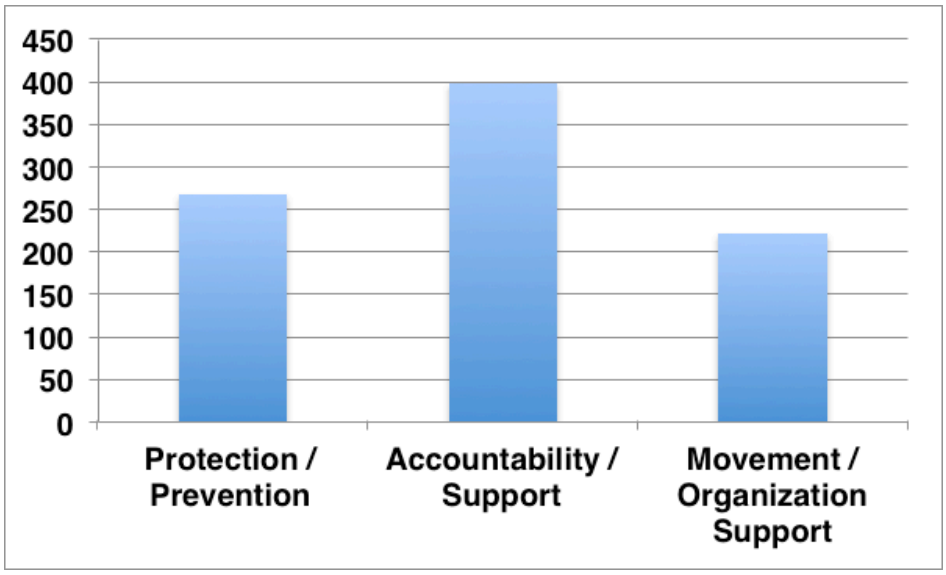

Figure 2. Frequencies of Motivational Frames

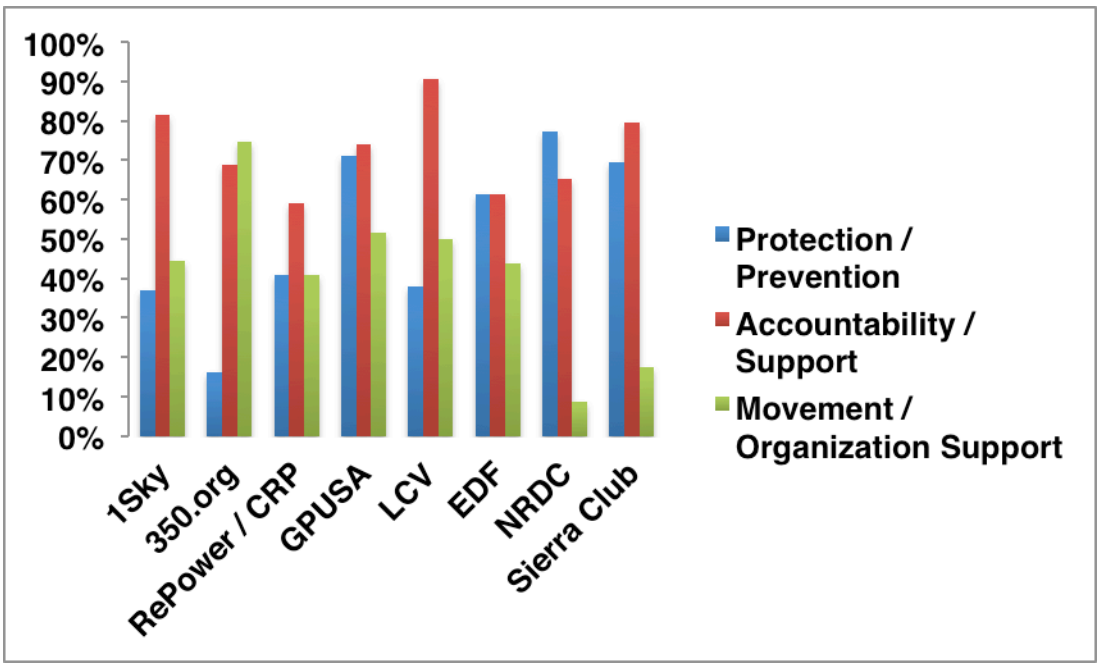

Figure 3. Motivational Frame Use by Organization

Examples of framing.

Both figures confirm the preponderance of the Accountability/Support frame across the sample. Use of this frame took on various forms, including criticism of elected officials, fossil fuel corporations, and other prominent political actors; less frequently it took on the form of praise and support for similar figures for their stance on climate change. For example, deploying the Accountability/Support frame, 350.org held President Obama accountable for his supposed lack of action on climate change (item 762):

> Most of us like what President Obama campaigned for. But after taking office, he has not acted courageously on climate and energy issues. In fact, just a month ago he ended a longstanding moratorium on new offshore oil drilling. He told Americans it was safe. (350.org, 2010)

In this next example, EDF bundles various adversaries into a monolithic opposition to rally its members around pledge of support for climate action in the near future (item 322):

> The climate deniers, oil magnates and K Street lobbyists are out in force to stop us.

> We know the opposition will outspend us by hundreds of millions of dollars. But in spite of the formidable barrage of lies, deceit and bare knuckled pressure, we got a bill through the House a year ago. We can and must do it again in the Senate.
>
> **Please pledge to help do your part during this critical moment** [emphasis in original with link to action]. (EDF, 2010)

As this final example from LCV shows, organizations sometimes deployed the support dimension of the Accountability/Support frame (although not as often as the accountability dimension), and combined it with financial appeals to support public officials—in this case, then-U.S. Senate candidate Tammy Baldwin, Democrat from Wisconsin (item 577):

> Tammy Baldwin is a seven-term congresswoman currently serving in Wisconsin's second congressional district. **With an outstanding LCV lifetime score of 97 percent**, she's demonstrated time and again that she's a true environmental leader [emphasis in original]. In fact, she helped author and pass the U.S. House's comprehensive clean energy and climate bill in 2009.
>
> **Can you make a contribution to Tammy's Senate campaign today via LCV Action Fund's *GiveGreen* website?** [emphasis in original with link to action] (LCV, 2012)

NRDC was the organization that most often deployed the Protection/Prevention frame, using it in 77 percent of its emails (see Table 5). In this example, NRDC highlights the negative environmental impacts of mountaintop removal (an issue often closely linked to climate change) to motivate supporters to take action (item 148):[2]

> Instead of extracting coal from underground, mountaintop removal mining blasts away mountain peaks to access the coal underneath. The waste is dumped into adjoining valleys and often into streams, wiping out forests and the wildlife that depend on them. Greedy mining companies have flattened nearly 500 Appalachian mountains across hundreds of thousands of acres, destroying or polluting more than 1,200 miles of streams and rivers in the process. (NRDC, 2010)

[2] Mountaintop removal (MTR) is a form of strip mining that involves using deforestation and explosives to remove a mountain's summit or ridge to access the coal underneath. In the U.S. it is mostly practiced in the Appalachian mountains, primarily in Tennessee, West Virginia, Virginia, and Kentucky.

By contrast, in this next example Repower America (i.e., Climate Reality Project) extols the virtues of the Clean Air Act and how it has protected Americans from harmful pollution (item 698):

> If one law helped shrink the hole in the ozone layer, most people would think it was good.
>
> If the same law helped save our forests from acid rain, removed toxic lead from our gasoline and lowered the number of our children developing asthma, most people would consider it great.
>
> And if that same exact law saved our country nearly $22 trillion over 20 years, most people would call it a landmark piece of legislation and a model of American leadership.
>
> **That law exists -- it's called the Clean Air Act** [emphasis in original]**.**

Frames in advocacy emails are often combined to both reinforce each other and the action being requested. In this example from LCV, the group quoted a supporter concerned about the impacts of climate change to bolster its request from supporters to vote for climate-related questions for an upcoming, town hall-style presidential debate between President Obama and Republican nominee Mitt Romney (item 591):

> We live in a state where climate change isn't some theoretical issue – it's a very real threat. Not only are we likely to see more dangerous hurricanes and greater erosion of our beaches because of climate change, but projections show that rising sea-levels will literally put much of this flat and sandy state under water. Environmental stewardship and the future of our children shouldn't be a matter of political debate. It should be a priority and a point of national pride. (LCV, 2012)

Movement/Organization Support framing was deployed in different ways by different types of organizations. As 1Sky's email announcing its merger with 350.org shows, climate groups sometimes deployed this frame to bolster the idea of a climate change social movement and the reader's role within it (item 798):

> **This movement will never have the money of the fossil fuel industry, so we'll have to use a different currency: people power** [emphasis in original]. People power means you. It means your friends and neighbors. It means hundreds of thousands of us across the country, uniting to transform our future.

> We can do it, and we'll need your help--that's why we'll be in close touch in the coming weeks and months about exactly how anyone and everyone can plug into this vital mission. (1Sky, 2011)

As this example from LCV shows, legacy environmental organizations often encouraged readers to identify closely with a particular organization, and paired their use of the Movement/Organization Support frame with fundraising appeals (item 573, all emphases in original):

> Being part of the League of Conservation Voters means so much more than the money you contribute – because **you won't just fund the campaigns that win big for the environment – *you'll be a part of them***.
>
> - **You'll help pick the 2012 Dirty Dozen** – the most egregious and vulnerable anti-environment offenders in Congress. You'll vote on the worst-of-the-worst – and then your donation will decide how far we can go to take them down.
> - **You'll help LCV take on corporate special interests.** Organizations like the American Petroleum Institute and the Koch brothers are spending millions to promote pro-polluter policies. With your support, we can organize and mobilize to expose their lies.
> - **You'll follow each critical campaign with us** – and when you reflect back on everything we achieve in 2012, you'll know that today's investment was one of the smartest choices you could have made for the environment. (LCV, 2012)

By contrast, climate organizations often paired their use of the Movement/Organization Support frame with requests for high-threshold, offline actions, as in this example where 350.org invites supporters to attend a "Moving Planet" event near them (item 812):

> But this movement does more than sign petitions: many of you stood strong in front of the White House risking arrest, and protesters on every continent have picketed outside embassies and consulates. That makes sense, for global warming is the one problem that affects everyone everywhere.
>
> And the next moment to prove that is Sept. 24 for Moving Planet -- the massive day of climate action that will unite people all over the world. We've heard news of amazing actions from every corner of the earth -— from a massive bike rally in the Philippines to an incredible eco-festival in Philadelphia. I truly can't wait to see the pictures pour in. (350.org, 2011)

Actions.

By far the most frequently recorded action was donations, comprising 25.3 percent of all actions. This includes one-time donations, membership renewals, donation requests on behalf of candidates, and all other fundraising solicitations. The next most-requested action was emailing Congress, with 12.1 percent, followed by contacting a federal agency, with 10.4 percent. Figure 4 illustrates shows that low-threshold actions comprised a significant majority of all actions requested, at 86.4 percent.

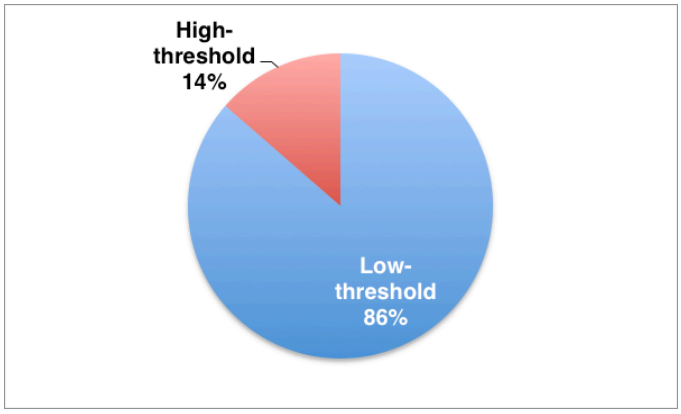

Figure 4. Proportions of High- and Low-Threshold Actions

Examples of action requests.

Although donations were the most request actions in the sample, different organizations approached this task in very different ways (see Table 9 for differences between types of organizations and requested actions). As this example from EDF shows, environmental groups often emphasized identification between themselves and the reader, how donations would support the organization's unique strengths, and its overall worthiness of financial support (item 372):

> From my 30 years in this field, and three years at EDF, I can truthfully say that few organizations speak with more scientific authority, or a more impressive scientific legacy, than EDF.

> No other environmental organization has a deeper bench of first-class scientists, or a record of using those scientists in the most effective way possible.
>
> **And with your gift to our 2011 EDF Annual Fund**, our scientists will able to expose more anti-science agendas and refute the resulting proposals [emphasis in original]. (EDF, 2011)

The tone of this example from 350.org is strikingly different, almost apologetic, in its request for donations (the email's subject line is: "A slightly awkward letter"). Like prior examples, it also emphasizes its preference for high-threshold, offline actions (item 794):

> Anyway—here's the bottom line: we most of all want you to be involved, to be leading actions and organizing events and shaking up the world. That's far more important to us than money.
>
> But if you also have any money to spare, we could make real use of it. We know it's been a tough year, so we're only asking you to give what you can. It'll be a tax-deductible donation, and every bit helps. (350.org, 2010)

Issues.

Climate change, by this or any other term, was mentioned in 59.7 percent of emails, while 36.8 percent of emails mentioned environmental issues other than those associated with climate in the codebook. These two categories never occurred together in the sample. Oil was the most frequently mentioned of the climate-related issues coded, with 46.7 percent. It was followed by clean energy with 35.1 percent, the EPA/Clean Air Act with 32.2 percent, and coal with 30.7 percent. Figure 5 illustrates the relative frequencies of all climate-related issues.

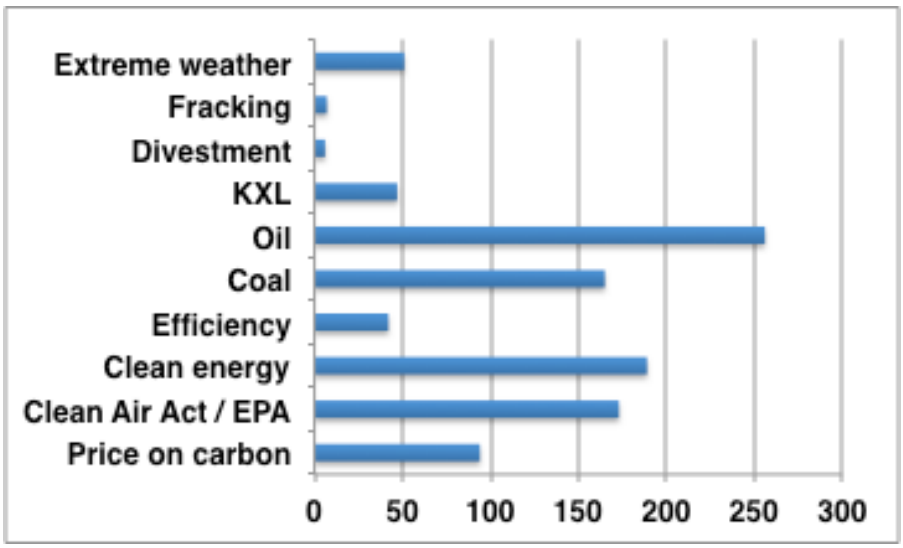

Figure 5. Frequencies of Climate-Related Issues

Change in action repertoire over time.

Legacy environmental organizations have been criticized in post-mortems of the 2009-10 climate legislation failure for relying on "checkbook advocacy" models that asked for little citizen involvement, and relied instead on a Washington-based "inside" game (Bartosiewicz & Miley, 2013; Skocpol, 2013). Meanwhile, as I demonstrated in Chapter 3, climate/web-native groups like 350.org have shown a preference for high-threshold, online-to-offline mobilization (Hestres, 2014). Has the environmental organizations' action repertoire changed after the climate bill's failure? Have climate organizations displayed the same action repertoire preference over time? Figure 6 shows that within the data set used in this chapter, 2010 was the high-threshold action high-water mark for both types of organizations. But while high-threshold actions requests by environmental organizations declined steadily yet sharply after 2010, high-threshold actions requests by climate organizations rebounded in 2011 and continued to rise in 2012. This pattern probably reflects both climate organizations' embrace of the anti-Keystone XL campaign, and the environmental organizations' shift in attention toward the EPA carbon regulation process.

