

## Chapter 1

### **Reinventing the political: How climate change communication can breathe new life into contemporary democracies**

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#### **1. Teetering on the edge**

Scientific research increasingly indicates that climate change presents enormous threats to life as we know it (e.g. Kiehl, 2011; Shakhova et al., 2010; Vermeer and Rahmstorf, 2009;) but, despite the economic slump of the last few years, the levels of greenhouse gas emissions continue to grow. Existing policies seem insignificant in the face of what is required to avert the worse impacts of climate change and national and international politics appears to be plagued by perpetual impasse. While standing on the edge of disaster, the main problem we face is a political one.

Climate change politics may involve more stakeholders than any other issue: governments play a key part but so do international organizations, corporations and non-governmental organizations. Moreover, climate change can only be effectively addressed with sustained citizen engagement. The far-reaching transformations that are needed to respond to climate change and to move to a different model of energy production and use require the involvement of citizens at the political level: decisions have to be made in a democratic way that is simultaneously inclusive and effective in the long-term.

Despite politically influential actors attempting to downplay its significance, society has found climate change impossible to ignore. The large increase in social movement action on climate change in the last few years suggests that civic interest and participation are on the rise. At the same time, most people remain remarkably disengaged from climate change politics. *Climate Change Politics: Communication and Public Engagement* is concerned with how climate change communication may contribute to a transformation of politics. It examines connections between a sense of political powerlessness and the symbolic environment in which current democratic politics is enacted, as well as how a rapidly changing communication context may open new political possibilities as it closes off others. With widespread transformations in the processes of production and consumption of mediated messages, new spaces for political interaction are emerging.

Climate change communication has the potential to induce significant transformations in civic politics. As an issue that cuts across so many sectors and scales, climate change and communication about climate change are redefining the boundaries between the public and the private, political and

domestic, subject and community. Just as political action may affect climate change, climate change may affect the political. This book explores how people's sense of engagement with collective problems may change as they address the questions posed by climate change, how new political identities for citizens develop in response to the dilemmas involved in climate change, and how the meaning of climate change is redefined in communicative practices in ways that sediment or instead shake the edifice of politics and the relations between politicians and citizens.

This exploration of connections between communication and the political includes analyses of how we represent, construct and circulate ideas about climate change, and how these practices translate into decisions and public policies, as well as how they relate to political identities. Given the multifaceted nature of climate change, multi- and interdisciplinary approaches are needed to understand different dimensions of the issue and their interconnections. Drawing on a variety of research fields, from media and political sociology to popular education, this book initiates a dialogue between theoretical traditions that enrich our comprehension of relations between communication and the politics of climate change.

The chapters in this book examine various forms of climate change communication, including artistic expression ranging from installations to cinema, on web-based spaces, and on other alternative – i.e., non-mainstream – media. They analyze a range of semiotic resources and practices within which the meanings of climate change are negotiated. All chapters examine social transformation as it links with communication practices; or how issues are managed and by whom based on certain hegemonic discourses. They describe how some discourses become hegemonic and others are marginalized, and how this shifting symbolic landscape translates into political subjectivity. By looking at the multiple ways people experience and represent climate change, we take the analysis beyond the cognitive to include emotional, aesthetic and other epistemologies that shape political engagement with this issue.

In this chapter we first explore how the ironic position of politics in a society that has been labeled *post-political* constrains climate change politics. We then suggest how citizen engagement may reinvigorate the democratic potential of politics by redirecting attention. Finally we offer a preview of the cases analyzed here, which illustrate possible routes for this redirection.

## **2. The political in climate change politics**

In a special issue of *Theory, Culture & Society* published in 2010, where a set of prominent thinkers reflected on climate change, Erik Swyngedouw pointed out an apparent paradox: while climate change and its consequences have been elevated to key policy issues in the last few years, many analysts claim that social life has become depoliticized in contemporary democracies, that dispute and confrontation have been erased from the public sphere and replaced by technocratic and consensually framed modes of management of public problems. As Swyngedouw noted, scholars such as Chantal Mouffe, Jacques Rancière and Slavoj Žižek have offered critiques of this situation termed as 'post-democratic' or 'post-political' (Mouffe, 2005; Rancière, 2006; Žižek, 1999).

So what kind of politics is associated with climate change? Swyngedouw argues that, by being presented in apocalyptic terms and reduced to a problem of CO<sub>2</sub> emissions, climate change itself has given rise to a hegemonic populist proposal that promises solutions within the structures of capitalism and the market economy. The framework of 'sustainability' offers what appears to be the only way out and does so without requiring any fundamental social or political change. Swyngedouw maintains that the hegemonic discourse of sustainability threatens to overdetermine the political options:

'the sustainability argument has evacuated the politics of the possible, the radical contestation of alternative future socio-environmental possibilities and socio-natural arrangements, and has silenced the antagonisms and conflicts that are constitutive of our socio-natural orders by externalizing conflict.' (Swyngedouw, 2010, p. 228)

Others have previously suggested that the discourse of sustainable development has become hegemonic because it is a consensual language that gets its force, in part at least, from its ambiguity (Luke, 1995; Peterson, 1997). It has a disciplinary role in relation to more radical forms of environmental discourse and mobilization, annihilating the possibility of opposition. Several studies have demonstrated that the related discourses of sustainable development and ecological modernization have been naturalized and neutralized by the media, a key element of contemporary public spheres (Carvalho, 2005b; Carvalho and Pereira, 2008), excluding more socially transformative discourses.

Swyngedouw maintains that a similarly hegemonic approach to climate change has contributed to the already ongoing de-politicization of public life. Dissent and disagreement have no space in a managerial framework that claims to 'solve the problem' while leaving comfortable lifestyles untouched. Instead, a series of mechanisms have been put in place to regulate and trade emissions of greenhouse gases through institutional arrangements and voluntary measures. This can be viewed as a form of governmentality (Dean, 1999; Foucault, 1991; Rose, 1999) that spans multiple scales and involves different agents through techniques of domination and technologies of subjectification.

Looking at a range of texts from international organizations, Methmann (2010) has recently argued that climate protection has been transformed into an empty signifier (a concept employed by Laclau and Mouffe, 1985) that is employed by a multitude of bodies to justify the continuation of their practices which have, paradoxically, contributed to the problem. Thus, the World Trade Organization, for instance, frames climate change as a trade problem and promotes further liberalization to address it. The International Monetary Fund promotes a green fund as a technical solution to the problem that would be more effective than political negotiations. Both bodies, together with the Organization for Economic Cooperation and Development and the World Bank, construct economic growth as the priority in any climate-oriented policies, which are therefore expected to promote growth. Climate protection is thus integrated into 'the global hegemonic order without changing the basic social structures of the world economy' (Methmann, 2010, p. 348). 'Put bluntly, climate mainstreaming fits well in the overall project of sustainable development, that is, 'sustaining capitalism' in its present condition.' (id., p. 369).

