

## **A tough social challenge and a diabolical policy challenge**

There is substantial evidence that a low carbon future is technically and economically feasible. Significant cuts in global emissions can be achieved even with current technologies. For example, Greenpeace International's *Global Energy [R]evolution* charts a blueprint for the world's renewable energy future that would limit global mean temperature rises to 2 degrees or less, using only proven technologies (Greenpeace International and EREC 2010). In Australia, the University of Melbourne and Beyond Zero Emissions have published a ten-year plan for transitioning Australia's stationary energy sector to 100 percent renewable energy supply, using technologies that are commercially available now (Wright and Hearps 2010). High profile economic studies such as the *Stern Review* in the UK (Stern 2006) and the *Garnaut Review* in Australia (Garnaut 2008) conclude that the economic benefits of strong, early action on climate change considerably outweigh the costs.

So why do many nations, including Australia, continue to delay strong action on climate change, and why were the Copenhagen climate talks in 2009 widely criticised as a failure? Whilst technical and economic challenges remain an issue, we believe the 'messier' challenges of social and political engagement are the core of the problem.

Climate change is a complex social challenge. Social change theorist Adam Kahane believes that "climate change epitomises, in the extreme, everything we know about tough social challenges". He describes tough social challenges in the following way:

*A challenge is tough when it is complex in three ways. A challenge is dynamically complex when cause and effect are interdependent and far away in space and time; such challenges cannot successfully be addressed piece by piece, but only by seeing the system as a whole. A challenge is socially complex when the actors involved have different perspectives and interests; such challenges cannot be successfully addressed by experts or authorities, but only with the engagement of the actors themselves. And a challenge is generatively complex when its future is fundamentally unfamiliar and undetermined; such challenges cannot be successfully addressed by applying 'best practice' solutions from the past but only by growing new 'next practice' solutions.*  
(Kahane 2010)

Whilst climate change is a tough social challenge, it is arguably an even tougher policy challenge. Ross Garnaut refers to climate change as a 'diabolical policy challenge', because a solution is beyond the will of any single nation and requires international cooperation of unprecedented dimension and complexity. He likens the situation to the classic 'prisoners' dilemma' in game theory: each country is better off from a national point of view if they do less of the mitigation and others do more, but if all countries act on this basis, there will be no resolution to the problem (Garnaut 2008).

It is clear that any resolution of the problem will require unprecedented levels of political will and community engagement. In contemporary western democracies, political will is typically influenced by perceptions of what voters want. However the experience of the 2009 Copenhagen climate talks would suggest that governments are not listening to civil society, and that governance mechanisms are failing to ensure the effective participation of citizens (Kent 2010). This raises fundamental questions about the future of climate governance.

### **Copenhagen 2009: a diabolical policy failure**

In December 2009, the United Nations Climate Change Conference<sup>1</sup> was held in Copenhagen. Its purpose was to seek a binding international agreement in response to climate change. In attendance were 120 Heads of State supported by numerous ministers and bureaucrats, constituting the “highest concentration of robust decision-making power the world had seen” (Dimitrov 2010). Public expectations were high, with opinion polling around the world indicating that a clear majority of people see climate change as a serious problem that requires action (e.g. Pew Research Center 2009, The World Bank 2009). Whilst the outside world expected a global climate treaty to be produced, the result was “a failure whose magnitude exceeded our worst fears” (Dimitrov 2010). The Copenhagen Accord that emerged is not legally binding on nation-states and the pledges it contains are not sufficient to prevent temperature rise above 2°C (Dimitrov 2010, OECD 2010). In short, Copenhagen demonstrated a ‘diabolical policy challenge’ in action.