This pattern is confirmed in Figure 7, which shows an increase in low-threshold action requests by environmental organizations that are most likely related to carbon regulations lobbying.

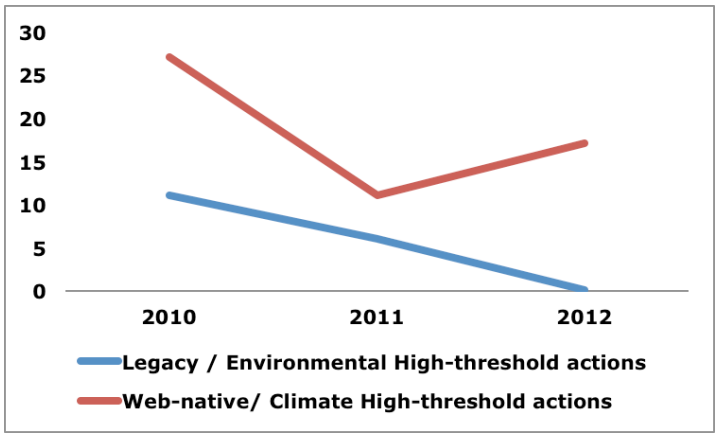

Figure 6. High-threshold Actions, 2010-12

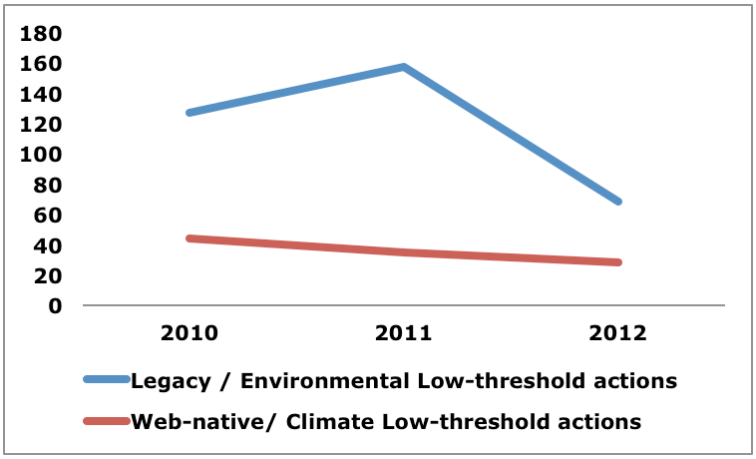

Figure 7. Low-threshold Actions, 2010-12

Focus on climate change.

Figure 8 shows the level of mentions of climate change in advocacy emails between 2010-12. These is a moderate, positive correlation between levels of climate mentions by both types of organizations over the two year period, $r = .33$, $p < .05$. Although the portion of emails mentioning climate change, as expected, is higher among climate than environmental organizations, their trend lines mirror each other somewhat closely. The high-water marks for both types of organizations were between March and September of 2010, when activists still

thought there was a chance to enact comprehensive climate legislation before the 2010 mid-term election. A second high-water mark between the election and late spring 2011 coincides with efforts to protect the EPA's authority to regulate CO^2 emissions from coal power plants and similar sources. A third spike, between late 2011-early 2012, coincides with mobilizations to stop the Keystone XL pipeline, while a fourth, in late 2012, coincides with the presidential election.

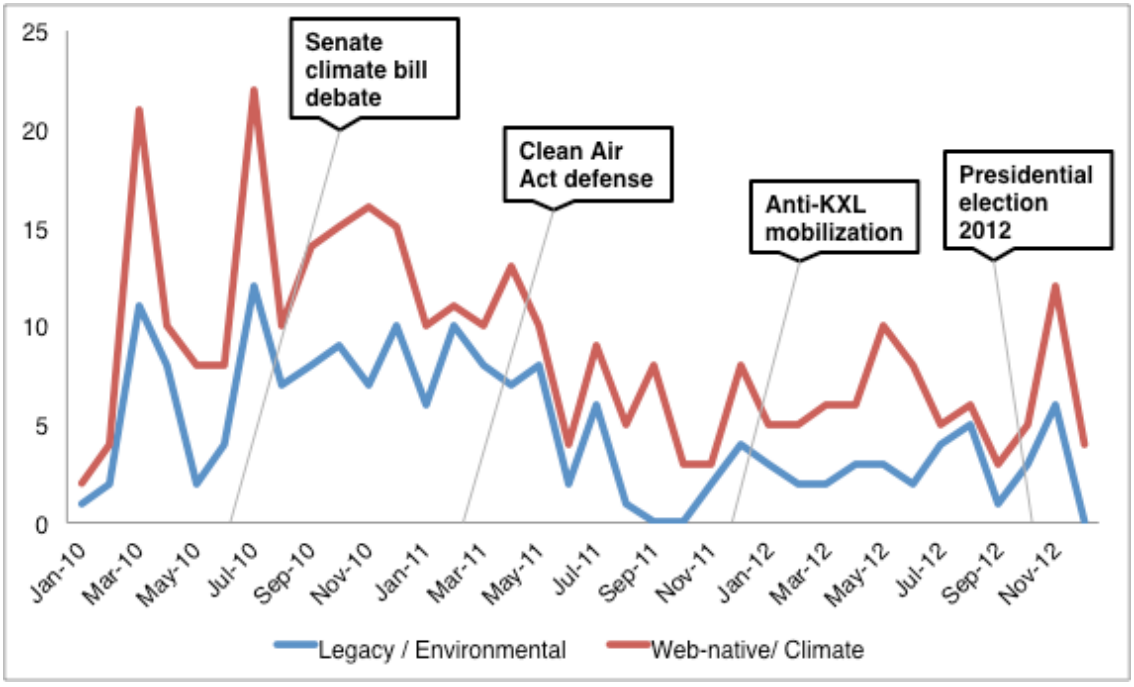

Figure 8. Levels of Emails Mentioning Climate Change, 2010-12

Finally, there is the question of how active individual organizations were on the climate change front between 2010-12. As expected, virtually all emails sent by climate organizations mentioned climate change. But there was considerably variability among environmental groups in this regard. Figure 9 shows that LCV and EDF far outpaced their environmental counterparts in climate-related emails, while Greenpeace USA sent a significantly lower number of emails mentioning climate.

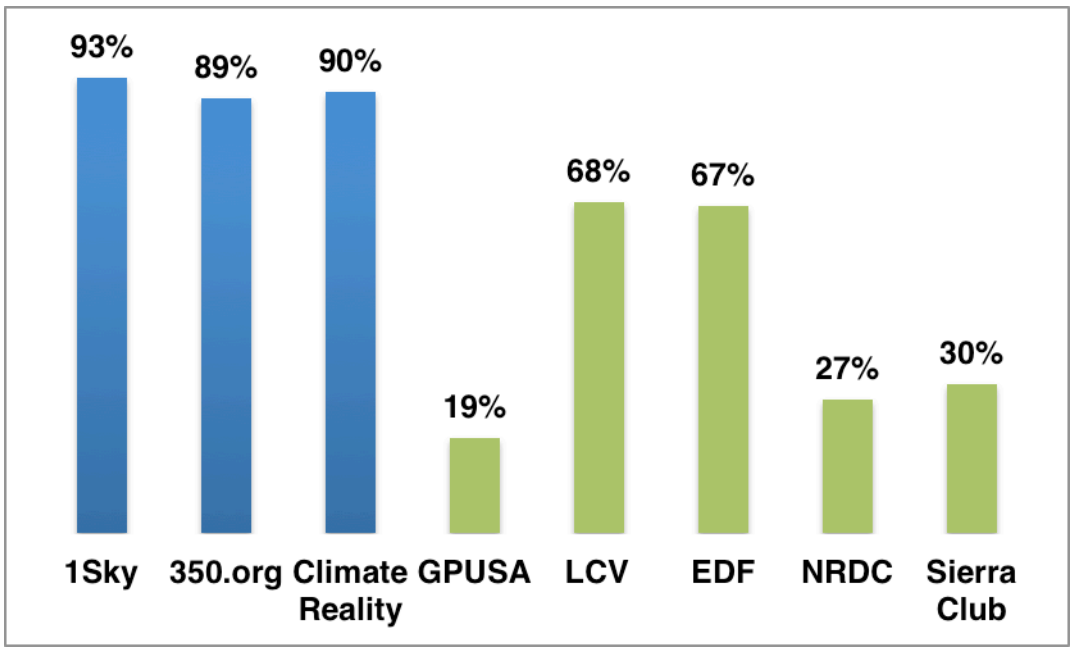

Figure 9. Percentages of Climate-Related Emails by Organizations

Research Questions and Hypotheses

RQ1: Are there significant differences in the use of motivational framing between climate and environmental advocacy organizations?

Significant differences were found between organizations and all three motivational frames. In order of the strength of the associations, the strongest was Movement/Organization Support, followed by Protection/Prevention, and Accountability/Support. Table 5 shows the distribution of frame deployment by each organization. It reveals similarities in use of the Accountability/Support frame by all organizations, but much variability in use of the Movement/Organization Support frame. For example, 350.org used the Movement/Organization frame in three out of four emails, while NRDC resorted to it less than 10 percent of the time. Three organizations used this frame the majority of the time, and while the rest did not, the margins vary substantially.

Table 5. Motivational Framing by Organizations

Motivational Frames	Present?	Climate/web native			Environmental/legacy					Total
		1Sky	350.org	Climate Reality	GPUSA	LCV	EDF	NRDC	Sierra Club	
Movement / Organization Support[a]	No	56%	25%	59%	48%	50%	56%	91%	83%	59%
	Yes	44%	75%	41%	52%	50%	44%	9%	17%	41%
Protection / Prevention[b]	No	63%	84%	59%	29%	62%	39%	23%	30%	50%
	Yes	37%	16%	41%	71%	38%	61%	77%	70%	50%
Account. / Support[c]	No	19%	31%	41%	26%	10%	39%	35%	20%	26%
	Yes	82%	69%	59%	74%	91%	61%	65%	80%	74%

a χ^2 (7, N = 538) = 102.392, p < .001.

b χ^2 (7, N = 538) = 96.772, p < .001.

c χ^2 (7, N = 538) = 34.840, p < .001.

These differences hold in relation to organization types. The strongest was Movement/Organization Support, followed by Protection/Prevention, and Accountability/Support. Table 6 shows that, while there are substantial differences between climate and environmental groups regarding the Movement/Organization Support and Protection/Prevention frames, they barely differed in their use of Accountability/Support.

Table 6. Motivational Frame Use by Organization Type

Motivational Frames	Present?	Organization Type		Total
		Legacy / Environmental	Web-native / Climate	
Movement / Organization Support[a]	No	67%	41%	59%
	Yes	33%	60%	41%
Protection / Prevention[b]	No	40%	73%	50%
	Yes	60%	27%	50%
Accountability / Support[c]	No	24%	32%	26%
	Yes	77%	68%	74%

a χ^2 (1, N = 538) = 42.821, p < .001.

b χ^2 (1, N = 538) = 48.713, p < .001.

c χ^2 (1, N = 538) = 4.199, p < .05.

H1a: Climate/web-native organizations will request a significantly higher level of high-threshold actions than environmental/legacy groups.

H1b: Environmental/legacy organizations will request a significantly higher level of low-threshold actions than climate/web-native groups.

Significant differences were found between the organizations in relation to the recoded Actions by Threshold variable. Overall, organizations requested more than six times as many low-threshold actions as they requested high-level ones. Sierra Club is the only environmental organization whose requests for high-threshold actions rises above 10 percent, while Climate Reality requested the lowest percentage of high-threshold actions, at 22 percent—still several points higher than Sierra.

Table 7. Actions by Threshold by Organizations

Actions by Threshold	Climate/web-native		Environmental / legacy						Total
	1Sky	350.org	RePower / CRP	GPUSA	LCV	EDF	NRDC	Sierra Club	
Low-threshold	70%	58%	78%	97%	97%	100%	99%	84%	86%
High-threshold	30%	43%	22%	3%	3%	0%	1%	16%	14%

Note. χ^2 (7, N = 538) = 107.387, p < .001.

The differences hold in relation to organization types,. Table 8 shows that more than a third of climate/web-native groups' action requests were high-threshold, while only one in twenty action requests from environmental groups were high-threshold.

Table 8. Actions by Threshold by Organization Type

Actions by Threshold	Organization Type		Total
	Legacy / Environmental	Web-native/ Climate	
Low-threshold	96%	66%	86%
High-threshold	5%	34%	14%

Note. χ^2 (1, N = 538) = 86.162, p < .001

Environmental groups also requested more low-threshold actions than climate groups by a margin of 30 percent. This reflects the extremely low level of high-threshold actions requested by NRDC, EDF, LCV, and Greenpeace, as well as 350.org's high level of high-threshold action requests. These results confirm H1a and H1b.

H2a: Environmental/legacy organizations will request donations to a significantly higher degree than climate/web-native organizations.

H2b: Climate/web-native groups will request donations to a significantly lower degree than environmental groups.

Significant differences emerged among the organizations in relation to the Actions (Collapsed) recoded variable. Donations comprised a quarter of all actions requested by all groups, followed by emails to decision-makers (18 percent), and generic online actions (15 percent). Donations comprised at least 15 percent of actions requested by all but two organizations: 350.org (6 percent), and NRDC (5 percent). Although offline actions comprised only 10 percent of the requested actions, they comprised 39 percent of 350.org's repertoire. These included requests to attend global days of actions like Moving Planet; attend a President's Day event in Washington DC; organize or join a local "referee squad" to "blow the whistle" on members of Congress who took large amounts of money from fossil fuel companies; join an

event in Washington DC to encircle the White House in protest of the Keystone pipeline; and requests to join the anti-Keystone pipeline civil disobedience campaign.

Table 9. Actions (Collapsed) by Organization

Actions (collapsed)	Climate / web-native		Environmental / legacy						Total
	1Sky	350.org	Climate Reality	GPUSA	LCV	EDF	NRDC	Sierra Club	
No action	0%	1%	0%	3%	2%	4%	5%	0%	2%
Generic	15%	20%	39%	7%	14%	23%	8%	4%	15%
Share, tweet, etc.	11%	13%	2%	0%	2%	4%	0%	4%	4%
Petitions	11%	16%	14%	19%	11%	7%	3%	10%	11%
Emails	15%	1%	0%	13%	9%	16%	50%	35%	18%
Contact agency	4%	1%	6%	3%	6%	12%	27%	16%	10%
Calls	15%	3%	6%	0%	2%	0%	1%	9%	4%
Donate	15%	6%	16%	52%	54%	35%	5%	15%	25%
Offline Actions	15%	39%	16%	3%	1%	0%	0%	7%	10%

Notes. χ^2 (56, N = 538) = 418.363, $p < .001$; ^ = low-threshold action(s); * = high-threshold action(s).

Significant differences also surfaced by organization type. Table 10 shows that environmental/legacy groups where more than three times as likely to request donations as their climate/web-native counterparts. Environmental groups requested more emails to decision-makers by a margin of 22 percent, while climate/web-native organizations outpaced environmental/legacy groups in offline action requests by a margin of 26 percent.

Table 10. Actions (Collapsed) by Organization Type

Actions (Collapsed)	Organization Type	
	Legacy / Environmental	Web-native/ Climate
No action^	3%	1%
Generic^	11%	25%
Share, tweet, etc. ^	2%	9%
Petitions^	9%	15%
Emails^	25%	3%
Contact fed. agency^	14%	3%
Calls*	3%	6%
Donate^	32%	10%
Offline actions*	2%	28%

Note. χ^2 (8, N = 538) = 180.497, $p < .001$. ^ = low-threshold action(s); * = high-threshold action(s).

This result is partly related to the large number of donation requests by Greenpeace USA and LCV, whose donation requests comprised more than half of their actions, and by EDF's requests, which made up more than a third of its actions. It is also influenced by 350.org's comparatively low frequency of donation requests, at only 6 percent. These results confirm H2a and H2b.

H3a: Environmental/legacy organizations will mention policies that restrict carbon emissions through legislation or regulation, and policies that promote clean energy and efficiency, to a significantly higher degree than climate/web-native organizations.

H3b: Climate/web-native organizations mention policies that restrict fossil fuel extraction through legislation or regulation to a significantly higher degree than environmental/legacy organizations.