These accounts suggest that despite the unique nature and scale of climate change, the primary responses have been limited to politics-as-usual and have deepened dominant modes of governing

the world. Is this all there is in climate change politics? Where is the political in climate politics? Inspired by the writings of Chantal Mouffe (e.g. 1993/2005; 2000; 2005), we describe *the political* as engagement with processes of debate and decision-making on collective issues where different values, preferences and ideals are played out and opposed<sup>1</sup>. Given this definition, climate change communication as described by Swyngedouw (2010), Methmann (2010) and others (Carvalho, 2005a; Paterson and Stripple, 2010), may indeed have evacuated all political dimensions from this ironically political issue.

As much as Swyngedouw's (2010) and Methmann's (2010) perspectives do justice to the way many things are run, there are contrasting tendencies in the wider politics of climate change. In fact, activism on climate change has emerged as one of the most prominent forms of citizen-led politics (Endres et al., 2009). In the months and years of the run up to the United Nations Framework Convention on Climate Change (UNFCCC) 15<sup>th</sup> Conference of the Parties (COP 15) in December 2009, a large social movement developed around the goal of achieving an ambitious international agreement to curb greenhouse gas emissions. It converged in Copenhagen in the form of tens of thousands of demonstrators, a display of public mobilization of historical proportions. The achievements of campaigns such as *350.org* (see ch. 6) and *Tck tck tck, the World is Ready* in organizing hundreds of events all around the world prior to COP15 are also worth mentioning. The resounding failure of the summit to shape new international policies certainly dampened some of the civic energy around climate change. But civic action extends far beyond occasional street demonstrations. From protest groups such as *Plane Stupid* to community-based projects such as *Transition*, a range of social initiatives have emerged and expanded significantly, both within single countries and internationally. There is also a growing public involvement with what has been termed 'clickactivism', Internet-mediated forms of political expression and participation. Coexisting with these developments, polls show that most people feel powerless to address climate change and disengaged from climate politics (Yale and George Mason, 2009). The locus of climate politics is perceived as removed from individuals' sphere of influence and the global scale of the problem deters social mobilization and action. Discursive practices, especially those that dominate mass media, may play a role in the development of this form of political subjectivity (Carvalho, 2010).

This book offers a critical, yet hopeful examination of opposing signs of political vitality in the politics of climate change and discusses how people use various forms of critique, contestation and alternative thinking to challenge the hegemonic techno-managerial approach. Because the meanings of climate change and of the numerous aspects of reality associated with it are constructed through communication, we offer an analysis of communication practices and structures as constitutive of climate change politics. The options considered and the choices made result from social interaction based on communication, whereby people play out different values and worldviews. The roles and identities of participants in those processes, such as the state and citizens, are also defined and redefined in communication.

### **3. Communication and public engagement in the politics of climate change**

Given the nature and the scale of climate change, there is a widespread acknowledgment that citizen engagement is indispensable to find effective responses. Nonetheless, as illustrated by Whitmarsh, O'Neill and Lorenzoni's (2010, p. 2-3) recent book, understandings of citizen engagement vary significantly, as do the goals and values of those *engaged on engaging* the public:

'(...) most Western governments have an interest in engaging the public in debate about the type of society they want to live in and empowering communities to bring about change to that effect. Here, the focus is on public participation in policy making, community decision making and grassroots innovation. (...) For other groups there may be different reasons for being interested in the public's understanding of and responses to climate change. Businesses may be involved with formal climate change communication as part of a corporate social responsibility or a product marketing agenda (and often both); and nongovernmental organizations (NGOs) may do so because climate change intersects with their existing environmental and social concerns and interests.'

We argue that at least three different modes of public engagement are associated with different views of climate change politics and communication. They range from *social marketing*, through *public participation*, to *agonistic pluralism*. The first mode of public engagement with climate change, which provides the lightest form of social intervention, involves persuading individual citizens to voluntarily modify some aspect of their energy-related behavior or accept some policy proposal that typically stays within the limits of existing economic and institutional structures (Moser & Dilling, 2007; Nisbett, 2009). In the last decade or so, multiple social actors have promoted the idea that 'we should all do our bit'. From government to civil groups, numerous organizations call for 'small acts' such as switching to low consumption light bulbs and unplugging appliances when not in use. Some throw flying in the spotlight and advocate carbon offsetting. In all these examples, responsibility for climate change is individualized and the political realm is reduced to lifestyle choices. People are typically addressed as individual consumers rather than as a community that can act collectively on climate change.

Attempts to engage the public in this first mode typically involve social marketing tools. Market research, cognitive theory and strategic communication are employed to appeal to individual behavior change. For example, Greenpeace has used the polar bear to inspire people to act on climate change (Slocum, 2004). A range of other organizations, from the United Nations Environment Program (UNEP/Futerra, 2005) to WWF-UK, Climate Outreach and Information Network (COIN), Campaign to Protect Rural England (CPRE), Friends of the Earth (FOE) and Oxfam (Crompton, 2010) have attempted to ascertain the optimal communication strategies for environmental matters. O'Neill and Nicholson-Cole (2009) explored the utility of fear as a motivator for individual action to mitigate climate change, and Nisbet and Kotcher (2009) documented the use of personalized blogs to develop and maintain a strong relationship with potential climate change activists.

Social marketing campaigns emphasize communication's instrumental, rather than its constitutive dimensions, and serve the purpose of persuasion by employing demonstrably effective communication formulas in a top-down process. Consistent with this perspective, Lakoff (2010) and Nisbet (2009) claim that appropriate framing is a basic tool for persuading citizens to support climate change policy. Moser and Dilling (2007) assert that motivating individual action through persuasive communication

and education offers a powerful basis for social change needed in response to anthropogenic climate change.

Brulle (2010), however, maintains that by professionalizing communication and thereby turning communication experts into the arbiters of environmentalism, social marketing further excludes citizens from the processes of decision-making that are needed to deal with climate change (see also Corner & Randall, 2011). Similarly, Paterson and Stripple (2010) argue that social marketing can be read as a form of governmentality (cf. Dean, 1999; Rose, 1999). Brulle (2010) argues that social marketing campaigns fail to promote the political mobilization that is required to enact the vast transformations that are necessary to address climate change. In his view, by focusing on 'short-term pragmatic actions that fit within economic and political imperatives' (p. 83), these strategies actually undermine efforts to address climate change. This mode of public engagement functions well within the logic of economically liberal democracies. It fits the hegemonic techno-managerial discourses of sustainable development and ecological modernization that we discussed earlier.