The global governance of climate change is largely conducted under the auspices of the United Nations Framework Convention on Climate Change<sup>2</sup> (UNFCCC) which includes the Kyoto Protocol and more recently the Copenhagen Accord<sup>3</sup>. The Convention, Protocol and Accord are principally agreements (The Kyoto Protocol is the only legally binding instrument) amongst nation-states. Whilst the United Nations formally recognizes civil society as valuable actors in environmental decision making, (Principle 10 of the Rio Declaration states that “environmental issues are best handled with the participation of all concerned citizens”) in effect the participation of citizens beyond the purview of the nation-state is limited. Civil society participation may be encouraged in theory but in practice there is a range of practical and structural limitations to ensuring that “all concerned citizens” (United Nations 1992) can engage discursively with the formal United Nations negotiations on climate change or even in ways that citizens can ensure that their individual or national interests are represented (Saward 2008). Fisher (2010), for example, notes how the UNFCCC negotiations in Copenhagen attracted unprecedented interest from civil society as they were expected to generate the next international climate change agreement (p. 12). This continues the trend towards an exponential rise in accredited NGO observers in the annual Conference of the Parties (COP) meetings held under the

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<sup>1</sup> Six concurrent meetings were held in Copenhagen under the auspices of the UNFCCC: the Conference of the Parties (COP) 15 to the UNFCCC; Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP/MOP 5); 31<sup>st</sup> session of the Subsidiary Body for Scientific and Technical Advice (SBSTA 31) and Subsidiary Body for Implementation (SBI 31); Ad Hoc Working Group on Further Commitments for Annex 1 parties under the Kyoto Protocol (AWG-KP 10); and the Ad Hoc Working Group on Long-term Co-operative Action under the UNFCCC (AWG-LCA 8)

<sup>2</sup> See UNFCCC (<http://unfccc.int/2860.php>)

<sup>3</sup> The Conference of the Parties in Copenhagen (COP15), ‘took note’ of the Copenhagen Accord on 18th December 2009 (<http://unfccc.int/home/items/5262.php>, accessed 19<sup>th</sup> September 2010)

UNFCCC, cumulating in Copenhagen where for the first time “more than two-thirds of those registered (20, 611 individuals) were NGO observers” (Fisher 2010: 12).

Participation of civil society in climate governance however is not only a matter of ensuring sufficient numbers but also in the equitable representation of diverse global interests including the disenfranchised and the disengaged (Karpowitz et al. 2009), as well as an assurance that these voices will be heard and influential. This perhaps represents the greater challenge: how to ensure democratic and transparent engagement in global climate governance.

The final days of the Copenhagen climate talks and in particular the final negotiation of the Copenhagen Accord where the majority of civil society observers were ‘locked out’ of the conference venue, generated a high degree of criticism. As a result, Climate Action Network-International which represents a coalition of 500 environment and development NGOs called on the COP President to ensure better engagement of civil society in future negotiations. The President of Bolivia, one of the six dissenting nations to the Copenhagen Accord (Houser 2010), established the World People’s Conference on Climate Change and the Rights of Mother Earth (held in Cochabamba in April 2010) with a view to challenging the dominant ecological modernisation discourse under the UNFCCC and proposing an alternative grassroots and indigenous-focussed “green radicalism” (Stevenson and Dryzek 2010). These examples highlight that citizen engagement in the global governance of climate change needs to overcome not only the significant privileging of participation within the current climate change regime (Kent 2010) but also involve a broader range of audiences and deliberation mechanisms to ensure that differing perspectives and worldviews are heard.

With such a view, in the lead up to Copenhagen, the Danish Government initiated the first ever deliberative, democratic process at a global scale, designed to ensure the voices of global citizens would be represented in the negotiations. Approximately 4,000 citizens across 38 countries, chosen to reflect the demographic diversity in their respective countries and regions, participated in *World Wide Views on Global Warming (WWViews)*<sup>4</sup>. Each country followed the same basic process, deliberated on the same questions and voted on the same possible responses. Organisers collated and reported on the responses using a standard method (Riedy and Herriman 2010). The outcomes indicated that 91% of global participants felt it was urgent to make a global climate deal, and 89% wanted to see emissions reductions of 25-40% or more by 2020 (Danish Board of Technology 2009).

*The citizens want a deal to be made at COP15, and not later. They call for long-term global average temperature targets of less than 2 degrees Celsius above pre-industrial levels. They follow that up with a wish for higher reduction targets than their politicians are stating in the lead-up to COP15 (Danish Board of Technology 2009)*

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<sup>4</sup> See <http://www.wwviews.org/>

WWViews revealed a citizen consensus across 38 nations representing both the developed and developing world for a bolder political agenda for climate change mitigation, one that their political representatives were unable or unwilling to take forward. The experience of Copenhagen thus begs the question: with better mechanisms for civil society participation in climate governance at both the national and global levels, could outcomes have been better?