There were significant differences among the organizations in relation to the three recoded variables created to represent mentions of policy categories—Cap CO_2 Emissions, Clean Energy & Efficiency, and No Extraction. In order of the magnitude of difference, the first was No Extraction, followed by Cap CO_2 Emissions, and finally Clean Energy & Efficiency. Cap CO_2 emissions was the policy cluster most often mentioned by organizations, with 44 percent, while No Extraction was the least mentioned, with just 11 percent. 1Sky mentioned Cap CO_2 and Clean Energy & Efficiency most often among climate groups, at 78 and 70 percent, respectively, while 350.org mentioned No Extraction the most, with 36 percent. Among environmental groups, EDF mentioned capping carbon most often, with 65 percent, while LCV led in mentions of clean energy, with 47 percent. No environmental group's mentions of No Extraction rose above 10 percent.

Table 11. Policy Categories by Organization

Policy type	Mention	Climate / web-native			Environmental / legacy					Total
		1Sky	350.org	Climate Reality	GPUSA	LCV	EDF	NRDC	Sierra Club	
No Extraction[a]	No	100%	64%	98%	97%	92%	100%	91%	91%	89%
	Yes	0%	36%	2%	3%	8%	0%	9%	9%	11%
Cap CO^2 Emissions[b]	No	22%	85%	57%	90%	47%	35%	58%	51%	56%
	Yes	78%	15%	43%	10%	53%	65%	42%	49%	44%
Clean Energy & Efficiency[c]	No	30%	62%	55%	90%	53%	70%	65%	62%	61%
	Yes	70%	38%	45%	10%	47%	30%	35%	38%	39%

Note. 1Sky merged with 350.org before high-profile No Extraction options like blocking the Keystone XL pipeline project were part of the climate debate.

a χ^2 (7, N = 538) = 74.646, p < .001.

b χ^2 (7, N = 538) = 72.552, p < .001.

c χ^2 (7, N = 538) = 29.061, p < .001.

But these differences did not all hold when tested with the organization type variable. No Extraction held the largest difference, followed by Capping CO^2. The difference between group types and Clean Energy and Efficiency was not significant (or at best marginally so). This lack of significance seems related to 1Sky's noticeably high level of mentions of this policy category, with 70 percent, coupled with Greenpeace USA's relatively low level of mentions, at just 10 percent. The significant differences among climate groups in the emphasis on No Extraction is due almost solely to 350.org's significantly higher number of mentions of this category, at 36 percent. Based on these results, H3a is confirmed for Cap CO^2 Emissions, but not for Clean Energy & Efficiency, while H3b is confirmed.

Table 12. Policy Categories by Organization Type

Policy Categories	Mention	Organization Type		Total
		Legacy / Environmental	Web-native/ Climate	
No Extraction[a]	No	93%	80%	89%
	Yes	7%	20%	11%
Cap CO^2 Emissions[b]	No	52%	66%	56%
	Yes	48%	34%	44%
Clean Energy & Efficiency[c]	No	64%	55%	61%
	Yes	37%	45%	39%

a χ^2 (1, N = 538) = 20.162, $p < .001$

b χ^2 (1, N = 538) = 9.388, $p < .05$

c χ^2 (1, N = 538) = 3.746, $p = .053$

Discussion

These findings confirm many of the assumptions behind the research questions and hypotheses I have pursued in this chapter, but also present some challenges to these assumptions. The most important top-level finding is that, while the organizations' online action repertoires differed according to the assumptions associated with their respective categories, their messaging

strategies and policy emphases deviated from those assumptions. As expected, climate/web-native organizations emphasized high-threshold actions and eschewed fundraising, while environmental/legacy groups overwhelmingly requested low-threshold actions and requested donations at a much higher level than their counterparts. These results make sense for most climate groups, given their reliance on foundations and large individual donors, and a social movement orientation that would value offline, grassroots mobilization. They also make sense for most groups in the environmental/legacy category because almost all environmental organizations profiled here were established during the advocacy boom of the late-60s to early 70s, and have been associated with the "armchair" or "checkbook" activism model that focuses on fundraising to subsidize professional advocacy. These results confirm some of the theoretical characteristics of Internet-mediated advocacy organizations (Bimber et al., 2009; Chadwick, 2007; Karpf, 2012), but also qualifies the appearance of some of these characteristics for single-issue advocacy groups. They also highlight the relationship between the appearance of these characteristics among single-issue advocacy groups and the context—i.e., the advocacy ecosystems—within which they operate.

The use of motivational framing by both types of groups displayed unexpected similarities. As expected, climate organizations favored appeals based on movement solidarity more than their counterparts, while environmental groups deployed protection and/or prevention appeals to a significantly higher degree than climate groups. These results make since given the social movement orientation that most climate group online strategists described, as well as the focus on scientific and policy expertise of environmental groups like NRDC and EDF. But contrary to expectations, the organizations' use of motivational framing based on decision-maker accountability and/or support was strikingly similar. This reveals remarkable discursive unity

between the two types of groups around what has traditionally been considered a populist and confrontational rhetorical devise. The roots of this similarity may lie in a combination of the climate issue public's innate progressive leanings, and the environmental roots of the climate movement, and the progressive political leanings of both types of organizations.

Although this study features a reasonably large-N in terms of the number of units analyzed, the relatively small number of organizations examined makes it susceptible to categorical differences based on individual organizations that register as outliers for different variables. For example, 350.org's lop-sided results on the No Extraction value of the policy variable pulls the climate/environmental groups category in that option's direction, as does its comparatively large number of offline action requests. While most of the categorical assumptions of the study were confirmed, some of those differences are based on individual groups with stronger tactical preferences than their fellow category members. This highlights an important analytical requirement when studying advocacy ecosystems: We must pay as much attention to individual groups' tendencies as we do to categorical distinctions in order to correctly discern the relationship between those distinctions and online tactics.

Although the theories of change espoused by interviewees in the previous chapter were largely confirmed by the results reported above, several organizations did not fully conform with their corresponding theories. Greenpeace is the most surprising case: Its low level of high-threshold action requests, high level of donation requests, and low frequency of climate-related emails contradict the grassroots orientation claimed by interviewees in the previous chapter. There may be several explanations for this disconnect. Greenpeace may be primarily recruiting supporters for high-threshold actions through alternative channels, including its relatively new Mobilisation Lab initiative, while treating its traditional email list as a vehicle for low-threshold

actions and fundraising—a dynamic would not be detected in this study. The low level of climate-related emails is less surprising, given its lack of support—though not active opposition—to the comprehensive climate legislation moving through Congress in 2010. Having little positive to say about these bills, which dominated the climate debate for virtually all of 2010, the organization may have chosen to no contradict its environmental and climate allies too publicly through its email list, essentially hewing to the old adage of not saying anything at all if one has nothing good to say about a subject.

A similar dynamic may be at play in the case of Sierra Club, which also displayed a lower level of high-threshold actions than the grassroots orientation claimed by interviewees would have predicted. Because of its chapter-based structure, Sierra may be recruiting supporters for high-threshold actions primarily through its chapters, as opposed to national emails—a dynamic that also would have eluded this study. This dynamic may also affect Sierra's climate-related email frequency. Greenpeace and Sierra Club highlight the methodological limits of national advocacy email tracks (at least for some organizations), and the need to incorporate more state-based and local advocacy email tracks in future studies of mass email-driven advocacy.

EDF and Climate Reality also contradicted to some extent the theories of change that interviews and organizational histories suggest they embrace. EDF's frequent use of the Accountability/Support motivational frame was surprising given its professed moderation, eagerness to work with corporate partners, and expressed interest in attracting audiences outside the climate issue public. Based on my informal impression formed during coding, EDF seemed to deploy surprisingly confrontational language toward corporations it held responsible for climate pollution. It is possible that EDF has made the calculation that this language works best

for the particular audience that subscribes to their email list, even as it communicates differently through other online and offline media. Nevertheless, this apparent disconnect between professed theories of change and advocacy practice requires further exploration.

Similarly, Climate Reality's organizational history and level of resources would have suggested behavior more closely resembling environmental organizations than its fellow climate groups. Instead, Climate Reality's rate of high-threshold action and donation requests are more comparable to 1Sky's than to environmental groups. Based on my informal impression formed during coding, Climate Reality's comparatively high rate of offline action requests is tied to its reorientation as primarily a climate education organization, with its volunteer climate presenters as the centerpiece of its advocacy. It is in a way a continuation of its earlier opinion leader-centered campaign (Nisbet & Kotcher, 2009), but more closely aligned with a participatory public sphere model.

Collectively, these findings suggest that, while the web-native/legacy dichotomy is useful, there are limits to this usefulness. Contingencies must be made in studying advocacy ecosystems—especially emerging ones like the climate community—to accommodate the growing hybridity that characterizes contemporary advocacy organizations. As both web-native and legacy organizations continue to evolve and assimilate each other's traits, there may come a time in the not-too-distant future when this dichotomy ceases to be analytically useful. Researchers must keep a close eye on these continuously evolving advocacy ecosystems, and adjust their theoretical approaches accordingly to keep them relevant. This is the one constant for virtually all Internet-related research that will not change anytime soon.

CHAPTER 5

INFRASTRUCTURE: PRIVATE INFORMATION INTERMEDIARIES AND ADVOCACY ORGANIZATIONS

Introduction

The previous chapters focused on the relationship between different types of advocacy organizations and their online communication and mobilization practices. This chapter focuses on the technological context within which this advocacy occurs: how the online tools on which strategists rely shape their advocacy work, and how strategists perceive their engagement with these tools.

Below I will discuss the relationship between what Internet governance scholars have called private information intermediaries, which can be defined as "private systems that do not provision actual content but rather facilitate information or financial transactions among those who provide and access content" (DeNardis, 2014, pp. 153-172), and the work of advocacy groups. The term includes search engines, social networking sites, financial intermediaries, blogging platforms, recommendation engines, and similar platforms and services that mediate between users and content.

Discussions of private information intermediaries have so far revolved around well-known platforms and services familiar to most Internet users, including social networking services like Facebook and Google+, microblogging services like Twitter, search engines, mobile apps, image hosting and sharing services like Flickr, location-based services like Foursquare, and others. But advocacy organizations and campaigns also rely on intermediaries less well-known to the general public, such as proprietary and open-source content management systems (CMS), constituent relationship management (CRM) software, web hosting services, and Software as a Service (SaaS) companies that provide everything from database-generated mass email "blasts"

to online donation processing, event management, petitions, and related advocacy functions. The combination of these specialized advocacy tools (Nielsen, 2011) and better-known private information intermediaries is central to Internet-mediated political advocacy.

Activists have eagerly incorporated this new crop of tools and services into their work (Dana R. Fisher & Boekkooi, 2010; Hestres, 2014; Khondker, 2011; Obar et al., 2012; Youmans & York, 2012). But these private information intermediaries can increasingly determine how citizens and activists engage politically online through the technical architectures and policies they choose to implement—a phenomenon that can often disrupt the work of activists. Such disruptions could have significant consequences for the conduct of political advocacy, particularly if they become widespread and systematic.

This chapter probes various aspects of the relationship between private information intermediaries and the work of advocacy organizations. Based on in-depth interviews with present and former online strategists at several U.S. climate change and environmental advocacy organizations, it addresses the strategic importance and uses that online strategists assign to private information intermediaries; the distinctions they make (or do not make) between different types of intermediaries; their experiences using these tools as they relate to privatized Internet governance and their responses to such experiences; their perceived need to use these intermediaries to conduct their work and ability to use alternative tools; and their levels of concern about data security, monetization of user data, lock-in effects, and other related issues. Among other findings, interviews revealed a low level of awareness of various aspects of privatized Internet governance that are the subject of much Internet freedom scholarly and policy debate. They also indicate significant dependence on certain types of private information

intermediaries, and a broadly shared sense of a strategic necessity to embrace these tools, despite the comparatively low levels of control organizations can exercise over them.

Specialized and Non-Specialized Advocacy Intermediaries

Most advocacy organizations rely on intermediaries over which they have both high and low levels of control and agency. Intermediaries that typically provide high levels of control include online constituent relationship management (CRM) systems, content management systems (CMS), software as a service (SaaS) advocacy platforms that provide database-generated mass email capabilities and ways to communicate with decision makers (petitions, emails, letters to the editor, etc.), and related tools.

Although many of the functionalities these intermediaries provide are only accessible internally to organizational staff, these tools and services also mediate informational or financial transactions between organizations and their supporters, organizations and targets of advocacy efforts (e.g., lawmakers, corporations, media outlets), and citizens and decision-makers. For example, when an advocacy organization with hundreds of thousands of supporters launches an email campaign directed at the president, it will not typically contact each supporter individually through an email client like Microsoft Outlook, asking them to email the White House. Instead, it will use a private information intermediary (typically a SaaS company like Convio or Salsa Labs) to contact its supporters through a massive, database-generated email "blast" that reaches supporters individually. Supporters are then asked to visit a web form (also provided by the intermediary) through which they can email the White House. The intermediary delivers the individual messages to the White House, while providing the organization with useful information about email open rates (total emails sent divided by emails opened), click-through rates (emails divided by clicks on the action link), completion rates (emails divided by completed

actions), and related data. Thus, in addition to functioning as internal tools, these intermediaries also qualify as private information intermediaries as they are commonly understood.

Whether open-source or proprietary, organizations have a comparatively high degree of control over their use of these intermediaries. They can choose from a variety of commercial vendors, choose open source solutions and rely on in-house expertise or consultants to customize them, or a combination of both. The money they pay for these tools and services guarantees a certain level of responsiveness when technical or policy issues arise. And the financial incentives for vendors and consultants that cater to the nonprofit market encourage them to consider the advocacy community's concerns during the development and deployment of new technical features or policies governing use of their products. An organization can exercise even more control by employing technology consultants or in-house developers to customize open-source tools, or extend the functionalities of commercial advocacy packages by taking advantage of their application program interfaces (APIs).

By contrast, activists have a much lower degree of control and agency over their use of popular intermediaries like Facebook or Twitter. Advocacy organizations can create Facebook profiles, Twitter accounts, YouTube channels, and similar online intermediary profiles, usually free of charge, which gain them access to widely-used intermediaries with sophisticated user interfaces and features that can increase supporter recruitment, action rates, and fundraising. In exchange, the content and community interactions they co-generate with their supporters contribute to the stickiness of these sites and services. This process adds more user data to that already being collected by the likes of Facebook, Twitter, and Google, which they monetize through advertising and related enterprises.

Because these intermediaries provide access at no visible cost, cater to a much wider audience of individuals rather than organizations, and embrace business models that revolve around monetizing user data, advocacy groups cannot count on the same level of responsiveness to their concerns from these companies. Even if they employ consultants or in-house developers to take full advantage of their APIs, organizations are still subject to the policies and technological architectures that intermediaries choose to deploy, and which will inevitably privilege stickiness, user data collection, and monetization.

To facilitate this discussion, I will refer to the two types of intermediaries I have described above as either *specialized advocacy tools* or *non-specialized advocacy tools*. *Specialized advocacy tools* are intermediaries that organizations use to conduct advocacy, have been developed mainly to conduct advocacy or can be customized extensively for this purpose, and over which activists have a comparatively high degree of control and agency. *Non-specialized advocacy* tools are intermediaries that organizations also use to conduct issue advocacy but have *not* been developed primarily to conduct advocacy and cannot be customized extensively for this purpose, and over which activists have a comparatively low degree of control and agency. Table 1 provides a summary of this typology.

Table 13. Specialized and Non-Specialized Advocacy Intermediaries

	Specialized Advocacy Tools	Non-Specialized Advocacy Tools
Features	• Used for advocacy • Built or customized for advocacy • More control over technical architectures & policies	• Also used for advocacy • Not built originally for advocacy • Less control over technical architectures & policies
Examples	• Content Management Systems (CMS; WordPress, Drupal) • e-Constituent Relations Management (eCRM) systems (SalesForce, Insightly) • Software as a Service (SaaS) advocacy platforms (Salsa, Convio, ActionKit)	• Social networking sites (Facebook, Google+, LinkedIn) • Microblogging services (Twitter, Tumblr) • Video hosting and sharing (YouTube, Vimeo, Vine) • Image hosting and sharing (Flickr, Instagram, Pinterest)

Given the variety of specialized advocacy tools available to activists, this typology may not cover every single intermediary used for advocacy. For example, some web hosting or SaaS companies may not offer as much control as others over how their services are used, or advocates may choose tools that are neither built for advocacy nor highly customizable. The typology is also not meant to suggest that organizations using specialized intermediaries are completely unfettered in their use, while being completely hamstrung in their use of non-specialized intermediaries. Nevertheless, these categories are sufficiently distinct to be analytically useful. The key distinction is between the *relative* levels of control and choice that activists have over one type of intermediary vs. the other.