The second mode of public engagement involves enhancing the role of citizens in policy-making processes through public participation arrangements. In the last few decades, in academia and in the political sphere, multiple voices have called for forms of governance that further the participation of the public in political decision-making. The movement for Public Engagement with Science and Technology has promoted the inclusion and the participation of citizens in matters that involve scientific and technologic knowledge and in corresponding political decisions (e.g. House of Lords Select Committee on Science and Technology, 2000). Citizen participation in environmental issues has been promoted as the guarantor of better and more accountable decisions (e.g. Coenen, 2010; Dietz and Stern, 2008). In political arenas, there is increasing recognition that the strength of democracies and the quality of decisions is a function of public participation and engagement. The U.S. National Environmental Policy Act (1970), the Rio Declaration on Environment and Development (1992) and the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (1998) have all decreed the importance of public participation and access to information on environmental issues.

As Arnstein pointed out in her 1969 seminal article, the 'ladder of participation' has several steps, and public participation is arranged in different shades, from information to consultation and to deliberation. While it has mainly taken the form of information-gathering and public consultation, various countries have experimented with citizen juries, consensus conferences and other deliberative formats of public participation (e.g. Kleinman, Delborne and Anderson, 2011). However, the impacts of these exercises are limited. The institutional and socio-cultural conditions for dialogical communication between citizens, researchers, policy-makers and other stakeholders have rarely been fulfilled and public participation is often viewed as a mere legitimation tool that can be quite exclusionary (e.g. Besley, 2010; Braun and Schultz, 2010).

Delgado, Kjølberg and Wickson (2010) have argued that there are tensions and ambiguities regarding rationales of public participation, who is a relevant participant, pros and cons of invited versus self-organizing citizen groups, the stage at which citizens should be involved, and context specificity versus transferability of public participation models. In a study of discourses on civic

engagement with climate change in Denmark, Lassen et al. (2011) confirmed these problems as they found vagueness and lack of clarity regarding citizen roles in policy processes. One of the cases they studied was led by a Danish municipality, Frederikshavn, that aims to rely exclusively on renewable sources of energy by 2015 and that has called for citizen activism on climate change to help them reach that goal, a paradoxical appeal, given that activism is normally a means of protesting, rather than buttressing, centralized control.

Another initiative worth mentioning, which attempted to involve citizen voices at a different scale, is World Wide Views on Global Warming (WWViews), a 'global' consultation process led by the Danish Board of Technology. 38 countries took part in organizing local deliberations on 26 September 2009. The process involved group discussions on various aspects of climate change and the formulation of a consensus message for negotiators at the COP15. The stated goal of WWViews was 'to give a broad sample of citizens from across the world the opportunity to influence the COP15 negotiations and thereby the future of global climate policy ... [and] to demonstrate that political decision-making processes on a global scale can benefit from the participation of ordinary people' (World Wide Views on Global Warming, n/d). Analyzing the Danish local deliberation event, Phillips (2011) has shown how the dynamics of inclusion of citizens and the inevitable exclusion of many voices constrain the practice of deliberation in top-down approaches to the production of consensus.

Public participation in policy processes, such as in the case of WWViews, has been predominantly advocated in the context of models of deliberative politics (e.g. Dryzek, 2000; Gastil and Levine, 2005; Habermas, 1996). Drawing on Habermasian notions of communication, these models assume that it is possible and desirable to achieve consensus on collective issues through rational argumentation<sup>2</sup>. Also designated as discursive politics, this view places faith in the possibility of reaching agreement through argumentation. Communication is here viewed as mainly a process of cognitive influence through information and good reasoning. Chantal Mouffe (e.g. 1993/2005) has challenged this view of democratic politics maintaining that neither can rational decisions be reached through communicative exchanges nor is a fully inclusive consensus possible. As power differences always play in political relations, any consensus is exclusionary and therefore it is an illusion that harmonious solutions that satisfy all can ever be reached. Lassen et al. (2011) and Phillips (2011) provide specific illustrations of these tensions in climate politics.

Public participation in politics is not necessarily limited to formal political arrangements where people's roles and possibilities of intervention are pre-defined. It also can take the shape of uninvited action such as media campaigns, public debates or demonstration where 'self-selected actors [...] turn into participants through collective actions' (Braun & Schultz, 2010, p. 407).

While social marketing and formal public participation are top-down managerial practices, citizen-led political participation is initiated from the bottom-up. Engagement starts with citizens who see faults in the ways formal political institutions deal with climate change and advance alternative forms of governance, be it proposals for different governmental policies or social and economic changes. This involves dissent over alternative political projects. The third mode of engagement, as discussed below, cultivates political conflict and rejects the viability of consensus between opposing viewpoints.

Peterson et al. (2005) note that officially sanctioned public participation practices often require bracketing conflict, and thus treating the current political hegemony as truth. As Mouffe (2000) contends, the illusion of consensus is fatal to democracy because a healthy democratic process requires recognition of differing interests and the recognition that open conflict over differing interests is legitimate. Turning to the relations between discourse and politics, Ivie (2004, p. 21) specifies that, 'democratic dissent ... is as alarming to the purveyors of prevailing opinion as it is critical to a nation's political welfare.' Ivie (2004) and Peterson et al. (2005) add that dominant elites generally prefer consensus-based approaches over those based on debate because they have access to sufficient resources to hold out until some semblance of consensus is reached. Reliance on squelching argumentation not only jeopardizes democracy by legitimizing existing hegemonic configurations of power and precluding resistance against dominant elites. It artificially reduces power relationships to superficial conflicts of interest, presumably reconcilable through mutual good will. Without debate regarding their political dimensions, for example, government practices that contribute to anthropogenic climate change are naturalized. In the absence of such debate, existing hierarchies become uncontested reality rather than outgrowths of neo-liberal economic goals with serious implications for the global climate.

The notion of politics that underpins the third mode of engagement with climate change places difference and confrontation at the center of public life. Chantal Mouffe (e.g. 1993/2005) argues that conflict and antagonism are inevitable in social life and that it is necessary to envisage ways to create a pluralistic democratic order that can make space for those differences.

'Liberal democracy requires consensus on the rules of the game, but it also calls for the constitution of collective identities around clearly differentiated positions and the possibility of choosing between real alternatives. This 'agonistic pluralism' is constitutive of modern democracy and, rather than seeing it as a threat, we should realize that it represents the very condition of existence of such democracy.' (Mouffe, 1993/2005, p. 4)

The notion of agonistic politics builds on a distinction between antagonism (between enemies) and agonism (between adversaries). Whereas an enemy is to be excluded from the polis, an adversary's existence is accepted as legitimate, including the right to defend their ideas.