### **The case for better civil society participation in climate governance**

The principle of public participation in the international governing of global environmental issues is incorporated in the United Nations Framework Convention on Climate Change through Article 6 on Education, Training and Public Awareness which calls on member parties to ensure public participation in climate governance at the national, regional and sub-regional levels (United Nations, 1992). Yet, the dissonance between the hopes of the people and the political outcomes delivered at Copenhagen raises fundamental questions about the nature and extent of civil society participation in global climate governance as ‘authentic, inclusive and consequential’ (Dryzek 2009: 1382). Dryzek defines the deliberative democratic potential of political processes through these three elements of “deliberative capacity”. They offer a useful framework to determine the extent to which current participation in global climate change governance can be considered democratic and how notions of citizen participation may be extended. ‘Authenticity’ requires that participation be noncoercive and that citizens engage self-reflectively in a process where individual and group ideas and interests can be related to more universal principles (p. 1381). Participants should be able to accept and acknowledge others arguments. ‘Inclusiveness’ implies that “the range of interests and discourses present in a political setting” (p. 1382) are able to be discussed and heard. ‘Consequential’ means that the participatory process results in some collective decision or outcome which may aim to influence policy direction (p. 1382).

Citizen participation as a fundamental mechanism of democratic governance (Lindskog and Elander 2010) therefore provides the means to offset powerful elites and dominant discourses spun by sub-political entities that sit beyond democratic control (Beck 1992). Greater citizen participation can broaden representative claims where existing forms of representative democracy may exclude “the range of potential interests and identities” (Saward 2008: 1003). According to Saward (2008) the democratic potential of broader and more varied forms of participation in decision-making have not yet been fully realised, providing scope for the generation of alternative forms of citizen engagement beyond the current mechanisms at play.

*Political citizenship needs to be unshackled as an idea, to encompass the latent potential of citizen self-representation and participation across multiple sites in an open society (p. 1011).*

Where public participation is incorporated as a routine component of policy development and other forms of political decision-making, there are obviously benefits to the state in terms of developing legitimacy for their programs (Scheer and Höppner 2010) but beyond this, citizen engagement can generate a type of social learning as people are “schooled” in democracy (Hendriks 2006), not only on an individual level but also as they engage with

others. So participation is also associated with a generative notion of power ('power-with') that comes from association with others and sharing something together (Hendricks 2009: 178).

In summary there are compelling grounds to examine avenues for public participation in the global governance of climate change that extend the current practice. Currently, however, there are significant challenges to achieving citizen participation in environmental decision-making that creates higher order outcomes in terms of democratic deliberation and the transformational potential for citizens as skilled, empowered and reflexive proponents for a safe climate. The following section explores why such potential in public participation may fail to be realised.

### **Constraints to civil society participation in climate governance**

To provide a context for challenges to civil society participation in climate governance, the underlying issue of decline in civic engagement needs to be examined. Decline in civic engagement remains a fundamental problem for contemporary democracy (Dahlgren 2009). Since the 1960s there has been continuing decline in citizen engagement and participation in democratic politics in its traditional forms, fuelled by declining citizen knowledge and interest in politics and declining trust in government. There are fears that this will worsen, leading to a lack of support for and legitimacy of democratic governments (Macnamara 2008).

The phenomenon of rising levels of citizen distrust in both political institutions and political actors within contemporary western democracies is now well documented. Evidence from both politico-economic (Nye et al. 1997; Hetherington 1998; Saward 2008) and psycho-social (Blake 1999; Lorenzoni et al 2007; Höppner & Whitmarsh 2010) research suggests that political distrust is not only an individual attribute but has been adopted as a social and cultural norm. Mansbridge (1997) describes the social and cultural conditions leading to increased political distrust as encompassing:

*uprising in cynicism, a decrease in interpersonal trust, a decrease in optimism, increasing negative coverage of government in the media, greater publicity regarding corruption, and the major social fissures that began in the 1960s (pp. 148-9)*

In this way political distrust presents as systemic and endemic to the modern social condition and according to Schyns and Koop (2010) leads to a lessening in social capital which is widely considered as essential to the effective and efficient functioning of modern societies (p. 151).