Method

I chose my respondents based on the key roles they have played in planning or executing online communication and mobilization strategies for their respective organizations. They include professionals who have worked in government, political campaigns, online strategy consulting firms, and advocacy organizations. I conducted at least one interview with a current or former staffer of each organization, and in some cases I secured multiple interviews. This chapter features interviews secured with 350.org, the 1Sky campaign, Energy Action Coalition (EAC), Environmental Defense Fund (EDF), Greenpeace USA, Sierra Club, and Natural Resources Defense Council (NRDC). Not all interviews are quoted in this article to avoid duplicative responses. Questions revolved primarily around non-specialized intermediaries because they play a much larger role in privatized Internet governance than specialized advocacy tools. Questions revolved primarily around non-specialized tools because they play a much larger role in privatized Internet governance than advocacy tools. The questionnaire that produced data for this chapter and Chapter 3 is available in Appendix A.

Interviews with Online Strategists

Differing Conceptual Distinctions of Intermediaries

None of the respondents were familiar with the conceptual category of private online intermediaries as Internet scholars and experts have come to think of them, whether by this or any other name. The conceptual distinction between specialized and non-specialized advocacy tools was also irrelevant, by these or any other names. Instead of recognizing private information intermediaries as a conceptual category, or differences among different types of intermediaries in relation to privatized Internet governance, respondents viewed these tools strictly through the lens of their utility for different communicative and mobilization purposes. Virtually all

strategists reported a high level of reliance on private information intermediaries to communicate with supporters and other potential audiences, but their strategic use of different *types* of intermediaries varied considerably.

Most strategists reported using non-specialized tools (primarily social networks like Facebook and Twitter) to engage with their supporters and new audiences, but not nearly as much for mobilization; specialized advocacy tools—especially database-generated email blasts—are still the tools of choice for the latter purpose. Comments like "there's not replacing email," "email is the killer app," "email is definitely not dead," and "email never went away," surfaced in virtually all interviews. "I would say social media platforms are not particularly useful for mobilization, and I really don't find that any other organizations feel otherwise," said Sierra Club's director of digital innovation Michael Grenetz (Personal communication, October 30, 2013). David Acup, senior director of interactive marketing & membership at EDF, also emphasized the primacy of email and websites as drivers of action:

> I would say that social media sites are complementary to what we do, but for the most part we are using our website and our email list…our direct channels are the ones we rely on most. Social media complement what we're doing, but they're not the bulk of what we're doing. It's just the way our membership wants to be engaged. (Personal communication, October 21, 2013)

NRDC email coordinator Liz Langton confirmed this broadly-shared view, but also contrasted the potential that each type of tool has to reach different audiences:

> When we're reaching out via email, it's definitely more targeted…to our existing audience. Whereas on Twitter—more so Twitter and somewhat Facebook—it's a bit broader in that it can reach new audiences a little bit easier than through email… [Social media] is very effective to reach new people. (Personal communication, January 7, 2014)

The importance that these strategists attach to non-specialized tools (especially social networking sites) as outreach and engagement tools is perhaps best exemplified by Sierra Rise, a

new project from the Sierra Club that provides attractive and easily shareable social media content meant to reach new audiences (sierraclub.org, 2014b). The site offers compelling images with overlaid text, videos, and other online artifacts related to Sierra Club messages and campaigns, along with tools to share them easily via intermediaries like Facebook or Twitter. In its purpose, design, and functionality, Sierra Rise closely resembles Upworthy, a viral content site co-founded by former MoveOn.org executive director Eli Pariser and Peter Koechley, former managing editor of The Onion (Carr, 2012). "Sierra Rise is mostly focused on what's going to get our community to share with a secondary audience to get them to join what we're doing," said Sierra Club's Grenetz (Personal communication, October 30, 2013).

But the opinions expressed above were not unanimous. Former NRDC online director Apollo Gonzales, now a project principal at digital strategy consulting firm EchoDitto, sees great potential for non-specialized intermediaries to fulfill at least some of the strategic functions that have traditionally been conducted through specialized advocacy tools—precisely because of their ability to reach new audiences:

> You're going to reach your audience with email, but I don't feel we ever saw really effective sharing or tell-a-friend use via email.[3] The number of tell-a-friends were always abysmal… Now you can put a 'share on Facebook' or 'tweet this' button at the end of an email or an action page…and people *are* telling a friend, it's just not *called* tell-a-friend. And I think that's where social far outpaces email: exposure to new audiences [emphasis in original]. (Personal communication, November 11, 2013)

Coping With Rapid Intermediary Innovation

Because advocacy organizations can exercise a much lower level of control over non-specialized intermediaries than they can over their specialized counterparts, the policies and technological architectures deployed by the former can disrupt the work of these organizations to a greater extent than those deployed by the latter. Interviews revealed that disruptions do occur,

3 "Tell-a-friend" is a functionality common to virtually all advocacy platforms. After a supporter has taken an online action (e.g. signed a petition, or signed up for an event), she is taken to a web page where she can share the action with her contacts by either manually entering their email addresses or importing them from her address book.

but take on a wide variety of forms—as do organizational responses, which can sometimes turn disruptions into tactical advantages.

One of the most pervasive disruptions is the constantly evolving nature of non-specialized intermediaries like Facebook and Twitter. These companies must continuously fine-tune their platforms to retain and grow their audiences, entice them to spend more time using their services, and share more information through them. Since these companies cater to an audience overwhelmingly interested in apolitical social interactions (Nadkarni & Hofmann, 2012), they have little incentive to accommodate the needs of advocates or their ability to cope with their rapid pace of innovation. By contrast, intermediaries that provide specialized tools like website hosting, eCRM systems, or advocacy platforms, tend to have longer software development cycles that involve advocacy communities in the process. These vendors have an incentive to cater to the advocacy community and involve it in the development cycle because it is their primary customer base.

The rapid pace of innovation characteristic of non-specialized intermediaries can impose costs on advocacy organizations, both in terms of time and money. EchoDitto's Gonzales specifically identified both the high frequency of change of non-specialized tools, and the lack of transparency of their development calendars, as disruptive to organizations (Personal communication, November 21, 2013). Liz Langton revealed that NRDC employs outside experts to help it optimize its use of Facebook.

> Facebook is nuts! They change, it feels like, every other week. We have an outside firm that helps us keep up to date on all the changes and we're constantly reconfiguring what we do and how we do it in order to meet the outreach numbers that we expect. We do spend time and money making sure we are using the tools accurately and appropriately (Personal communication, January 7, 2014)

Organizations with multimillion dollar budgets like NRDC may be willing and able to make these expenditures, but organizations with fewer resources often have fewer choices. These choices include ephemeral hacks that can temporarily relieve disruptions, but are unlikely to solve them permanently. EAC's digital director Jeff Mann reported an instance when another EAC staffer discovered a way around a Facebook restriction on how many supporters could be invited to an event. If EAC (or any other organization) wished to invite all its supporters to an event, doing so without this workaround could be a time-consuming chore. But shortly after the workaround had been implemented, Facebook changed its events tool yet again, rendering the workaround useless.

Content Censorship in Intermediary Platforms

Some strategists recalled instances when non-specialized intermediaries disrupted their work more directly by censoring content. Greenpeace USA online organizer Dionna Humphrey recalled two such instances of censorship:

> We did try to run some ads on LinkedIn once that were rejected because of the content, and it was a little suspect that they rejected our ad because there was nothing controversial about the content. We've had that a couple of times on Facebook as well, when Facebook as turned down our ads. (Personal communication, October 29, 2013)

Greenpeace received no satisfactory explanations for the ad rejections from Facebook or LinkedIn (unfortunately Ms. Humphrey was not able to provide the ad's content for review). Both companies have teams of employees that review ads and decide whether to accept or reject them, so their rejections cannot be blamed on automated processes. But the companies' respective advertising guidelines may provide clues as to the reasons behind the rejections.

Of the two companies, LinkedIn's advertising guidelines is the most explicitly restrictive when it comes to content (LinkedIn, 2014). Under the heading "Provoking, Offensive or Discriminatory," the company issues the following guideline:

> **Hate, Violence, Discrimination and Opposition:** Even if legal in the applicable jurisdiction, LinkedIn does not allow ads that include hate speech or show or promote violence or discrimination against others or are personal attacks on any individual, group, company or organization or otherwise advocating against or targeting any individual, group, company or organization [emphasis in original]. (LinkedIn, 2014)

Although Humphrey claims that "there was nothing controversial about the content," it is hard to imagine any ad that reflected Greenpeace's typically blunt, anti-corporate approach passing muster under this particular guideline. The guideline seems restrictive enough to preclude a wide range of political advertising, including corporate campaigns like the ones that have made Greenpeace famous.

Facebook's guidelines do not explicitly restrict advocacy ads as do LinkedIn's, but the company reserves itself such discretion in the approval or rejection of ads that it would be difficult to contest an advocacy ad rejection: "Facebook reserves the right in its sole discretion to determine whether particular content is in violation of our community standards" (Facebook, 2013). Since some private information intermediaries have shown a tendency to censor content within their platforms in order to avoid political controversies (Benkler, 2011; Hestres, 2013), these rejections represent additional instances of a worrisome trend in privatized Internet governance that is exacerbated by the growing dependence of advocacy organizations on non-specialized intermediaries.

But online strategists are not entirely devoid of agency in situations when they face outright content censorship from non-specialized intermediaries. Such cases may lend

themselves to creative, jujitsu-like advocacy tactics that turn intermediary disruptions into net positives for an organization.

The Sierra Club's Grenetz recalled such an instance: In 2013, Fwd.Us, a pro-immigration reform organization co-founded by Facebook CEO Mark Zuckerberg, launched an ad campaign supporting key U.S. senators who supported the Keystone XL pipeline project, under the assumption that strengthening them politically would eventually allow them to support immigration reform (Sengupta, 2013). In response, Credo Mobile, a progressive and politically active mobile services company, created a Facebook ad criticizing Zuckerberg for Fwd.Us' promotion of Keystone XL—an ad that Facebook promptly banned (Rowell, 2013).

It was then that Sierra Club became involved. "When [Facebook] censored the ad," said Grenetz, "we did a campaign about it—and it blew up"—meaning that it was very successful (Personal communication, October 30, 2013). This is an example of an advocacy organization turning an instance of censorship suffered by a like-minded organization into a successful advocacy opportunity. Although in this particular case it was not Sierra Club's content that was censored, Facebook's censorship may have brought the issue greater attention than it would have otherwise received had it simply approved the ad.

Ideological Affinity and Tool Choice—or Lack Thereof

The Credo/Fwd.Us episode highlights another difference between specialized and non-specialized intermediaries: Specialized tools allow organizations much greater flexibility in choosing intermediaries that broadly share their ideological leanings and goals.

Large technology services and consulting ecosystems cater to the two main ideological factions of American politics. Companies like Salsa Labs, M+RSS, ActionKit (founded by former MoveOn.org staffers), Blue State Digital, EchoDitto, and many others, offer a wide range of

online communication and mobilization services, including design, web development, software as a service, and strategy consulting, exclusively to liberal organizations and Democratic political campaigns. A similar ecosystem exists for the conservative side, although on a more limited scale (see Karpf, 2012 for more on ideologically-aligned techology ecosystems). Organizations can therefore obtain technology services from vendors they feel will not contract with clients that oppose the organization's values or contravene those values in their corporate practices. For instance, the Human Rights Campaign, an organization that promotes equality for the LGBT community, will most likely hire technology vendors and consultants that do not discriminate against this community in their corporate practices, or work with organizations like the Family Research Council, which opposes equality for the LGBT community. Respondents indicated that their organizations exercise such choices whenever possible. Michael Silberman, global director of Greenpeace's Mobilisation Lab project, described how Greenpeace would not sign a contract with Salesforce.com, a CRM widely used in the nonprofit world, until it pledged to move away from the "dirty cloud"—a pejorative term for cloud computing systems that rely on coal power plants to meet their energy needs—and instead embrace clean energy (Personal communication, October 18, 2013; Jones, 2013).

Advocacy organizations do not have this level of flexibility in relation to non-specialized intermediaries. Because a relatively small number of such intermediaries have built massive market shares in their respective niches—Facebook in social networking, Twitter in microblogging, Google in search and its YouTube division in video sharing—and have become intertwined in a social media ecosystem to which users have become accustomed, advocacy organizations have little choice but to maintain profiles in these services, regardless of their corporate practices or the political leanings they might display. This can sometimes put advocacy

organizations in the awkward position of using non-specialized intermediaries to campaign against some of these very intermediaries—case in point, Facebook's ban of Credo's anti-Keystone XL ad.

Strategists revealed a sense of acceptance or even resignation to this situation. Regarding Facebook, Greenpeace's Humphreys said, "there's nothing else like it…there still isn't another option. That's where the conversation is happening, so in order to be relevant, we *have* to be there" (Personal communication, October 29, 2013). Similarly, EAC's Jeff Mann said that his relatively small organization depends on social media "a ton" because "we're going where people are" (Personal communication, November 8, 2013). Garth Moore, former Internet director at the 1Sky climate campaign and currently with the One anti-poverty campaign, concurred with the necessity of using these tools:

> Our ethos is that these are free tools and we're lucky to have them to expand our outreach. We've not been thrilled with Facebook's constantly changing algorithms or Twitter's lack of metric tools. But overall, we continue to publish and engage as much as possible and worry more about message and marketing efforts. (Personal communication, January 22, 2014)

Technological Architecture, Intermediaries, and Lock-In Effects

Even if viable alternatives to the dominant, non-specialized intermediaries became available, lack of data portability could make migrating across platforms a difficult, if not impossible, task (as would be the case for individual users). Private intermediaries like Facebook, Yahoo, and Google have discussed and tried to develop common standards for data portability, but no standards exist today that would allow users or organizations to easily migrate all their data and interactions from one social media platform to a comparable alternative (Bojars, Breslin, & Decker, 2008). Advocacy groups may experience a lock-in effect similar to that of individuals who have invested too much time and effort curating their profiles and accumulating online interactions in one platform to switch to another.

Attitudes regarding this prospect varied among respondents. Some characterized the potential need to migrate or rebuild communities developed through non-specialized intermediaries as daunting, while others were more sanguine about the prospect. NRDC's Langton fell in the latter camp:

> If we had to change platforms…let's say Facebook ended tomorrow and this new platform opened up, we'd have to figure out a way to rebuild that audience. That doesn't necessarily scare me because I figure we would all be on the same boat. It would just be a necessary annoyance. (Personal communication, January 7, 2014)

Greenpeace USA's Dionna Humphreys expressed the opposite view, and emphasized the challenges of potentially migrating from a major social networking platform like Facebook or Twitter to a hypothetical alternative:

> For a big organization like us to consider…let's say somebody came up with the new Facebook, we wouldn't just jump ship, for sure…we'd have to see what it's about before making a decision like that. If we were talking about using Instagram video vs. Vine, that's pretty insignificant. But it there were a new Twitter or a new Facebook, it wouldn't be an instantaneous decision for sure. (Personal communication, October 29, 2013)

The One campaign's Moore also described an approach that prioritizes certain non-specialized intermediaries over others:

> We rate our networks into tiers: Tier one is Facebook; Tier two is for Twitter and YouTube; Tier three is for Google Plus, LinkedIn, Instagram, Pinterest, and Vine… It would be extremely difficult [to migrate from] Facebook and Twitter, given our large volumes and high engagement rates. Tier three and below would be acceptable to replace or lose simply because overall engagement is so low. (Personal communication, January 22, 2014)

Unsurprisingly, the possibility, however unlikely, that key social networking platforms like Facebook may one day disappear or stop providing key user interaction data—a less improbable scenario—has crossed the minds of strategists. (It is worth remembering cases where very popular intermediaries suddenly became unpopular and irrelevant, or radically changed

their focus—e.g. MySpace, Friendster, the original Digg.) But interviews revealed no belief that these platforms should facilitate such transitions, despite the contributions that advocacy organizations make to their social and interest graphs. EchoDitto's Gonzales laid the responsibility on organizations (or clients, from his current perspective) to exercise discipline in data collection and preservation.