Advancing the project of a 'radical and plural democracy' Mouffe (1993/2005; 2000; 2005; see also Laclau and Mouffe, 1985) advocates conceptualizing democracy in terms that not only allow for, but encourage confrontation and pluralism. She offers the democratic paradox as an alternative to the universalist-rationalist perspective (Habermas, 1996; Rawls, 1993) that has dominated political theory from the last half of the 20th century. Where the universalist-rationalist perspective shares with enlightenment science the aim of establishing universal truths independent of context, the agonistic perspective contends that the 'illusion of consensus and unanimity' is fatal to democracy because a 'healthy democratic process' requires the 'vibrant clash of political positions and an open conflict of interest' (Mouffe, 2000, p. 130). Agonistic politics entails continual negotiation of the democratic paradox between individual freedom and community equality, without seeking an impossible reconciliation between the two. It neither supports accepting all views as equally valid, which leads to anarchy, nor building an artificial consensus, which leads to authoritarianism and tyranny. To avoid



both anarchy and tyranny, a polity must find ways to enable political clash, and it must do so in a way that ensures appropriate representation of community members who are less likely to be heard (Peterson, M. N., Peterson & Peterson, 2005; Peterson et al., 2006). As Ivie (2011) demonstrates, dissonance is needed to invite contestability and to critique the terms that threaten to compromise political difference.

An agonistic approach to democratic politics sets aside the assumption that once its citizens become rational every nation will eventually accept a similar brand of liberal democracy. Rather than constructing democracy as a fragile ornament that must be protected, even curtailed or suspended when chaos threatens, and deferred or delegated until divisive circumstances subside and a political culture made up of reliably informed and rational citizens finally emerges, it proposes democracy as an open clash of political positions that may occur today (Ivie, 2004; 2011).

Although centrist approaches, such as the Washington Consensus in the United States and the Third Way in the European Union, enjoy political success, the consensus-based democracy they represent weakens both liberty and freedom (Mouffe, 2000). The focus on meeting in the middle has meant giving up both the quest for equality and the quest for liberty and has been achieved only by relegating emotional and aesthetic epistemologies to an extra-political sphere. In such a context, it makes perfect sense to proclaim a post-political world, for a value-free politics is irrelevant.

Agonistic politics holds special potential in the case of climate change communication because climate change is the opposite of the ideal situation for consensus. Consensus processes are ideal for situations where 'scientific information about an environmental issue has high predictive power and its application is relatively uncontested' (Peterson et al., 2005, p. 766). In disputes that are laden with sharp power differentials and complex uncertainties, however, the drive toward consensus reinforces public apathy and cynicism, and reinforces existing power relationships (Peterson et al, 2006; Toker, 2005). Given that climate change policy is the antithesis of an issue that is likely to be resolved by consensus decision making, citizen dissent emerges as extraordinarily important.

Political struggles, be they more or less apparent, are inscribed in a diversity of communication practices, from political speeches to mainstream and alternative media and to artistic forms. As suggested by numerous scholars (e.g. Fairclough, 2003; Ivie, 2001; Wodak, 2011) - whose understandings of 'discourse' do not necessarily coincide - discursive processes can contribute to solidifying the political status quo but can also help transform it. On the one hand, certain discursive constructions sediment, harden and become dominant, appearing natural and objective. They constrain the range of legitimate political options, what is viewed as acceptable, doable and thinkable at a given moment in a given society. On the other hand, it is (almost) always possible to challenge and modify political ideas and political arrangements through alternative discourses that may be created and promoted by certain individuals, groups or critical communities. Political and institutional change takes place when hegemonic discourses are de-legitimated and alternative ones gain social acceptance.

In agonistic politics, discourse is seen as fundamentally constitutive of the social. In fact, Laclau and Mouffe's (1985) notion of discourse is not limited to language but encompasses all social phenomena. In their anti-essentialist view of the social world the meaning of objects and actions is

constructed through changing systems of difference. Partial (and temporary) fixation of meaning occurs through 'articulatory practices' that involve the construction of 'nodal points' but allows for different discourses to emerge that may challenge and modify understandings of the world. This poststructuralist approach means that there is space for agency. Social subjects are inscribed in a diversity of communication practices that create different subject positions. However, subjects have room to question and modify dominant discourses, including their role therein. As individual and group identities, including one's condition as a political subject, result from discursive processes and structures they are contingent and not fully fixed. Hence, political subjectivity depends on subject positions in a discursive structure, but possibilities for action remain always within that structure.

We maintain that combining the study of politics with communication is vitally important to understand social processes, especially around complex issues, such as climate change. Integrating discourse theory, as well as other contributions from communication studies, into the analysis of political matters can make a positive contribution in that direction. As will be illustrated by this book, different ways of viewing communication, with specific theoretical and epistemological underpinnings, generate diverse readings of climate change politics that complement each other.

#### **4. Book preview**

Chapters in this book account for all three modes of engagement with the politics of climate change described above. Some of the cases primarily discuss communication strategies played out within the limits of top-down agendas, but others refer to alternative understandings of climate change politics that have been developed or advanced by citizen groups. Categorizing the chapters to follow comes with all the attendant weaknesses of any modernist system for describing reality. It oversimplifies relationships among the essays, creating false dichotomies between those that could fall into multiple categories and masks differences among those we place in the same category. We are certain there is room for argument regarding whether any individual essay is best described as representing one category as opposed to another. The point is not to use a Procrustean approach to force essays into particular categories so much as to find a way of organizing the analyses that helps the reader think about how they articulate with each other and with our larger concern about the politics of climate change communication. Chapters two, three, and four focus primarily on engagement through social marketing, and chapters five, six and seven look at engagement mainly – albeit in no way exclusively – as public participation. Chapters eight, nine and ten focus on engagement through agonistic pluralism, while chapters four through ten all suggest connections between either social marketing or public participation and agonistic pluralism. Further, this organizational framework highlights a question suggested earlier. At least since the late 1980s, climate change has assumed an increasingly central and contested role within public discourse. The essays included in this volume examine how climate change communication has shaped and been shaped by the contemporary political landscape. Our intent is to demonstrate ways that each of these forms of public engagement may contribute

differently, yet complementarily, to a democratically informed strategy for bringing politics to bear on the issue of climate change.