Likewise, declining political trust has significant implications for democracy as it can lead into a cycle of further political and democratic dysfunction as "without public support for solutions, problems will linger, will become more acute, and if not resolved will provide the foundations for renewed discontent" (Hetherington 1998: 804).

Underlying this disengagement is a perceived lack of agency:

*People increasingly do not feel inspired by what the politicians propose that society collectively could and should be. Likewise, citizens do not embody a sense of popular efficacy that they can, via democracy's institutions and mechanisms, impact on societal development (Dahlgren 2009)*

Disempowerment, distrust and lack of reflexivity constrain individual agency on environmental problem-solving (Kent 2009). All are potentially potent inhibitors of political engagement that must be overcome to extend the potential of citizen participation in climate change governance.

### **Deliberation, climate governance and social transformation**

As well as a tendency to produce decisions that better reflect public interest (in this case, decisive action on climate change), deliberative democracy can play an important role in overcoming the constraints described above. It can help to restore agency and renew citizen engagement with the political process (Hendriks 2009). Well-conceived deliberative processes have the potential to lend authority to citizen voices, restore trust in the ability of government to represent its people, and instil reflexivity as a common social practice (Hendricks 2006, Scheer and Höppner 2010).

At the outset of the *World Wide Views on Global Warming* deliberations, only 28% of the global participants said they “knew a lot” about climate change. One of the findings of the process was that the more people learn about and consider climate change issues, the tougher they want climate change policies to be (Danish Board of Technology 2009). This is consistent with evidence from other deliberative processes with ordinary citizens on environmental issues, which are known to induce a ‘green shift’ (Niemeyer 2004, Dryzek and Stevenson 2010).

*Discourse is essential to the basic human yearning for social recognition and identity and the related desire for a sense of agency. Essential to the facilitation of empowerment.. is the creation of institutional and intellectual conditions that help people pose questions in their own ordinary or everyday language and decide the issues important to them (Fischer 2009)*

Crucially, the deliberative process must be ‘consequential’ (Dryzek 2010) by influencing the power structures able to enact the required changes, or else risk being tokenistic, “providing little more than cathartic experiences for citizens” (Macnamara 2008). The latter can quickly result in disengagement.

The focus to date has arguably been on the *outputs* of the deliberative process – the tendency to produce well-considered, more legitimate decisions that take diverse perspectives and interests into account. This is a crucial tenet of good governance. However, the potentially transformative effect of the deliberative *process* on participants, could be utilised more to help ordinary people to realise their potential as empowered citizens, better understand

and engage with complex problems like climate change, and become part of the solution. These things are crucial to resolving the tough social challenge of climate change.

It is well documented that deliberative processes can deliver a number of positive consequences for participants including “improved knowledge and political efficacy, improved skills in discussing and justifying choices, and a more generalised sense of the collective good” (Dahlgren 2009). These changes essentially promote “understanding and practical rationality” in politics (ibid). However, there is a dimension beyond practical rationality. Deliberative processes have the potential to create deeper transformations in participants, by encouraging critical examination of both individual and shared values and belief systems in the context of the larger social framework of which they are part. This is the practice of reflexivity and has considerable alignment with the concept of transformative learning, which emphasises critical awareness of tacit assumptions and their relevance for making an interpretation (Fischer 2009).

Transformative learning can be described as:

*the process by which people examine problematic frames of reference to make them more inclusive, discriminating, open, reflective and emotionally open to change. It can be provoked by a single event – a disorienting dilemma – or it can take place gradually and cumulatively over time. Discourse is central to the process (Cranton 2006)*

Transformative learning typically relies on discourse, critical reflection and action. Not all deliberative processes will necessarily induce transformative learning, however many characteristics of deliberative processes appear conducive. For a start, bringing people with very different perspectives and worldviews together to explore a complex issue provides the right sort of conditions for a ‘disorienting dilemma’ to occur.

The goal of discourse and critical reflection is to explore the problematic situation in the context of the broader social framework, recognising “the constructed nature of what we take for granted” (Fisher 2009). Processes that encourage a deeper form of self-reflection, by focusing on the ‘tacit’ level that usually goes unnoticed, can be transformative. Through such processes “participants develop their reflective capacities to identify and interpret different, often competing, perspectives from alternative theoretical points of view” (ibid), leading to new perspectives and even worldviews. “The result is a new story better capable of explaining the problematic situation, how it came to be and what to do about it” (ibid).