> If you are disciplined about the data that you are collecting… and make sure that you are getting that data out of the system, then when things change you can go back to both your strategy and the data that you pulled and recreate whatever needs to be done. If Facebook decides tomorrow that they're no longer going to report age demographic information on the people on your page—that sucks. But if you've been disciplined in the way you hold on to your data, you should have something that you can go back to that says, "this is what our audience looked like yesterday…" Then you can go into it with eyes wide open that you could lose everything tomorrow. (Personal communication, November 21, 2013)

But the ability of organizations to exercise such data collection and preservation discipline may depend on their resources. Large organizations with multi-million dollar budgets, like the Sierra Club or NRDC, could dedicate enough staff time to these tasks, or simply automate them, while smaller organizations, like EAC, may have to risk losing valuable data due to lack of resources.

Privacy, Data Security, Monetization, and Related Issues

The privacy and personal data security of users across various information intermediaries is an ongoing concern of policy experts and Internet studies scholars (Fuchs, 2011; Montgomery, 2013; Waters & Ackerman, 2011; Zimmer, 2010). Constantly shifting privacy settings, invasive user data monetization strategies, data security vulnerabilities, and shifting notions of privacy among younger users are just some of the issues that are front and center in Internet research and policy agendas. Revelations of the National Security Agency's (NSA) vast, ongoing online

surveillance programs, divulged by former NSA contractor Edward Snowden in 2013, have only heightened these concerns.

But such concerns did not register as high priorities among respondents in relation to their use of private information intermediaries for advocacy. This is not to suggest that respondents are not concerned on a personal level about issues like online privacy or surveillance. Given their generally progressive leanings, it is reasonable to assume that, if asked their personal opinions about them, they would express high levels of awareness and concern. Rather, it is to say that they do not see these concerns as relevant to their use of non-specialized advocacy intermediaries in the context of their work. EDF's David Acup said:

> We haven't had any issues around privacy. The information that you can get out of Facebook is relatively modest, so the amount of data mining and analysis that we can do on those tools is pretty modest. So there isn't any invasion of privacy there, at least not that we've seen or heard. (Personal communication, October 21, 2013)

Acup also discussed rising annoyance among online users with "retargeting"—the use of cookies and JavaScript to follow online audiences across multiple websites with ads that are supposedly relevant to them based on goods and services they have showed interest in before. But he did not raise privacy concerns that are commonly associated with this practice (Helft & Vega, 2010). Instead, he argued that the tactic was not yet sophisticated enough to lower the annoyance factor by showing users truly relevant ads across websites. When asked about potential concerns regarding privacy, data monetization, and related issues connected to the use of information intermediaries, Greenpeace USA's Dionna Humphreys replied:

> I don't know that we've ever discussed that. I think that as Facebook continues to reinvent itself it blurs the lines of privacy a little bit… It's not something that we we've had a discussion about in terms of what's happening and how is this affecting our supporters. (Personal communication, October 29, 2013)

Discussion

The first pattern that emerges through these interviews is the online strategists' lack of awareness or concern regarding privatized Internet governance. While they could identify individual instances in which the policies and technical features implemented by non-specialized intermediaries disrupted their work, they did not place them within a broader category (as have Internet governance scholars) or connect them with the growing privatized Internet governance role that these intermediaries have assumed.

There are several plausible explanations for this disconnect. Advocacy group staffers may be so focused on the tasks at hand that they do not have the time or attention span to connect individual instances of non-specialized intermediary disruptions to a broader Internet governance pattern worthy of concern. The disconnect may also reflect the fact that this particular aspect of Internet governance has not yet received the level of attention that other issues, like network neutrality, have received. Although I did not bring up net neutrality during interviews, it is safe to assume that the staffers would have been familiar with the issue and appropriately concerned about it. It is possible that they will hold similar views about privatized Internet governance if attention to the issue increases. This is yet another avenue for further research arising from this dissertation.

Another pattern that emerges from these interviews is the overwhelmingly instrumental view that strategists hold of private information intermediaries. Understandably, activists are focused on their organization's or movement's goals, and successfully executing the strategies that will ultimately achieve them. An ethos pervades the online organizing community that emphasizes the primacy of strategy over tools. Consequently, the relevant categories for strategists have little to do with those relevant to Internet governance, and everything to do the strategic usefulness of each particular tool. This attitude is reflected in the distinctions strategists

made across interviews between email and social media platforms that boils down to mobilization vs. engagement. They mostly regarded mass email as the "killer app" that drives actions like petition signatures, donations, and event attendance, while social media serve as tools for rapid response to unfolding events, new supporter recruitment, and ongoing engagement with existing and new supporters through online communities.

Another notable pattern is the lack of conceptual distinction strategists make between the disruptions they have to overcome in their use of specialized and non-specialized intermediaries. Contending with a change in Facebook's or Twitter's functionality is treated as little different from dealing with a database error or an HTML display bug from a technology vendor: They are disruptions to be solved (or endured) in order to keep using the tool in question to achieve tactical or strategic goals. From a privatized Internet governance perspective, however, the distinctions do matter. Activists have much more control over specialized tools than over non-specialized tools, both in terms of the technical architectures and the policies that govern how each type of tool will be used.

The distinctions between specialized and non-specialized tools become more relevant to strategists when the disruptions associated with the latter become most blatant—particularly when they involve censorship. As the case of the anti-Fwd.Us ad shows, outright censorship by information intermediaries can shift attitudes among strategists from seeing them as collective action platforms to something like traditional media outlets that must be chastised for engaging in censorship. This incident highlights the inherent tensions of treating non-specialized intermediaries as neutral collective action platforms, when in fact they are corporate entities with social and political agendas that can differ—sometimes substantially—from those of advocacy organizations, and will not hesitate to implement technological architectures or policies to

support their agendas. This tension can often put activists in the awkward position of treating some of the very platforms on which they depend as targets of their advocacy efforts. But aside from blatant instances like censorship, the general attitude among respondents toward disruptions stemming from technical or policy choices of information intermediaries is to treat them as inevitable consequences of using these tools, to be sidestepped, hacked, or simply endured because "there's nothing else like it" or they see a need to "go where people are."

There are potential remedies available to activists affected by social media platform policies and architectures discuss, including: migrating to new social media platforms en masse, embracing "civic technologies" like Wikipedia, applying legal remedies anchored in consumer safety laws, appealing to sympathetic governments, advocating industry self-regulation, and direct, long term advocacy targeting social media platforms (Youmans & York, 2012, pp. 324-325). But interviews revealed no palpable sense of a need for such measures, or even awareness of their availability. The exception seems to be cases involving outright censorship, when strategists will not hesitate to target information intermediaries with advocacy campaigns.

A potential limitation of this study is its relatively narrow focus on non-specialized advocacy tools. While this focus was justified and useful in this case, the interaction between specialized tools and online advocacy must not be overlooked in the long run. Some scholars have made great strides in understanding the relationship between online infrastructure and various facets of political communication and mobilization (Karpf, 2012; Kreiss, 2012; Stromer-Galley, 2014), but there is still much research to be done. Greater attention to the burgeoning online specialized tools industry would be equally beneficial.

Implications for Practitioners and Researchers

Interviews indicated a disconnect between how practitioners of online advocacy view private information intermediaries, and various concerns articulated by Internet scholars and policy experts. Given the increasingly important role that the Internet plays as a platform for political communication and participation, it would be beneficial to bridge this gap. If current trends hold, non-specialized private information intermediaries—particularly social networking services—should become even more important as collective action platforms. This means that the technological architectures and policies these corporations enact will increasingly dictate what activists can and cannot do online to further their goals.

Increased interaction between practitioners and their counterparts in the scholarly community would raise awareness about critical issues of privatized Internet governance among the former, and relate scholarly work even more intimately to the day-to-day practices of private information intermediary advocacy use. This interaction could result in greater awareness among practitioners about various aspects of privacy and data security, which could lead to more rigorous internal policies related to these concerns. It could also lead to the conceptualization and enactment of more alternatives for advocacy organizations when their work is disrupted by non-specialized intermediaries. Greater interaction could also lead academics to extend their research into areas of concern to practitioners, such as the rapid pace of change within non-specialized intermediaries. Ultimately, such interactions should lead to better scholarship, policy work, and advocacy practices.

Regulatory Implications for Intermediaries

A combination of factors are slowly conferring upon private information intermediaries a powerful role in determining how we can express ourselves and act politically online. A self-

reinforcing cycle that channels more and more political expression and action through private intermediaries; vague, inconsistently applied, or overly aggressive policies and guidelines; and susceptibility of private intermediaries to outside pressures, are just some of the factors contributing to this trend (Hestres, 2013). Whether they have intended to or not, private information intermediaries has assumed a key Internet governance function in the sphere of political participation.

The trend may be reaching a point where regulation, whether issued from above or generated from within the industry, is necessary to protect freedom of expression online. Extending the principles of network neutrality in modified form to the realm of private intermediaries could achieve these aims. Such principles, anchored on widely accepted international laws and treaties, would commit intermediaries to reject universally regarded illegal content—e.g. child pornography—or content that facilitates or incites universally regarded illegal behavior, but otherwise adopt a broad content neutrality that privileges freedom of expression and participation above other considerations. When censoring content, intermediaries would provide reasons anchored explicitly in clear guidelines supposedly violated by the user or organization. Intermediaries would also establish a transparent appeals process for rejected content that renders decisions in a reasonable time frame, become more transparent about their development roadmaps, and commit to implementing greater data portability for individuals and organizations in order to avoid unnecessary lock-in effects. Adoption and strong adherence to such principles and commitments could forestall the need for governmental regulation, which corporations usually deplore. But governments must not be afraid to intervene in favor of freedom of expression should the gatekeeping role of private intermediaries continue to grow unchecked.

CHAPTER 6

CONCLUSION: NEXT STEPS FOR INTERNET-MEDIATED ADVOCACY RESEARCH

The findings presented in this study have implications for three broad areas of communication and Internet studies: climate communication, Internet-mediated advocacy, and Internet governance. On climate communication, these findings improve our knowledge of the practices of climate advocates, and how they may facilitate or hinder our ability to enact solutions to the climate crisis that are equal to the task. On Internet-mediated advocacy and governance, they enhance our understanding of the organizational traits and dynamics that influence strategic Internet use, and the interactions between organizations and the technological context within which they conduct their work. This dissertation also provides researchers with some insights into both the possibilities and perils of using advocacy emails as primary data. Given the importance of online communication and mobilization to climate advocacy, the considerable amount of online advocacy that climate and environmental activists practice, and the growing reliance of advocates of all sorts on private information intermediaries over which they have little control, these findings should be useful to a variety of researchers and practitioners.

Implications for Climate Communication Research

Recent audience segmentation research on Americans' attitudes about climate change reveal two worrisome trends for climate advocates: the segments most amenable to climate action have shrunk, while almost all of the segments least amenable to climate action have grown. The Alarmed climate issue public that cares most passionately about the issue has contracted by two points, while the Concerned has diminished by six. Meanwhile, the Cautious segment has increased 4 points, the Doubtful one point, and the share of Dismissives has more

than doubled, even as the Disengaged have dropped by more than half (Leiserowitz et al., 2014). Although the shifts are subtle and the audience segments may revert to their previous proportions as a function of the ebb and flow of public opinion, these trends may also be indicative of both a diminishing concern about climate change, and widening political polarization around the issue (Dana R Fisher, Waggle, & Leifeld, 2013). They also point to a increasingly unfavorable public opinion environment for climate action in the U.S., at least in the near future. Given the "wicked" nature of climate change, a policy problem so complex that no one solution at any one level of government or society could fully address it (Hulme, 2009), momentum for comprehensive solutions will have to come from both a growing climate issue public *and* a broadly more favorable public opinion environment. Although both conditions will be necessary, neither will be sufficient on its own.

Studying the online communication practices of climate and environmental advocacy organizations is important because these groups have a role to play in both growing and mobilizing the climate public. Evidence presented in Chapter 3 suggests that some organizations are distinctly focused on maximizing mobilization among the climate issue public—only a quarter of which have taken a climate-related political action—while others place greater emphasis on reaching and persuading new audiences. At the very least, the latter groups seem to have a dual focus: preaching to the choir while also recruiting news supporters who will become, if not members of the choir, at least fellow believers.

These differences broadly align with both the age of the organizations in relation to Internet adoption and their advocacy missions. Climate organizations are placing far greater emphasis on the role that bottom-up, grassroots pressure on decision-makers across public arenas can play in moving them in the right direction, while environmental groups are putting more

stock on the role that scientific and policy expertise can play in influencing media coverage of an issue, or how it can influence decision-makers and other elites directly. In other words, some exhibit primarily a grassroots orientation, while others exhibit primarily an elite orientation.

These are broad characterizations, of course. The 1Sky campaign was deeply involved in the Washington-based legislative battle of 2009-10, and 350.org co-founder Bill McKibben is no stranger to using the power of the media to help set the public agenda. Organizations like NRDC and EDF usually try to back their lobbying efforts with demonstrations of broad public support, such as emails, petitions, or federal agency comments. In addition, Chapter 4 showed some unexpected discursive similarities between the types of groups, as well as some divergence between the theories of change that interviews and organizational histories suggested best fit some groups, and the online action repertoires they deployed. But overall, the distinction between climate/web-native and environmental/legacy organizations remains analytically useful.

This new empirical data gives us a better idea of what role different types of organizations that advocate around climate can play in future debates. Enacting any large-scale, long-term national climate policy—a category that excludes EPA regulations, which can be weakened or even overturned by future administrations—will require both significant grassroots mobilization and elite allies in Washington to help pass it and monitor its implementation. Just as environmental organizations have relied on the grassroots energy and mobilization capacity of 350.org to (temporarily) halt the Keystone XL pipeline, climate organizations will most likely rely on the scientific and policy expertise of environmental groups in the future, and to some extend do today. Both of the strengths that these organizations provide will be necessary and complementary.

According to the Six Americas studies sponsored by Yale University and George Mason University, between 2009-13 the climate issue public has contracted, while the rate of members who have taken at least one climate-related political action has remained the same (Leiserowitz et al., 2014; Leiserowitz, Maibach, & Roser-Renouf, 2009). The prospects for enactment of U.S. climate policies commensurate to the problem require reversal of these trends. In light of these trends, the most pressing question is: what approach is most likely to both expand the size of the climate issue public, and maximize its political mobilization?

Examples of recent large-scale political mobilizations revolving around climate change hint at an answer. A study of LCV's disappointing 2010 effort to elect climate-friendly members of Congress, and defeat candidates hostile to climate action, shows there are limits to what a legacy, checkbook activism model can accomplish on behalf of the climate issue (Shaiko, 2012). By contrast, 350.org has been surprisingly successful in leading opposition to the Keystone XL pipeline (Hestres, 2014). Although these mobilizations are not identical in nature, the contrasting outcomes suggest that 350.org's emphasis on online-to-offline organizing and high-threshold actions stands a better chance of maximizing climate issue public mobilization.

Bill McKibben and 350.org have been criticized for focusing on the Keystone pipeline as a climate organizing vehicle at the expense of impending EPA carbon emission regulations, which are presumably much more important from a CO^2 reduction policy perspective (Chait, 2014). But this critique presents a false choice. Even as 350.org has led the charge on Keystone, legacy environmental organizations have very capably and (so far) successfully lobbied and organized public support for ambitious EPA regulations. This division of labor has (again, so far) served both goals well.

After the crushing defeats of failed climate legislation and the loss of a comparatively climate-friendly Congress in 2010, the Keystone project fight also gave the climate movement a shot in the arm in 2011-12 that a focus on EPA regulations may not have provided. From a movement-building perspective, the choice might very well have been to join the fight against Keystone or risk further stalling of the climate movement's grassroots energy. A climate movement strategist might reasonably think gaining such an organizing vehicle was worth the comparatively marginal carbon reductions that stopping Keystone would yield because a stronger and victorious climate movement could help achieve even more ambitious policies in the future. Such a calculation would be risky, but most political calculations carry some risk.