This book explores cases from a wide range of countries, including Norway, Sweden, the USA, Yemen, China and India. These countries are in very different stages of economic development, represent diverse forms of political governance and also have different legal-political status in the international regime on climate change: in the context of the Kyoto Protocol to the UNFCCC (which the USA did not ratify), the first three are expected to reduce their greenhouse gas emissions while the latter three are considered developing countries and are therefore exempted from that commitment. The multi-scalar nature of climate change is often described as a challenge to effective mitigation politics. Some chapters in this book focus mainly on the national scale but several cut across geographical scales, looking at the interplay between various local, national and global spaces of communication and political action.

Chapter two offers a critical diagnosis of the possibilities of engagement with climate change from the point of view of 'ordinary citizens', i.e. people that are not actively involved in social or political movements to address the problem. Ryghaug and Næss discuss the ways in which Norwegian citizens relate to top-down communication on climate change and how they construct their roles and responsibilities, as well as roles and responsibilities of politicians, in mitigating the problem. As Laclau and Mouffe (e.g. 1985) argue, meanings are never fully fixed: they are dependent on specific uses of language (comprising verbal, visual and other semiotic resources) as well as on social and cultural contexts; similarly, identities are relational, dependent on communication practices and therefore unstable. Ryghaug and Næss examine the ways in which climate change and people's perceived powerlessness to solve it are discursively organized and (re)negotiated in the domestic context of people's daily lives. They show how understandings of climate change and of climate change politics are strongly linked to media discourses, to political discourses and to people's living conditions, and how political critique and disengagement result from perceived contradictions in political management and (in)action on the problem.

Schweizer and Thompson offer important insight into place-based public understandings of climate change. Amongst other challenges, engaging with climate change is complicated by perceptual matters, such as the disconnection with the natural world, which prevents many people from noticing subtle changes in the environment (Moser, 2010). By looking at (the potential for) communication about climate change in US national parks, they address the geographical challenges that were pointed out earlier and make crucial suggestions in terms of both cognitive and affective dimensions of engagement with climate change (cf. Lorenzoni, Nicholson-Cole and Whitmarsh, 2007), which can be politically mobilized or activated at the individual level. They note that citizens are exposed to many messages about climate change on a daily basis. Research has shown that these messages resonate more effectively when they are meaningful to the audience, framed consistently with cultural values and beliefs, and suggest specific actions that audience members feel comfortable taking. Based on place attachment theory and experiences with place-based education, they theorize that landscape-based discourse about climate change in U.S. National Parks has the potential to create new and

productive space for political action on climate change. Likewise, they use insight from place-based education and experiential learning to explain the rhetorical power of national parks in the United States. Given their compelling cultural presence in the shared (both virtual and material) experience of identifying as an 'American,' Schweizer and Thompson suggest that climate change communication in U.S. national parks has the potential to promote public awareness, and to suggest lifestyle modifications that may help mitigate climate change impacts. Their analysis of ways that National Parks in the Western United States currently communicate about climate change leads them to conclude that, although communicators in some parks use the appeal of the material place to create a site for learning about climate change impacts and adaptations by merging visitors' personal experiences with national identity, communicators in other parks completely miss the opportunity. While Schweizer and Thompson's analysis emphasizes engagement through social marketing, and therefore focuses on communicative instrumentality, their study also showcases the largely unrealized communicative potential for constituting a particular national identity out of individual visitor experiences. Ultimately, they suggest ways a physical, federally managed space can function as a forum for public engagement in climate change policy, through contributing to a deeper understanding of ecological impacts and potential management responses.

Hughes examines the role of aerial cinematography in contemporary climate change documentaries. She marries analysis of a particular shot type, which tends towards politicizing aesthetic issues, with an understanding of how it may contribute to a strategy for communicating about climate change. Her discussion of long shots in cinematography shows how media can reframe our images of human impact on the world and explores implications of this constitutive potential for engagement with climate change. She notes that contemporary documentary filmmakers use high angle extreme long shots, including aerial shots and space photography, to present evidence for the considerable effects of centuries of agriculture and industry on the environment. The visibility of large-scale landscape interventions and atmospheric effects generates spectacular visual content that can be used to persuade audiences of the material reality of climate change. These vast images offer one way to solve the conundrum of how to signify sufficient immediacy to achieve personal salience without negating awareness of the supra-human temporal and spatial scales of climate change. Enabling people to comprehend a complex global phenomenon that is plagued by uncertainty may be cause for celebration, and yet two quite distinct and opposing directions can be discerned in twenty-first century attitudes towards aerial images. The first takes the optimistic view that the rhetoric of environmentalism, supported by still and moving images, especially of the whole planet, is creating a growing activist response from audiences. The second is a more pessimistic concern that still and moving image technologies, integral to the predominantly visual culture of modernity, and particularly significant in the development of remote control surveillance and weaponry, themselves contribute to the distortion of habitable space. Hughes analyzes the aerial perspective found in the use of aerial photography, aerial cinematography, space photography and satellite images in three US climate change documentaries: *An Inconvenient Truth* (Guggenheim), *Everything's Cool* (Gold & Helfand), and *The 11th Hour* (Connors Petersen & Connors). She points out how these documentaries use extreme long shots to materialize otherwise abstract concepts drawn from climate change research.

Environmental documentary film producers have recognized the potential of cinematic long shots to persuade viewers not only of the urgency of the situation regarding climate change, but also to present possibilities for responding individually and collectively to it.

In chapter five, Carvalho and Gupta turn our attention to the explicitly political arena with their analysis of policy documents from signatories to the UNFCCC. Building from Schweizer and Thompson's claim that public engagement is a crucial (but not necessarily sufficient) motivator for developing national and international policy to mitigate anthropogenic climate change, Carvalho and Gupta argue that citizen engagement is a key factor in identifying what possibilities for mitigation and adaptation to climate change are acceptable for national governments to pursue. This engagement delineates the scope for both individual and political decision-making, as well as for the successful implementation of any measures. Although challenging, public participation in policy processes has been shown to improve the quality of political decisions through the inclusion of alternative problem definitions and forms of knowledge. Recognizing that political efforts toward climate change policy are futile without strong public engagement, the UNFCCC has committed its Parties to promote and facilitate 'the development and implementation of ... public participation in addressing climate change and its effects and developing adequate responses' (article 6). One of the instruments to assess the implementation of such a commitment is the National Communications reports to the UNFCCC. Carvalho and Gupta present a comparative analysis of National Communications of six countries: China, India, Portugal, Tuvalu, United Kingdom and USA. Those countries make very different contributions to global greenhouse gas emissions and have different degrees of vulnerability to climate change, which makes them into significant case studies. Their analysis of National Communication Reports examines what countries have done to promote public participation on climate change and how their reports discursively construct citizens' status and identities, as well as state-society relations.