While maximizing mobilization of the climate issue public may propel certain advocacy campaigns to success (e.g., Keystone), the broader implications of this approach are unclear. The wicked nature of climate change suggests that more inclusive forms of democratic decision making—e.g. deliberative or participatory democracy—and additional consensus mobilization (Klandermans, 1984) will be necessary to achieve a consensus broad enough to support comprehensive solutions. Increased climate issue public mobilization, however, may reinforce patterns of motivated reasoning (Bacon, 2000) and worsen existing polarization around climate change (Dunlap & McCright, 2008), making the process of enacting solutions more difficult. Results presented in Chapter 4 show that both climate and environmental groups rely heavily on motivational framing that emphasizes public accountability, and often demonizes opponents of climate action. In light of these results, it remains to be seen whether the gap between issue public mobilization and more inclusive alternatives can be bridged successfully.

Limitations

There are a limitation to the research presented in this dissertation beyond those already mentioned in the empirical chapters, such as my inability to secure certain interviews and the MCP data set's shortcomings. Anticipating that scheduling interviews would be a time-consuming process irregularly distributed across several months. I conducted all interviews reported in Chapters 3 and 5 before undertaking the content analysis in order to secure as many as possible and have enough time to analyze and report findings based on them. The downside of this approach is that the content analysis yielded some findings that may have been clarified through interviews. By the time I had these findings on hand, it was too late to conduct thorough follow-up interviews informed by the content analysis. Reversing the order of data collection, or having time to conduct follow-up interviews, would have clarified some intriguing findings.

For example, my research into Greenpeace and Sierra Club led me to anticipate greater levels of high-threshold action requests in their advocacy emails—but the content analysis contradicted these expectations. Do the strategists featured in Chapter 3 hold inaccurate views of their own organizations' action repertoires? Are they recruiting for high-threshold actions through other channels, such as private email lists or social media?

These are just two plausible explanations, but without proper follow-up no explanation can be confirmed. These questions may also have been answered by analyzing activist communications through other online channels, such as social media. While the paramount role that email plays in online mobilization, along with time and resource constraints, justify this study's reliance on emails as primary data, comparisons of different online communication channels would place the findings reported in Chapter 4 within a broader online communication context.

Implications for the Study of Internet-Mediated Advocacy

In addition to analyzing organizations according to their issue focus, I have drawn distinctions in this study based on whether organizations pre- or post-dated broad adoption of the Internet in the U.S., and whether they could be classified as Internet-mediated or legacy organizations. The most important contribution this study makes to ongoing debates about the relationship between the Internet and collective is further refinement of the concept of Internet-mediated advocacy organizations as it applies to single-issue ecosystems. While it is true that, to varying degrees, virtually all advocacy organizations are Internet-mediated, the categorical distinctions that several scholars have developed between legacy and Internet-mediated groups are still useful and valid (Bimber, Flanagin, & Stohl, 2012; Bimber et al., 2009; Chadwick, 2007; Karpf, 2012).

This study further refines the concept by highlighting which characteristics of Internet-mediated organizations that have been detected in national groups like MoveOn and the Progressive Change Campaign Committee (PCCC) carry over into a single-issue advocacy ecosystem. Some characteristics, like relatively smaller staffs and overhead, looser definitions of membership, and divergence from the "armchair activism" model, certainly carry over. But others, like routine engagement in headline-chasing, and a reliance on the media cycle to propel fundraising, do not.

Future research projects on Internet-mediated advocacy organizations must therefore incorporate single-issue advocacy ecosystems, where most of the day-to-day advocacy work happens, into their theoretical assumptions and research designs. This approach would incorporate the unique characteristics of the advocacy ecosystems being studied into research questions and hypotheses because they are likely to be important factors in understanding Internet-mediated advocacy within these ecosystems. For example, most of the Internet-mediated

climate groups profiled in this study do not depend on event-driven fundraising for their financial stability because foundations and large donors have shouldered this burden. This has freed many climate groups to concentrate almost exclusively on generating actions with direct political impacts. But this pattern may be specific to the climate advocacy ecosystem, and not surface in other communities.

Implications for Research on Internet Governance

Chapter 5 is an attempt to contribute to ongoing scholarship on the relationship between private information intermediaries and different types of collective action (Benkler, 2011; MacKinnon, 2012; Youmans & York, 2012). The chapter makes three main contributions to this line of scholarship. First, the distinction between specialized and non-specialized advocacy intermediaries provides additional conceptual categories that scholars can use when researching the relationship between private intermediaries and the daily work of online advocacy. This distinction recognizes the fact that not all the intermediaries online strategists rely on daily present the same challenges in terms of Internet governance. It also highlights the existence of a specialized category of online tools that are worthy of further empirical study and sociotechnical theorizing on their own right, whether in conjunction with an Internet governance research agenda or not. Several scholars are already on this path (Kreiss, 2012; Nielsen, 2011), with hopefully more to come.

Second, the chapter contrasts the attitudes of online strategists about the intermediaries they work with every day with important concerns raised by Internet governance scholars and experts. Given that online strategists view intermediaries through a very different lens than scholars, the disconnect described in Chapter 5 is not shocking. But this basic lack of awareness or concern among strategists could ultimately affect their ability to use the Internet effectively

for advocacy, as well as that of their organizations' supporters to express themselves and participate politically online. A future research agenda that picks up on these themes should include surveys of strategists across different advocacy communities, along with more in-depth interviews, to develop a more complete picture of attitudes and general knowledge about Internet governance among this class of professionals. Scholars should be as concerned, if not more so, about this disconnect among tech-savvy online professionals who wield great influence in the networked public sphere as they would be about a similar lack of awareness or concern among the general public.

Finally, I proposed in Chapter 5 some guidelines for policies that would protect freedom of political expression and participation online through private information intermediaries, as well as the ability of advocacy organizations to communicate and mobilize their supporters through them. These are based on principles I have outlined in previous research on mobile apps, which themselves derive from the principle of network neutrality (Hestres, 2013; Van Schewick, 2010). Ideally, future research along this line would develop these very broad principles into detailed, pragmatic policy proposals with a chance of being adopted by private intermediaries. Closer interactions between online communication practitioners and Internet scholars like the ones I suggested in Chapter 5 would enhance the chances of enactment for such policies.

Email as Primary Data for the Study of Political Communication

Virtually all contemporary advocacy organizations and campaigns rely on email to communicate with and organize their supporters. As Chapters 3 and 5 confirmed, many online strategists still consider it the "killer app"—an essential specialized tool of contemporary political advocacy. Organizations adopted it soon after email use began to grow in the U.S., and have continued to rely on it even after the emergence and rapid adoption of social media

(Nielsen, 2011). In fact, it is at the heart of the foundational myth of MoveOn.org, perhaps the web-native advocacy group most well represented in online politics scholarship. Yet studies of contemporary issue advocacy that rely on email as primary data are relatively scarce in the literature.

It is my hope that this dissertation encourages greater use of email as primary data for studies of contemporary political advocacy. Email affords scholars an opportunity to examine how organizations communicate with their most committed supporters, and what they ask them to do to advance their common cause. Regardless of whether organizations are large or small, legacy or web-native, elite or grassroots-oriented, they all depend on a core base to support their work in myriad ways: financial contributions, expressions of support for their via emails or petitions, event attendance, and others.

Email is a particularly fruitful source of data because it usually combines messaging with action. Unlike other online media, which are less likely to contain both messaging and action opportunities in the same units of analysis, advocacy emails almost always combine messaging conveying an attitude toward an issue it presumably shares with supporters, with calls to action and the means to engage in it. Although it is not the only communication channel between organizations and supporters and certainly not the most interactive, email offers an important window to observe online communication and advocacy practices.

But as I can attest, there are significant challenges involved in using email as primary data. Perhaps the most significant challenge my coders and I encountered during the content analysis was disentangling motivational frames from each other within emails in order to code them separately. Online strategists are most likely not thinking in terms of frames when they compose email appeals; instead, under tight time constraints and the need to respond quickly to

events—or or simply cope with their workload—they try their best to write the most successful appeal possible under the circumstances. Although A/B testing has taken some of the guesswork out of this process, writing email appeals still involves a fair amount of intuition on the writer's part.[4] It is therefore not surprising that writers often adopt a kitchen sink approach to email appeals, intertwining various frames into the same paragraph, or even the same sentence. Several coding schemes that tried to prioritize motivational frames failed to achieve reliability precisely because of this kitchen sink effect. In the end, the only reliable way to code this variable was to abandon this approach in favor of coding for the presence or absence of the frames, regardless of whether they dominated a message or not.

Another challenge stems from the likelihood that relying on a data set like the Membership Communications Project (MCP) will most likely yield incomplete data, which could be problematic depending on the focus of the study in question. One of the reasons my codebook instructed coders to ignore all graphics or text boxes that are often found on the upper right-hand corner of advocacy emails is that, in many cases, these elements contained broken images that could not be analyzed. Since advocacy emails are mixed media that tend to blend text with images, coding only for the text ultimately yields a somewhat incomplete impression of the message. Obviously, this type of email data set is not suitable for visual framing analyses or similar visual communication research methods. But despite these challenges, advocacy emails are a worthwhile source of primary data that is woefully underutilized in political communication research today.

[4] A/B testing is the practice of testing two or more variations of an element in an email on a small sample of the list (while leaving the rest of the message intact, as a control), and then incorporating the most successful variation into the final version of the email that is sent to the whole list. An A/B test typically involves around 5 percent of the list, depending on its size.

Suggestions for a Research Agenda

Future research on Internet-mediated advocacy should also begin to integrate all the different aspects of this phenomenon into end-to-end research designs. This approach would combine the views of online strategists, organizational characteristics that are likely to influence an organization's online strategy, sociotechnical examinations of the interaction between organizations and the technologies on which they rely to conduct advocacy, and content analyses across different online media, with data that measures responses to online strategies, and perhaps even online experiments and membership surveys. Organizations have access to valuable data about the performance of their emails, websites, and social media properties, that could be integrated into comprehensive, mixed-methods research designs, and provide researchers with a clearer, end-to-end picture of the online advocacy process. For example, integrating data generated by the various organizations' mass email systems into a content analysis like the one featured in this project would allow a researcher to pair results from traditional coding with email open rates, click-through rates, and action completion rates. This pairing would then allow a researcher to determine, for example, which motivational frames or combinations of them elicit the largest response rates among supporters, or compare which types of actions are more popular vs. which types organizations request the most.

This type of data integration would require close cooperation with advocacy organizations, which cannot always be taken for granted even if the researcher has ties to the communities under investigation (e.g., LCV's refusal to cooperate with this project), and a strong commitment to applied research (Kreps, Frey, & O'Hair, 1991). But if researchers can overcome this challenge and forge strong research partnerships with advocacy organizations that benefit both parties, we could greatly improve our understanding of the relationship between the Internet and contemporary collective action.

APPENDIX A

INTERVIEW PROTOCOL FOR CHAPTERS 3 AND 5

1. How would you describe your organization's overall mission?
2. What are your organization's goals in relation to climate change? What do you hope to achieve to tackle the problem?
3. Have you heard of the term 'theory of change'? (If not, explain). What is your organization's theory of change?
4. What strengths does your organization bring to the fight against climate change?
5. As you know, there is a range of opinions about climate change and different levels of interest in the issue. Within that range, who are you trying to reach?
6. What do you want people to do about climate change?
7. When you communicate with the public about climate change, do you differentiate between different segments of the public?
8. In what ways are you using online tools to communicate or mobilize citizens?
9. In terms of how you communicate or mobilize citizens, how is your organization different from other climate or environmental organizations?
    a. Are there differences in how you use online tools?
    b. Are you trying to reach different segments of the public?
10. How much do you depend on tools like Facebook, Twitter, Google, etc.?
11. Have you ever had problems using these tools because of their corporate policies or any restrictions their software imposed on you?
12. How easy would it be for you to stop using these tools in favor of others?
13. How would it affect your organization if these tools were suddenly unavailable?

14. Do you have any concerns about using these tools, for example how your data might be used by these companies in the future, the privacy of your supporters, etc.?

APPENDIX B

EMAIL CONTENT ANALYSIS CODEBOOK, V 3.0

URL for email repository: http://www.luishestres.com/dissertation/

You will be coding for three things:

- The **motivational frames** groups use to get supporters to take action.
- **Action repertoires**: the *actions* that groups ask their supporters to take.
- **Issues:** Any mentions of several issues related to climate change.

Read all emails carefully, including subject lines, but ignore footers & sidebars, including links to social media, unsubscribe, and other elements we're not coding. If you run into any **newsletters, localized emails, emails in another language, or anything that doesn't fit the type of advocacy email we've been coding,** let me know ASAP and I'll decide if you should code it or not**.** In the meantime, just keep coding.

MOTIVATIONAL FRAMES: Read the subject line and the content of **the entire email**. For each motivational frame, if at least one whole sentence in the email reflects the frame, enter a '1' in that frame's column. Otherwise, enter '0'.

- **Climate/environmental protection or prevention:** urges action to prevent catastrophic climate change or environmental damage, **AND/OR** to protect the planet, habitats, and communities from their effects -- including threats to the public's health. Can include calls to 'save the planet,' protect specific habitats or species (e.g. polar bears, ice caps, coral reefs), or mentions of asthma, cancer, or other illnesses related to climate change, pollution, or other environmental damage.

- **Public accountability/support (aka 'thank' or 'spank'):** urges action to hold public officials, corporations, powerful individuals, the media, etc. accountable for blocking climate or environmental action **AND/OR** thank or support them for taking action on climate or protecting the environment. Can include references to Big OIl, Dirty Coal, climate deniers, Dirty Dozen, **and/or** 'thank so-and-so' for voting correctly or being a 'champion' on climate or the environment.

- **Movement/organizational support:** urges action to help build the climate movement as a way to accelerate climate action, **AND/OR** support a particular organization so it can keep fighting climate change or other environmental battles.

ACTION: Assign each email a number code for the action that is **most prominent**. If there are multiple actions, code the **first** action mentioned. Choose the code that comes closest to the action described in the text.

0. Literally no action requested

1. Click to read/learn more/for more info

2. Generic online action (any online action that doesn't fit other categories)

3. Share, like, tweet, etc. something on social media

4. Petition to congressional target(s)

5. Petition to president/White House

6. Petition more than one branch of govt. (e.g. White House and Congress)

7. Petition or contact corporation/corporate CEOs

8. Email congressional target(s)

9. Email the president/White House

10. Email more than one branch of govt. (e.g. White House and Congress)

11. Contact a federal agency (e.g. EPA comments, etc.)

12. Call congressional target(s)

13. Call the the president/White House

14. Donate (any kind of donation)

15. Participate in conference call

16. Attend a local event (rally, march, etc.)

17. Organize a local event (rally, march, etc.)

18. Visit members of Congress in DC or district office (aka lobby visit)

19. Become a regular volunteer/volunteer leader/volunteer organizer

20. Participate in civil disobedience

ISSUES. If any of these issues is mentioned in any part of the email, enter a '1' in that issues' column. Otherwise, enter a '0'.

- **Climate change:** mentions of climate change, global warming, greenhouse gases, comprehensive climate bill or legislation, carbon pollution, climate pollution, global warming pollution, warming planet, CO^2, or similar terms.

- **Climate bill, cap & trade or carbon tax:** mentions of climate bill/legislation, cap and trade, carbon tax, "putting a price on carbon," or similar terms. Includes specific bills like American Clean Energy and Security Act (ACES, a.k.a. Waxman/Markey bill), American Power Act (APA), or bills sponsored by Sens. Kerry, McCain, Lieberman, Warner, Boxer, etc.

- **Clean Air Act and/or EPA:** any mention of the EPA or the Clean Air Act.

- **Clean/renewable energy:** mentions of clean/renewable energy like solar, wind, geothermal, biofuel, hydropower, etc. Includes measures to promote clean/renewable energy, including Renewable Energy Standards (RES) or Portfolios (REP). Does **NOT** include nuclear energy.