The two following chapters share a focus on how various groups have used the Internet in response to the challenging spatial scale of climate change communication. Firstly, Jönsson and Feldpausch-Parker et al. account for forms of Web-mediated activism that involve some form of collective organization and action suggesting that communication structures may significantly enhance possibilities of engagement with the politics of climate change. Secondly, both chapters analyze forms of engagement with climate change that span across several spatial scales and that, in some ways, can be considered global, a political space that can be especially difficult for citizens to access.

Jönsson's study of Facebook and Second Life shows that citizens, both individually and in the context of NGOs, are developing alternative forms of governance in virtual spaces. These online communities can be viewed as bottom-up political spaces. Albeit with little impact in 'real' politics, these developments will likely influence political subjectivities and are therefore significant. New information and communication technologies, and especially the Internet, offer an important potential to remake the political. In fact, many have associated the Internet with a revival of democracy by highlighting its role in the mobilization of social movements and political activism (e.g. Atton, 2004; Dahlberg and Siapera, 2007). Yet we remain sceptical about the claim that the Internet alone will bring us closer to Mouffe's radical and plural democracy. While a potentially more open and more

democratic alternative to traditional communication opportunities, the Internet also creates new divides along age, income and country lines. This poses new questions. Whereas Jönsson convincingly makes the case for transnational deliberative politics, we can evoke Mouffe's critique and note that exclusionary processes are likely to be even more acute at this scale and consensus are likely to be even more fraught with distortions. Still, as Jönsson points out, online spaces can enhance political expression beyond the constraints of national boundaries and contribute to the development of new forms of civic debate.

Feldpausch-Parker et al. examine 350.org, a campaign promoting a limit of 350 parts per million (ppm) of CO<sub>2</sub>-equivalent in the atmosphere, largely below the 450 ppm-limit that is roughly associated with the 2°C target<sup>3</sup> that is proposed by the European Union and other players that are considered to be at the political forefront of climate policy. In itself the 350 ppm goal is a radically different political target, which would require substantive transformations at the level of government, economy and society. Moreover, the campaign involved a large number of (communicative) events that were conceived and put in place by citizen groups as politically-meaningful acts. Feldpausch-Parker et al. draw on Giddens' structuration theory to argue that the public can mobilize resources, including, but not limited to, communication, to influence policy-makers. Apart from the potential for actual transformation of (inter)governmental politics, this project suggests that citizens around the world feel politically motivated to self-constitute into agents of protest and debate on climate change, challenging the claims that current democracies are post-political. 350.org initiatives aimed to offer an alternative to governmental politics. Although they are very diverse, all those communicative actions constitute the citizen into an actor of 'the political', the confrontation of proposals to respond to collective problems.

In the following chapter, Polli explores another form of political agency: art as communication on climate change that can promote awareness, critique and alternative options to hegemonic positions. Her chapter discusses the implications of different models to manage access to, use of, and, as she argues, ownership of the air. She takes issue with techno-managerial constructs such as emissions markets and trading, or the privatization of the atmosphere. The chapter points out that art may have contributed to the cultural acceptance of the commodification of air and other 'immaterial' resources and then moves on to discuss the work of a number of artists who have created alternative forms of visualization of problems associated to air pollution and fossil fuels. They unsettle understandings of causation, responsibility, and commercialization with some artworks engaging specifically with emissions trading and interactively exposing its flaws. As Mouffe (2007) has argued, art can play a critical role in undermining the program of total social mobilization of capitalism, which permeates climate politics at multiple levels. Polli shows how politically dominant discourses on the atmosphere can be questioned and subverted, and how art can be focal to oppositional struggles and to remaking the political in climate politics. Most artworks referenced in the chapter encourage public participation in the politics of the atmosphere and of climate change, thereby advancing democratic pluralism. Fomenting dissensus and giving voice to those that are silenced by the existing hegemony (Mouffe, 2007), critical artistic practices can help foreground the political – rather than technical – nature of responses to climate change and refund public engagement.

Gunster's chapter turns our attention to alternative media spaces and their specific ways of framing the politics of climate change. News media have been shown to function as the public's main source of information on climate change (e.g. Cabecinhas, Lázaro and Carvalho, 2008; Wilson, 1995). The media produce, reproduce and disseminate multiple discourses on climate change where knowledge, values and power issues come into play, and occupy a central position in the public space of contemporary societies, a battleground where different hegemonic projects are confronted (Mouffe, 2007). Their contribution to the social construction of politics – as well as of the political – warrant detailed analysis. Although a number of studies have focused on the coverage of climate change in mainstream media, alternative media are blatantly under-researched. Looking at two independent Canadian newspapers, Gunster explicitly foregrounds the political dimensions of climate change in his analysis. Whereas in corporate media, news tend to be dominated by narratives of political failure to tackle climate change, Gunster suggests that alternative media often offer more optimistic, even if critical, images and argues that media accounts of success in the development of governmental projects for generation of renewable energy or reduction of greenhouse gas are likely to stimulate the perception that all governments are capable of undertaking effective action and thus promote civic pressure for that to happen. He found a strong emphasis on political rather than technological or lifestyle-related solutions in alternative media, which often involved contrasting actual politics with the politics of the possible, i.e., referring to beneficial measures that *could* be put in place but are being ignored by governments. Another unique characteristic of alternative media when compared to mainstream media is their readiness to challenge dominant paradigms of economic growth. Gunster notes that, unlike their corporate counterparts, they often advance radically different ways of thinking the economy, culture and society so that effective responses to climate change can emerge. Finally, and most importantly, this chapter explores the role of specific practices of mediation of the political for citizen-led politics. In the mainstream media, politics tends to be the exclusive domain of national and international elites, which citizens can only passively observe rather than acting upon. In contrast, independent media construct political activism as effective and desirable. By offering in-depth stories of demonstrations, sit-ins and letter-writing campaigns, and of the political transformation that they brought about, these media modify climate politics from a spectacle to a site of struggle. Depictions of actual practices of citizen engagement can stimulate empathy and function as inspirational exemplars. By showing how citizens are undertaking concrete political initiatives on climate, alternative media demonstrate that changing politics is feasible, and contribute to the normalization of climate activism. In other words, alternative media may be an important agent in the development of agonistic politics on climate change.

In chapter ten, Scandrett, Crowther and McGregor offer a critical analysis of the exclusion of voices – and needs – of large parts of society from climate change politics, as well as of alternatives for including them. They show that struggles to define climate change and energy issues have been dominated by specific social identities as the dominant techno-managerial approach to the issue has been shaped by narrow segments of society with specific values, interests and forms of knowledge. In this chapter, the political in climate politics clearly emerges in connection with issues of class, distribution of power, and social and environmental justice. Scandrett, Crowther and McGregor

discuss the political consequences of excluding the voices and views of the working classes, the rural and urban poor and indigenous communities, providing support to Mouffe's defense of agonistic pluralism. The chapter builds the grounds for a radicalization of democratic politics on climate change with communication being critical to the construction of new forms of knowledge and social relations through popular education initiatives of a dialogical nature as well as to the confrontational politics of direct action, which risk creating new social tensions with the way they challenge dominant structures and powers. The interplay of top-down approaches to public engagement and bottom-up initiatives comes across as often complex and disputed.

The authors of this book examine communication as a key component of social and political dynamics and attempt to demonstrate their interplay through multiple case studies. Citizen groups, from loose 'critical communities' to non-governmental organizations, or even single individuals, such as unaffiliated artists, are vital in the creation of meanings that challenge a given political hegemony. Communicative practices provide the basis for engaging the public, whether through social marketing, public participation, agonistic pluralism, or a combination of all three. The possibilities entailed in that engagement may yet contribute to a transformation of climate change politics that appreciates both the importance of individual political subjects and their communities.

## References

- Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216-224.
- Atton, C. (2004). *An alternative Internet: Radical media, politics and creativity*. Edinburgh: Edinburgh University Press and New York: Columbia University Press.
- Besley, J. C. (2010). Imagining public engagement. *Public Understanding of Science*. Published online before print November 1, 2010, doi: 10.1177/0963662510379792.
- Braun, K., & Schultz, S. (2010). '... a certain amount of engineering involved': Constructing the public in participatory governance arrangements. *Public Understanding of Science*, 19(4), 403-419.
- Brulle, R. J. (2010). From environmental campaigns to advancing the public dialog: Environmental communication for civic engagement. *Environmental Communication: A Journal of Nature and Culture*, 4(1), 82-98.
- Cabecinhas, R., Lázaro, A. & Carvalho, A. (2008). 'Media uses and social representations of climate change' in A. Carvalho (ed.) *Communicating climate change: Discourses, mediations and perceptions* (pp. 170-89). Braga: Centro de Estudos de Comunicação e Sociedade, Universidade do Minho. E-book available at: [http://www.lasics.uminho.pt/ojs/index.php/climate\\_change](http://www.lasics.uminho.pt/ojs/index.php/climate_change)
- Carvalho, A. (2005a). 'Governmentality' of climate change and the public sphere, in E. Rodrigues and H. Machado (org.) *Proceedings of the International Seminar 'Scientific proofs and international justice: the future for scientific standards in global environmental protection and international trade'* (pp. 51-69). Braga: Núcleo de Estudos em Sociologia, Universidade do Minho.



- Carvalho, A. (2005b). Representing the politics of the greenhouse effect: Discursive strategies in the British media', *Critical Discourse Studies*, 2 (1), 1-29.
- Carvalho, A. (2010). Media(ted) discourses and climate change: a focus on political subjectivity and (dis)engagement, *WIREs Climate Change*, 1 (2), 172-179.
- Carvalho, A., & Pereira, E. (2008). Communicating climate change in Portugal: A critical analysis of journalism and beyond, in A. Carvalho (ed.) *Communicating climate change: Discourses, mediations and perceptions* (pp. 126-56). Braga: Centro de Estudos de Comunicação e Sociedade, Universidade do Minho. E-book available at [http://www.lasics.uminho.pt/ojs/index.php/climate\\_change](http://www.lasics.uminho.pt/ojs/index.php/climate_change)
- Coenen, F. (ed.) (2010). *Public participation and better environmental decisions: The promise and limits of participatory processes for the quality of environmentally related decision-making*. Berlin: Springer.
- Corner, A. and A. Randall (2011). Selling climate change? The limitations of social marketing as a strategy for climate change public engagement. *Global Environmental Change*, 21, 1005-1014.
- Crompton, T. (2010). *Common cause: The case for working with cultural values*. WWF-UK, COIN, CPRE FOE, Oxfam, available at [http://www.wwf.org.uk/what\\_we\\_do/campaigning/strategies\\_for\\_change](http://www.wwf.org.uk/what_we_do/campaigning/strategies_for_change)
- Dahlberg, L., & Siapera, E. (eds) (2007). *Radical democracy and the Internet: Exploring theory and practice*. London: Palgrave.
- Dean, M. (1999). *Governmentality*, London: Sage.
- Delgado, A., Kjølberg, K. L., & Wickson, F. (2010). Public engagement coming of age: From theory to practice in STS encounters with nanotechnology. *Public Understanding of Science*. Published online before print May 11, 2010, doi: 10.1177/0963662510363054.
- Dietz, T., & Stern, P. C. (eds.) (2008). *Public participation in environmental assessment and decision making*. Washington: National Academies Press.
- Dryzek, J. (2000). *Deliberative democracy and beyond. Liberals, critics, contestations*. Oxford: Oxford University Press.
- Endres, D., Sprain, L., & Peterson, T.R. (2009). *Social movement to address climate change: Local steps for global action*. Amherst, NY: Cambria Press.
- Fairclough, N. (2003). *Analysing discourse: Textual analysis for social research*. London: Routledge.
- Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon & P. Miller (eds.) *The Foucault effect* (pp. 87-104). Chicago: University of Chicago Press.
- Gastil, J.J., & Levine, P. (eds) (2005). *The deliberative democracy handbook: Strategies for effective civic engagement in the 21st century*. San Francisco: Jossey-Bass.
- Habermas, J. (1989). *The structural transformation of the public sphere*. Cambridge, MA: MIT Press.