- **Energy efficiency:** mentions of energy efficiency, broadly construed. Includes any measures to promote efficiency, like auto fuel efficiency standards, building codes, efficiency standards for appliances (fridges, light bulbs), etc.

- **Coal:** any mention of coal power plants, including campaigns to close or retire plants, prevent new construction, or regulate them, references to 'Dirty Coal' or similar.

- **Oil:** mentions of oil drilling or anything related: Oil drilling, the BP oil spill, other spills, burst pipes, oil subsidies, references to 'Big Oil' or similar.

- **Keystone XL:** any mentions of the Keystone XL pipeline (aka KXL or Keystone)

- **Divestment:** mentions of any efforts to convince institutions (universities, governments, etc.) to divest from fossil fuel investments.

- **Fracking:** mentions of hydraulic fracturing, hydro-fracturing, or 'fracking'

- **Extreme weather:** Mentions of unusually severe or unseasonal weather: Droughts, super-storms and hurricanes, freakish dust storms, wildfires, floods, extreme temperatures, etc. http://www.nwf.org/Wildlife/Threats-to-Wildlife/Global-Warming/Global-Warming-is-Causing-Extreme-Weather.aspx

- **Other environmental:** any other environmental issue not mentioned in the previous columns. E.g. save the whales, overfishing, wildlife protection, etc.

REFERENCES

(2012). 4th annual nonprofit social network benchmark report Retrieved October 9, 2012, from http://nonprofitsocialnetworksurvey.com/files/2012-Nonprofit-Social-Networking-Benchmark-Rpt.pdf

(2012). Earth Island Institute Inc. financial statements and independent auditor's reports for the year ended December 31, 2012. *Earth Island Institute, Inc.*, from http://www.earthisland.org/assets/2012.Audit.pdf

1Sky. (2008). Annual report 2007-2008: Year 1 Retrieved May 28, 2012, from http://www.1sky.org/files/1sky-annual-report-2008-final.pdf

1Sky. (2009). Annual report year two: October 2008-September 2009 Retrieved May 28, 2012, from http://www.1sky.org/files/1Sky-Annual-Report-Year-Two-October-2008-September-2009.pdf

1Sky. (2010). Annual report year three: October 2009-September 2010 Retrieved May 28, 2012, from http://www.1sky.org/files/1Sky-Annual-Report-Year-Two-October-2008-September-2009.pdf

350.org. (2012). Tell your senators: Reject the pipeline! *350.org* Retrieved May 30, 2012, from http://act.350.org/sign/kxl/

350.org. (2012). Annual report - 2012. *350.org* Retrieved December 28, 2013, from http://350.org/financials/2012

350.org. (n.d.). Our mission Retrieved May 29, 2012, from http://www.350.org/mission

350.org. (n.d.). Our team Retrieved May 29, 2012, from http://www.350.org/en/our-team

Andrews, K. T., & Edwards, B. (2004). Advocacy organizations in the U.S. political process. *Annual Review of Sociology, 30*(1), 479-506.

Apple. (2010). App store review guidelines. *Apple Inc.* Retrieved April 16, 2012, from http://stadium.weblogsinc.com/engadget/files/app-store-guidelines.pdf

Bacon, F. (2000). Three steps toward a theory of motivated political reasoning. In A. Lupia, M. D. McCubbins & S. L. Popkin (Eds.), *Elements of reason: Cognition, choice, and the bounds of rationality* (pp. 183-214). Cambridge, UK: Cambridge University Press.

Bakker, T. P., & de Vreese, C. H. (2011). Good news for the future? Young people, Internet use, and political participation. *Communication Research, 38*(4), 451-470.

Barringer, F. (2012). Q.&A.: Michael Brune, executive director of the Sierra Club. *Green: A Blog About Energy and the Environment (The New York Times)* Retrieved December 2, 2014, from http://green.blogs.nytimes.com/2012/04/17/a-q-a-with-the-sierra-clubs-michael-brune/

Bartosiewicz, P., & Miley, M. (2013). The too polite revolution: Why the recent campaign to pass comprehensive climate legislation in the united states failed *The Politics of America's Fight against Global Warming*: Harvard University, Columbia School of Journalism, and the Scholars Strategy Network.

Baumgartner, F. R. (2009). *Lobbying and policy change : who wins, who loses, and why*. Chicago ; London: University of Chicago Press.

Belogolova, O. (2011). Insiders: Obama will approve Keystone XL pipeline this year. *National Journal* Retrieved May 30, 2012, from http://www.nationaljournal.com/energy/insiders-obama-will-approve-keystone-xl-pipeline-this-year-20111011

Benkler, Y. (2011). A free irresponsible press: WikiLeaks and the battle over the soul of the networked fourth estate. *Harvard Civil Rights - Civil Liberties Law Review, 46*(2), 311.

Bennett, W. L. (2003). Communicating global activism. [Article]. *Information, Communication & Society, 6*(2), 143.

Bennett, W. L., Christian, B., & Terri, G. (2008). Communication and political mobilization: Digital media and the organization of anti-Iraq war demonstrations in the U.S. *Political Communication, 25*(3), 269-289.

Bennett, W. L., & Segerberg, A. (2012). The logic of connective action. *Information, Communication & Society, 15*(5), 739-768.

Bimber, B., Flanagin, A. J., & Stohl, C. (2012). *Collective action in organizations: Interaction and engagement in an era of technological change*. New York: Cambridge University Press.

Bimber, B., Stohl, C., & Flanagin, A. J. (2009). Technological change and the shifting nature of political organization. In A. Chadwick & P. N. Howard (Eds.), *Routledge handbook of Internet politics* (pp. 72-85). New York, NY: Routledge.

Böhme, R., & Köpsell, S. (2010). *Trained to accept?: A field experiment on consent dialogs.* Paper presented at the Proceedings of the 28th international conference on Human factors in computing systems.

Bojars, U., Breslin, J., & Decker, S. (2008). *Social networks and data portability using semantic web technologies.* Paper presented at the Proceddings of the Workshop on Social Aspects of the Web.

Borge, R., & Cardenal, A. S. (2011). Surfing the Net: A pathway to participation for the politically uninterested? *Policy & Internet, 3*(1).

Bosso, C. J. (2005). *Environment, Inc.: From grassroots to beltway*. Lawrence: University Press of Kansas.

Boulianne, S. (2009). Does Internet use affect engagement? A meta-analysis of research. *Political Communication, 26*(2), 193-211.

boyd, d. (2008). Facebook's privacy trainwreck. [Article]. *Convergence: The Journal of Research into New Media Technologies, 14*(1), 13-20.

Brune, M. (2013). From Walden to the White House. *Coming Clean: The Blog of Executive Director Michael Brune* Retrieved December 3, 2014, from http://sierraclub.typepad.com/michaelbrune/2013/01/civil-disobedience.html

Butler, E., McCann, E., & Thomas, J. (2011). Privacy setting awareness on Facebook and its effect on user-posted content. [Article]. *Human Communication, 14*(1), 39-55.

Carr, D. (2012). New site wants to make the serious as viral as the shallow. *The New York Times - Media Coder blog* Retrieved January 15, 2014, from http://mediadecoder.blogs.nytimes.com/2012/03/26/new-site-wants-to-make-the-serious-as-viral-as-the-shallow/

Casey-Lefkowitz, S. (2010). House members say proposed tar sands pipeline will undermine clean energy future. *Switchboard: Natural Resources Defense Council Staff Blog* Retrieved May 30, 2012, from http://switchboard.nrdc.org/blogs/sclefkowitz/house_members_say_proposed_tar_1.html

Chadwick, A. (2007). Digital network repertoires and organizational hybridity. *Political Communication, 24*(3), 283-301.

Chait, J. (2014). Keystone fight a huge environmentalist mistake. *New York Magazine* Retrieved March 27, 2014, from http://nymag.com/daily/intelligencer/2013/10/keystone-fight-a-huge-environmentalist-mistake.html

charitynavigator.org. (2011). The Climate Reality Project. *Charity Navigator* Retrieved December 29, 2013, from http://www.charitynavigator.org/index.cfm?bay=search.summary&orgid=12771#.UsBzMmRDsZ5

climaterealityproject.org. (n.d.). Climate Reality Leadership Corps. *The Climate Reality Project* Retrieved December 29, 2013, from http://climaterealityproject.org/leadership-corps/

Cohen, J. (1968). Weighted kappa: Nominal scale agreement provision for scaled disagreement or partial credit. *Psychological bulletin, 70*(4), 213.

Collins, E., & Zoch, L. (2006). *The use (or lack thereof) of framing devices on activist organizations' websites.* Paper presented at the annual meeting of the International Communication Association, Dresden, Germany.

Colman, Z. (2013). Head of U.S. Pacific Command: Climate change biggest threat. *The Hill* Retrieved March 20, 2013, from http://thehill.com/blogs/e2-wire/e2-wire/287327-head-of-us-pacific-command-climate-change-biggest-threat

Davis, A. (2010). New media and fat democracy: The paradox of online participation. *New Media & Society, 12*(5), 745-761.

DeNardis, L. (2012). The emerging field of internet governance. In W. Dutton (Ed.), *Oxford Handbook of Internet Studies* (pp. 555-576). Oxford: Oxford University Press.

DeNardis, L. (2014). *The global war for internet governance*. New Haven: Yale University Press.

DiMaggio, P., Hargittai, E., Neuman, W. R., & Robinson, J. P. (2001). Social implications of the internet. *Annual Review of Sociology*, 307-336.

Drake, W. J. (2004). Reframing Internet governance discourse: Fifteeen baselines proposition. In D. MacLean (Ed.), *Internet governance: A grand collaboration* (Vol. 5, pp. 122-161). New York, NY: United Nations Publications.

Dunlap, R. E., & McCright, A. M. (2008). A widening gap: Republican and Democratic views on climate change. *Environment: Science and Policy for Sustainable Development, 50*(5), 26-35.

Earl, J., & Kimport, K. (2011). Where have we been and where are we headed? *Digitally enabled social change: Activism in the internet age*. Cambridge, Mass: MIT Press.

Eaton, M. (2010). Manufacturing community in an online activist organization: The rhetoric of MoveOn.org's e-mails. *Information, Communication & Society, 13*(2), 174-192.

edf.org. (2013). Our mission and history. *Environmental Defense Fund* Retrieved December 31, 2013, from http://www.edf.org/about/our-mission-and-history

edf.org. (2013). How we work. *Environmental Defense Fund* Retrieved December 31, 2013, from http://www.edf.org/how-we-work

edf.org. (2013). Annual report 2013. *Environmental Defense Fund* Retrieved December 31, 2013, from http://www.edf.org/sites/default/files/AR2013/ar2013_report_web.pdf

Eilperin, J. (2011). New Jersey Gov. Chris Christie pulls out of greenhouse gas effort. *The Washington Post* Retrieved June 20, 2012, from http://www.washingtonpost.com/national/new-jersey-gov-chris-christie-pulls-out-of-greenhouse-gas-effort/2011/05/26/AGoQUGCH_story.html

energyactioncoalition.org. (n.d.). Our work Retrieved December 28, 2013, from http://www.energyactioncoalition.org/about/our-work

Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of communication, 43*(4), 51-58.

Facebook. (2012). Statement of rights and responsibilities. *Facebook*, November 23, 2012, from https://www.facebook.com/legal/terms

Facebook. (2013). Facebook advertising guidelines. *Facebook, Inc.* Retrieved January 15, 2014, from http://www.facebook.com/ad_guidelines.php

Facebook. (2014). Nonprofits on Facebook. *Facebook, Inc.* Retrieved March 28, 2014, from https://www.facebook.com/nonprofits

Fisher, D. R., & Boekkooi, M. (2010). Mobilizing friends and strangers. *Information, Communication & Society, 13*(2), 193-208.

Fisher, D. R., Waggle, J., & Leifeld, P. (2013). Where does political polarization come from? Locating polarization within the US climate change debate. *American Behavioral Scientist, 57*(1), 70-92.

Fowler, G. A. (2012). Facebook: One billion and counting. *The Wall Street Journal* Retrieved October 9, 2012, from http://online.wsj.com/article/SB10000872396390443635404578036164027386112.html

Freelon, D. (2010). ReCal: Intercoder reliability calculation as a web service. *International Journal of Internet Science, 5*(1), 20-33.

Fuchs, C. (2011). An alternative view of privacy on Facebook. *Information, 2*(1), 140-165.

German, B. (2010). Gore-backed climate groups form single organization. *E2 Wire: The Hill's Energy and Environment Blog* Retrieved December 29, 2013, from http://thehill.com/blogs/e2-wire/85249-gore-backed-climate-groups-form-single-organization

Gil de Zuniga, H., Veenstra, A., Vraga, E., & Shah, D. (2010). Digital democracy: Reimagining pathways to political participation. *Journal of Information Technology & Politics, 7*(1), 36-51.

Gladwell, M. (2010). Small change. *The New Yorker, 86,* 42.

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Cambridge: Harvard University Press.

Graves, L., & Suart, H. (2011). Keystone XL: Thousands gather outside White House in culmination of protests. *The Huffington Post* Retrieved May 30, 2012, from http://www.huffingtonpost.com/2011/11/06/thousands-gather-in-lafay_n_1078809.html

Greenpeace. (n.d.). About the Mobilisation Lab. *Greenpeace* Retrieved January 5, 2014, from http://www.mobilisationlab.org/about/

greenpeaceusa.org. (2012). Annual report 2012. *Greenpeace USA* Retrieved December 2, 2014, from http://www.greenpeace.org/usa/Global/usa/planet3/PDFs/2012financial/Greenpeace-Annual-Report-12-final.pdf

greenpeaceusa.org. (2013). About us. *Greenpeace USA* Retrieved January 2, 2014, from http://www.greenpeace.org/usa/en/campaigns/history/

greenpeaceusa.org. (2013). What we do. *Greenpeace USA* Retrieved January 2, 2014, from http://www.greenpeace.org/usa/en/campaigns/

greenpeaceusa.org. (2013). Stopping global warming. *Greenpeace USA* Retrieved January 2, 2014, from http://www.greenpeace.org/usa/en/campaigns/global-warming-and-energy/

Guarino, M. (2011). Hundreds arrested protesting Keystone XL oil pipeline. *The Christian Science Monitor* Retrieved April 24, 2013, from http://www.csmonitor.com/USA/2011/0903/Hundreds-arrested-protesting-Keystone-XL-oil-pipeline

Habermas, J. (1991). *The structural transformation of the public sphere: An inquiry into a category of bourgeois society*: MIT Press.

Hansen, J., Sato, M., Kharecha, P., Beerling, D., Berner, R., Masson-Delmotte, V., Pagani, M., Raymo, M., Royer, D. L., & Zachos, J. C. (2008). Target atmospheric CO2: Where should humanity aim? *The Open Atmospheric Science Journal, 2*(1), 217-231.

Helft, M., & Vega, T. (2010). Retargeting ads follow surfers to other sites. *The New York Times* Retrieved January 17, 2014, from http://www.nytimes.com/2010/08/30/technology/30adstalk.html

Henn, J. (2014). XL dissent inspires more Keystone protests across the nation. *350.org* Retrieved March 7, 2014, from http://350.org/xl-dissent-inspires-more-keystone-protests-across-the-nation/

Hestres, L. E. (2013). App neutrality: Apple's app store and freedom of expression online. *International Journal of Communication, 7*, 1265–1280.

Hestres, L. E. (2014). Preaching to the choir: Internet-mediated advocacy, issue public mobilization, and climate change. *New Media & Society, 16*(2), 323-339.

Hindman, M. S. (2009). *The myth of digital democracy*. Princeton: Princeton University Press.

Houghton, J. T., Ding, Y., Griggs, D. J., Noguer, M., van der Linden, P. J., Dai, X., & Johnson, C. A. (2001). Climate change 2001: The scientific basis. Cambridge, England: IPCC Third Assessment Report - Climate Change 2001.

Hull, G., Lipford, H., & Latulipe, C. (2011). Contextual gaps: Privacy issues on Facebook. *Ethics & Information Technology, 13*(4), 289-302.

Hulme, M. (2009). *Why we disagree about climate change: understanding controversy, inaction and opportunity*. New York: Cambridge University Press.

IPCC. (2014). Climate change 2014: Impacts, adaptation, and vulnerability: Summary for policymakers *Intergovernmental Panel on Climate Change*.