- Habermas, J. (1996). *Between facts and norms: Contributions to a discourse theory of law and democracy*. Cambridge, MA: MIT Press.
- House of Lords Select Committee on Science and Technology (2000). *Science and society; Third report of the session 1999-2000*. London: HM Stationery Office.
- Ivie, R. L. (2001). Hierarchies of equality: Positive peace in a democratic idiom. In G. Cheney, S. May, & D. Munshi (eds.), *The handbook on communication ethics* (pp. 374-386). New York: Routledge.
- Ivie, R. L. (2002). Rhetorical deliberation and democratic politics in the here and now. *Rhetoric and Public Affairs*, 5, 277-285.
- Ivie, R. L. (2004). Prologue to democratic dissent in America. *Javnost, The Public: Journal of the European Institute for Communication and Culture*, 11 (2), 19-35.
- Kiehl, J. (2011). Lessons from Earth's past. *Science*, 331, 158-159.
- Kleinman, D., Delborne, J., & Anderson, A. (2011). Engaging citizens: The high cost of citizen participation in high technology. *Public Understanding of Science*, 20(2), 221-240.
- Laclau, E. & Mouffe, C. (1985). *Hegemony and socialist strategy*. London: Verso.
- Lakoff, G. (2010). Why it matters how we frame the environment. *Environmental Communication: A Journal of Nature and Culture*, 4 (1), 70-81.
- Lassen, I., Horsbøl, A., Bonnen, K., & Pedersen, A. G. J. (2011) Climate change discourses and citizen participation: A case study of the discursive construction of citizenship in two public events. *Environmental Communication: A Journal of Nature and Culture*, 5 (4), 411-427.
- Lorenzoni, I., Nicholson-Cole, S., & Whitmarsh, L. (2007). Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change*, 17, 445-59.
- Luke, T. (1995). Sustainable development as a power/knowledge system: The problem of 'governmentality'. In F. Fischer & M. Black (eds.) *Greening environmental policy: The politics of a sustainable future* (pp. 21-32). London: Paul Chapman.
- Methmann, C. P. (2010). 'Climate protection' as empty signifier: A discourse theoretical perspective on climate mainstreaming in world politics. *Millennium - Journal of International Studies*, 39(2), 345-372.
- Moser, S. (2010). Communicating climate change: history, challenges, processes and future directions. *WIREs Climate Change*, 1, 31-53.
- Moser, S.C., & Dilling, L. (eds.) (2007). *Creating a climate for change: Communicating climate change and facilitating social change*. Cambridge, UK: Cambridge University Press.
- Mouffe, C. (1993/ 2005). *The return of the political*. London: Verso.
- Mouffe, C. (2000). *The democratic paradox*. London: Verso.

- Mouffe, C. (2005). *On the political*. London: Routledge.
- Mouffe, C. (2007). Artistic activism and agonistic spaces. *Art & Research: A Journal of Ideas, Contexts and Methods*, 1 (2), 6 p. Available at: <http://www.artandresearch.org.uk/v1n2/mouffe.html>. Accessed 12 September 2011.
- Nisbet, M. C. (2009). Communicating climate change: Why frames matter to public engagement. *Environment*, 51, 514-518.
- 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.
- O'Neill, S., & Nicholson-Cole, S. (2009). 'Fear won't do it': Promoting positive engagement with climate change through visual and iconic representations. *Science Communication*, 30(3), 355-379.
- Paterson, M., & Strippel, J. (2010). My Space: governing individuals' carbon emissions. *Environment and Planning D: Society and Space*, 28(2), 341-362.
- Peterson, M. N., Peterson, M. J., & Peterson, T. R. (2005). Conservation and the myth of consensus. *Conservation Biology*, 19 (3), 762-767.
- Peterson, M. N., Peterson, M. J., & Peterson, T. R. (2006). Why conservation needs dissent. *Conservation Biology*, 20, 576-578.
- Peterson, T. R. (1997). *Sharing the Earth: The rhetoric of sustainable development*. Columbia, SC: University of South Carolina Press.
- Peterson, T. R., Peterson, M. N., Peterson, M. J., Allison, S. A., & Gore, D. (2006). To play the fool: can environmental conservation and democracy survive social capital? *Communication and Critical/Cultural Studies*, 3 (2), 116-140.
- Phillips, L. (2011). *The promise of dialogue: The dialogic turn in the production and communication of knowledge*. Amsterdam: John Benjamins Publishing.
- Rancière, J. (2006). *Hatred of democracy*. London: Verso.
- Rawls, J. (1993). *Political liberalism*. New York: Columbia University Press.
- Rose, N S. (1999). *Powers of freedom: Reframing political thought*. Cambridge: Cambridge University Press.
- Slocum, R. (2004). Polar bears and energy-efficient lightbulbs: strategies to bring climate change home. *Environment and Planning D: Society and Space*, 22(3), 413-438.
- Shakhova, N., Semiletov, I., Salyuk, A., Yusupov, V., Kosmach, D., & Gustafsson, O. (2010). Extensive methane venting to the atmosphere from sediments of the East Siberian arctic shelf. *Science*, 327, 1246-1250.
- Swyngedouw, E. (2010). Apocalypse forever? Post-political populism and the spectre of climate change. *Theory, Culture & Society*, 27 (2-3), 213-232.

- Toker, C. W. (2005). The deliberative ideal and co-optation in the Georgia Port Authority's stakeholder evaluation group. *Environmental Communication Yearbook*, 2, 19-48.
- Torgerson, D. (1995). The uncertain quest for sustainability: public discourse and the politics of environmentalism. In F. Fischer & M. Black (eds.) *Greening environmental policy: The politics of a sustainable future* (pp. 3-20). London: Paul Chapman.
- UNEP/Futerra (2005). *Communicating sustainability: How to produce effective public campaigns*. Paris: UNEP.
- Vermeer, M., & Rahmstorf, S. (2009). Global sea level linked to global temperature. *PNAS (Proceedings of the National Academy of Sciences of the United States)* Published online before print December 7, 2009: 1-6.
- Whitmarsh, L., O'Neill, S., & Lorenzoni, I. (eds.) (2010). *Engaging the public with climate change: Behaviour change and communication*. London: Earthscan.
- Wilson, K. (1995) Mass media as sources of global warming knowledge. *Mass Communication Review*, 22 (1-2), 75-89.
- Wodak, R. (2011). *The discourse of politics in action: Politics as usual*. Basingstoke: Palgrave.
- World Wide Views on Global Warming (n/d). Retrieved July 19, 2011 from <http://www.wwviews.org/node/6>
- Yale Project on Climate Change and the George Mason University Center for Climate Change Communication (2009). Climate change in the American mind: American's climate change beliefs, attitudes, policy preferences, and actions. Retrieved 29 March 2009 from [http://www.climatechangecommunication.org/images/files/Climate\\_Change\\_in\\_the\\_American\\_Mind.pdf](http://www.climatechangecommunication.org/images/files/Climate_Change_in_the_American_Mind.pdf)
- Žižek, S. (1999). *The ticklish subject – The absent centre of political ontology*. London: Verso.

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<sup>1</sup> As Mouffe (2000: 101) notes, “[p]olitics” (...) indicates the ensemble of practices, discourses and institutions which seek to establish a certain order and organize human coexistence in conditions that are always potentially conflictual because they are affected by the dimension of “the political”.

<sup>2</sup> Habermas (1989) has of course also made fundamental contributions to understanding the systematic distortion of the public sphere by the media and how that constrains people's participation in public life.

<sup>3</sup> An increase of the global mean temperature by 2°C until 2100.