IRS. (2011). *Return of organization exempt from income tax -- the Sierra Club Foundation*. Retrieved from http://www.guidestar.org/organizations/94-1153307/sierra-club.aspx.

IRS. (2011). *Return of organization exempt From income tax -- the League of Conservation Voters Education Fund*. Retrieved from http://www.guidestar.org/organizations/52-1379661/league-conservation-voters-education-fund.aspx.

Jenkins, J. C. (1983). Resource mobilization theory and the study of social movements. *Annual Review of Sociology, 9*, 527-553.

Jones, P. (2013). Salesforce.com commits to renewables in data center. *Datacenter Dynamics* Retrieved January 16, 2014, from http://www.datacenterdynamics.com/focus/archive/2013/03/salesforcecom-commits-renewables-data-center

Karpf, D. (2010). Online political mobilization from the advocacy group's perspective: Looking beyond clicktivism. *Policy & Internet, 2*(4), 7.

Karpf, D. (2012). *The MoveOn effect: The unexpected transformation of American political advocacy* (Kindle ed.). New York, NY: Oxford University Press.

Khondker, H. H. (2011). Role of the new media in the Arab Spring. *Globalizations, 8*(5), 675-679.

Klandermans, B. (1984). Mobilization and participation: Social-psychological expansions of resource mobilization theory. *American sociological review*, 583-600.

Kosicki, G. M., & Pan, Z. (1996). *Framing analysis: An approach to media effects*. Paper presented at the International Communication Association Public Interest Group Annual Meeting.

Kreiss, D. (2012). *Taking our country back: The crafting of networked politics from Howard Dean to Barack Obama* (Kindle ed.). New York: Oxford University Press.

Kreps, G. L., Frey, L. R., & O'Hair, D. (1991). Applied communication research: Scholarship that can make a difference. *Journal of Applied Communication Research, 19*(1-2), 71-87.

Krippendorff, K. (2012). *Content analysis: An introduction to its methodology*. Thousand Oaks, CA: Sage.

Layzer, J. A. (2011). Cold front: How the recession stalled Obama's clean-energy agenda. In T. Skocpol & L. R. Jacobs (Eds.), *Reaching for a new deal: ambitious governance, economic meltdown, and polarized politics in Obama's first two years*. New York: Russell Sage Foundation.

lcv.org. (2013). About. *League of Conservation Voters* Retrieved December 3, 2014, from http://www.lcv.org/about/mission/

lcvactionfund.org. (n.d.). GiveGreen. *League of Conservation Voters Action Fund* Retrieved December 3, 2014, from https://givegreen.zissousecure.com/all

Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Rosenthal, S. (2014). Americans' actions to limit global warming, November 2013: Yale University and George Mason University.

Leiserowitz, A., Maibach, E. W., & Roser-Renouf, C. (2009). Global warming's six Americas 2009: An audience segmentation analysis: Yale Project on Climate Change and the George Mason University Center for Climate Change Communication.

Lemley, M. A., & Lessig, L. (2001). The end of end-to-end: Preserving the architecture of the Internet in the broadband era. *UCLA Law Review, 48*, 925.

Lessig, L. (2006). *Code*. New York: Basic Books.

Lilleker, D. G., & Jackson, N. A. (2010). Towards a more participatory style of election campaigning: The impact of Web 2.0 on the UK 2010 general election. *Policy & Internet, 2*(3), 69-98.

LinkedIn. (2014). LinkedIn advertising guidelines. *LinkedIn Corporation* Retrieved January 15, 2014, from http://www.linkedin.com/legal/pop/pop-sas-guidelines

Lombard, M., Snyder Duch, J., & Bracken, C. (2002). Content analysis in mass communication: Assessment and reporting of intercoder reliability. *Human communication research, 28*(4), 587-604.

MacKinnon, R. (2012). *Consent of the networked: The world-wide struggle for internet freedom* (Kindle ed.). New York: Perseus Books Group.

MacWorld. (2012). Tim Cook outlines vision of post-PC world. *MacWorld* Retrieved April 25, 1012, from http://www.macworld.com/article/1165765/tim_cook_outlines_vision_of_post_pc_world.html

Maibach, E. W., Nisbet, M., Baldwin, P., Akerlof, K., & Diao, G. (2010). Reframing climate change as a public health issue: an exploratory study of public reactions. *BMC Public Health, 10*(1), 299-299.

McAdam, D. (1986). Recruitment to high-risk activism: The case of Freedom Summer. *American Journal of Sociology*, 64-90.

McAdam, D., McCarthy, J. D., & Zald, M. N. (1996). Introduction: Opportunities, mobilizing structures, and framing processes--toward a synthetic, comparative perspective on social movements. In D. McAdam, J. D. McCarthy & M. N. Zald (Eds.), *Comparative perspectives on social movements: political opportunities, mobilizing structures, and cultural framings* (pp. 1-20). Cambridge England ; New York: Cambridge University Press.

McCarthy, J. D., & Zald, M. N. (1977). Resource mobilization and social movements: A partial theory. *American journal of sociology*, 1212-1241.

McKibben, B. (2009). With climate agreement, Obama guts progressive values, argues McKibben. *Grist* Retrieved June 20, 2012, from http://grist.org/article/2009-12-18-with-climate-agreement-obama-guts-progressive-values/

McKibben, B. (2013). *Oil and honey: The education of an unlikely activist* (Kindle ed.): Henry Holt and Co.

Merry, M. K. (2010). Emotional appeals in environmental group communications. *American Politics Research, 38*(5), 862-889.

Merry, M. K. (2012). Environmental groups' communication strategies in multiple media. *Environmental Politics, 21*(1), 49-69.

Montgomery, K. C. (2013). Protecting children's privacy online: The battle continues. *Human Rights Magazine* Retrieved November 12, 2013, from http://www.americanbar.org/publications/human_rights_magazine_home/2013_vol_39/may_2013_n2_privacy/protecting_childrens_privacy.html

Moore, G., Silberman, M., & Butler, L. (2010). Offline-to-online-to-offline: Lessons learned in building a custom community platform. *Frogloop: Care2's Nonprofit Marketing Blog* Retrieved June 23, 2012, from http://www.frogloop.com/care2blog/2010/9/14/offline-to-online-to-offline-lessons-learned-in-building-a-c.html

Moser, S. C., & Dilling, L. (2011). Communicating climate change: Closing the science-action gap. In J. S. Dryzek, R. B. Norgaard & D. Schlosberg (Eds.), *The Oxford handbook of climate change and society* (pp. 161-174). Oxford: Oxford University Press.

Mossberger, K., Tolbert, C. J., & McNeal, R. S. (2008). *Digital citizenship: The Internet, society, and participation*. Cambridge, Mass: MIT Press.

Nadkarni, A., & Hofmann, S. G. (2012). Why do people use Facebook? *Personality and Individual Differences, 52*(3), 243-249.

Nah, S., Veenstra, A. S., & Shah, D. V. (2006). The Internet and anti-war activism: A case study of information, expression, and action. *Journal of Computer-Mediated Communication, 12*(1), 230-247.

Nielsen, R. K. (2011). Mundane internet tools, mobilizing practices, and the coproduction of citizenship in political campaigns. *New Media & Society, 13*(5), 755-771.

Nisbet, M. C. (2009). Communicating climate change: Why frames matter for public engagement. *Environment: Science and Policy for Sustainable Development, 51*(2), 12-23.

Nisbet, M. C. (2011). Climate shift: Clear vision for the next decade of public debate. Washington, D.C.: American University School of Communication.

Nisbet, M. C., & Kotcher, J. E. (2009). A two-step flow of influence? Opinion-leader campaigns on climate change. *Science Communication, 30*(3), 328-354.

Nisbet, M. C., Markowitz, E. M., & Kotcher, J. E. (2012). Winning the conversation: Framing and moral messaging in environmental campaigns. In L. Ahern & D. Bortree (Eds.), *Talking green: Exploring current issues in environmental communication* (pp. 9-36). New York: Peter Lang.

Nordhaus, T., & Shellenberger, M. (2007). *Break through: From the death of environmentalism to the politics of possibility*: Houghton Mifflin Harcourt.

nrdc.org. (2012). Consolidated statement of activities for the year ending June 30, 2012. *Natural Resources Defense Council* Retrieved December 3, 2014, from http://www.nrdc.org/about/finances2012.pdf

nrdc.org. (n.d.). About us. *Natural Resources Defense Council* Retrieved December 3, 2014, from http://www.nrdc.org/about/

Obar, J., Zube, P., & Lampe, C. (2012). Advocacy 2.0: An analysis of how advocacy groups in the united states perceive and use social media as tools for facilitating civic engagement and collective action. *Journal of Information Policy, 2*, 1-25.

Olson, M. (1971). *The logic of collective action: Public goods and the theory of groups*. Cambridge, MA: Harvard University Press.

Pariser, E. (2011). *The filter bubble: What the Internet is hiding from you*. New York: The Penguin Press.

Pooley, E. (2010). *The climate war: True believers, power brokers, and the fight to save the Earth* (1st ed.). New York: Hyperion.

Price, V. (2008). The public and public opinion in political theories. In W. Donsbach & M. Traugott (Eds.), *Sage Handbook of Public Opinion Research*. Newbury Park, CA: Sage Publications.

Riffe, D., Lacy, S., & Fico, F. G. (2008). *Analyzing media messages: Using quantitative content analysis in research*. Mahwah, NJ: Lawrence Elbaum Associates, Inc.

Rojas, H., & Puig-i-Abril, E. (2009). Mobilizers mobilized: Information, expression, mobilization and participation in the digital age. *Journal of Computer-Mediated Communication, 14*(4), 902-927.

Rowell, A. (2013). Facebook bans ad criticising Mark Zuckerberg's pro-KXL stance. *The Price of Oil* Retrieved January 16, 2014, from http://priceofoil.org/2013/05/01/facebook-bans-ad-criticising-pro-kxl-stance/

Saltzer, J. H., Reed, D. P., & Clark , D. D. (1984). End-to-end arguments in system design. *ACM Transactions on Computer Systems, 2*(4), 277-288.

Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of Communication, 49*(1), 103-122.

Sengupta, S. (2013). Technology industry lobbying group loses supporters. *The New York Times* Retrieved January 16, 2014, from http://www.nytimes.com/2013/05/11/technology/teslas-elon-musk-leaves-zuckerbergs-fwdus.html

Shabecoff, P. (1988). Global warming has begun, expert tells Senate. *The New York Times* Retrieved April 17, 2013, from http://www.nytimes.com/1988/06/24/us/global-warming-has-begun-expert-tells-senate.html

Shaiko, R. G. (2012). It wasn't easy being green in 2010: The League of Conservation Voters and the uphill battle to make the environment matter. In P. S. Herrnson, C. J. Deering & C. Wilcox (Eds.), *Interest Groups Unleashed* (pp. 153-169). Thousand Oaks, Calif.: CQ Press.

Shellenberger, M., & Nordhaus, T. (2005). The death of environmentalism. *Grist Magazine, 13*.

Sheppard, K. (2009). Gore's green groups kick into campaign mode to push climate legislation. *Grist* Retrieved December 29, 2010, from http://grist.org/article/2009-05-27-gore-group-campaign-mode/

Shirky, C. (2008). *Here comes everybody: The power of organizing without organizations*. New York: Penguin Press.

sierraclub.org. (2006). Sierra Club purposes and goals. *Sierra Club* Retrieved December 2, 2014, from http://sierraclub.org/policy/downloads/goals.pdf

sierraclub.org. (2013). Membership benefits. *Sierra Club* Retrieved December 2, 2014, from http://action.sierraclub.org/site/PageServer?pagename=benefits

sierraclub.org. (2014). Sierra Club chapters. *Sierra Club* Retrieved December 2, 2014, from http://www.sierraclub.org/chapters/

sierraclub.org. (2014). Sierra Rise. *Sierra Club* Retrieved January 14, 2014, from http://content.sierraclub.org/sierrarise/

sierraclub.org. (n.d.). Beyond Coal: About us. *Sierra Club* Retrieved December 2, 2014, from http://content.sierraclub.org/coal/about-the-campaign

sierraclubfoundation.org. (2012). Momentum to win: The Sierra Club Foundation annual report 2012. *Sierra Club Foundation* Retrieved December 2, 2014, from http://www.sierraclubfoundation.org/sites/sierraclubfoundation.org/files/TSCF_AR_2012_FINAL-web.pdf

Singer, N., & Duhigg, C. (2012). Tracking voters' clicks online to try to sway them. *The New York Times* Retrieved November 23, 2012, from http://www.nytimes.com/2012/10/28/us/politics/tracking-clicks-online-to-try-to-sway-voters.html

Skocpol, T. (2003). *Diminished democracy: From membership to management in American civic life*. Norman: University of Oklahoma Press.

Skocpol, T. (2013). Naming the problem: What it will take to counter extremism and engage Americans in the fight against global warming *The Politics of America's Fight against Global Warming*: Harvard University, Columbia School of Journalism, and the Scholars Strategy Network.

Snow, D. A. (2001). *Collective identity and expressive forms*. CSD Working Papers. Center for the Study of Democracy, UC Irvine.

Snow, D. A., & Benford, R. D. (1988). Ideology, frame resonance and participant mobilization. *International Social Movement Research, 1*, 197-217.

Snow, D. A., Rochford, E. B., Jr., Worden, S. K., & Benford, R. D. (1986). Frame alignment processes, micromobilization, and movement participation. *American Sociological Review, 51*(4), 464-481.

Stromer-Galley, J. (2014). *Presidential campaigning in the internet age* (Kindle ed.). New York, NY: Oxford University Press.

Sunstein, C. R. (2001). *Republic.com*. Oxford: Princeton University Press.

Tarrow, S. G. (2011). *Power in movement: Social movements and contentious politics*. Cambridge, UK: Cambridge University Press.

Tilly, C. (1984). Social movements and national politics. In C. Bright & S. Harding (Eds.), *Statemaking and social movements: Essays in history and theory* (pp. 297–317). Ann Arbor, MI: University of Michigan Press.

Tilly, C. (2004). *Social movements, 1768-2004*. Boulder: Paradigm Publishers.

Unger, D. (2013). Keystone XL pipeline protest marks first civil disobedience by Sierra Club. *The Christian Science Monitor* Retrieved December 3, 2014, from http://www.csmonitor.com/Environment/Energy-Voices/2013/0214/Keystone-XL-pipeline-protest-marks-first-civil-disobedience-by-Sierra-Club

Van Laer, J., & Van Aelst, P. (2010). Internet and social movement action repertoires: Opportunities and limitations. *Information, Communication & Society, 13*(8), 1146-1171.

Van Schewick, B. (2010). Network neutrality: Ahat a non-discrimination rule should look like. *SSRN Working Paper Series*.

Walsh, B. (2008). 'We' climate campaign: Glossy, but will it work? *Time* Retrieved December 29, 2013, from http://content.time.com/time/health/article/0,8599,1837761,00.html#ixzz2XxYBfuxC

Waters, S., & Ackerman, J. (2011). Exploring privacy management on Facebook: Motivations and perceived consequences of voluntary disclosure. [Article]. *Journal of Computer-Mediated Communication, 17*(1), 101-115.

wearepowershift.org. (n.d.). History of Power Shift. *Energy Action Coalition* Retrieved December 28, 2013, from http://www.wearepowershift.org/about/history

wearepowershift.org. (n.d.). Our work. *Energy Action Coalition* Retrieved December 28, 2013, from http://www.energyactioncoalition.org/about/our-work

Winner, L. (1980). Do artifacts have politics? *Daedalus, 109*(1), 121-136.

Yao, Q. (2009). An evidence of frame building: Analyzing the correlations among the frames in Sierra Club newsletters, national newspapers, and regional newspapers. *Public Relations Review, 35*(2), 130-132.

Youmans, W. L., & York, J. C. (2012). Social media and the activist toolkit: User agreements, corporate interests, and the information infrastructure of modern social movements. *Journal of Communication, 62*(2), 315-329.

Zimmer, M. (2010). "But the data is already public": On the ethics of research in Facebook. *Ethics & Information Technology, 12*(4), 313-325.

Zittrain, J. (2008). *The future of the internet and how to stop it*. New Haven, CT: Yale University Press.