Transformative learning includes action – ‘learning by doing’. In the context of deliberation, participants are gaining practice in citizen skills (Hendriks 2006), which is “at the heart of learning democracy” (Fischer 2009). At the outset of a deliberative process, it is typical for citizens to believe that they are not expert enough to deal with the relevant policy issues. However, based on the experience participants report that they become more motivated citizens and

often begin to engage in other civic forums. As Fischer explains, “their sense of themselves as actors and learners changed. That is, through the experience of deliberation, they engaged in a process of transformative learning” (ibid).

*People find their way forward not because they necessarily have a good strategy or map, but because they “begin to act, they generate tangible outcomes in some context, and this helps them discover what is occurring, what needs to be explained, and what should be done next” (Kahane 2010, citing Karl Weick)*

### **The role of emotion in transformative deliberation**

There is some debate between advocates of deliberative processes as to the role of rationality versus emotion in deliberation, and this debate is also evident in transformative learning. Some “put a strong emphasis on rationality and formal reason, but ignore or even explicitly disparage anything that smacks of the affective” (Dahlgren 2009). Rationality is obviously core to deliberative processes, but transformative outcomes may be enhanced allowing for expression of emotion, for example via narrative. One group of theorists argues that emotions are suffused with a form of tacit intelligence. As such, emotions function as a deep source of human awareness, critical judgement and social understanding (Fischer 2009, citing Nussbaum 2001).

John Dryzek from the *Centre for Deliberative Democracy and Global Governance* is a strong advocate for emotion in deliberation. He describes deliberation as a non-coercive, reflective and pluralistic process, allowing “argument, rhetoric, humour, emotion, testimony or storytelling, and gossip” (Dryzek 2000:1). Lorenzoni et al. (2007) note that emotion is key to engaging people on the issue of climate change and inspiring them to act:

*In developing sustainable solutions to climate change, enabling long-term changes in individual attitudes and lifestyles is as crucial as public involvement in the democratic process. The term “engagement” ... is taken to mean a personal state of connection with the issue of climate change, in contrast to engagement solely as a process of public participation in policy making.*

*A state of engagement is understood here as concurrently comprising cognitive, affective and behavioural aspects. In other words it is not enough for people to know about climate change in order to be engaged; they also need to care about it, be motivated and able to take action (Lorenzoni et al. 2007: 446)*

It is interesting to note that the etymology of ‘apathy’ is ‘without emotion’, suggesting the engagement that drives civic agency must have an affective drive (Dahlgren 2009). This does not mean one becomes incapable of rational discussion or loses the capacity for compromise, and touches on the collective dimension of the affective: “passion not only motivates, it links people together” (ibid). Others agree, suggesting acknowledgement of emotion in deliberation makes space for empathy. Empathy facilitates social trust, which is basic for building the kind of social capital that allows communities to work together effectively (Fischer 2009, citing Bohart and Greenberg 1997)



## Power to the people: mainstreaming climate governance

*If the highest-level leaders cannot settle differences, who can? ( COP15 delegate, Dimitrov 2010)*

If participation in genuine deliberative democratic processes has the potential to fundamentally transform the way people think and act, which is crucial to resolving the tough social challenge of climate change, this is surely an argument for extending the scope of participation. To date, most deliberative processes have been limited in their scope and influence, expensive to run and often tailored to elites (Macnamara 2008, Dahlgren 2009, Karpowitz et al. 2009). Perhaps it is time for new forms of deliberation that can ‘mainstream’ climate governance by engaging a larger proportion of the populace.

*One of the imperative needs of democratic countries is to improve citizen’s capacities to engage intelligently in political life.. I don’t mean to suggest that the institutions of civic education should be abandoned. But I do believe that in the years to come these older institutions will need to be enhanced by new means for civic education, political participation, information and deliberation that draw creatively on the array of techniques and technologies available in the twenty-first century. (Dahlgren 2009, quoting Dahl 1998)*

Mainstream public participation in deliberative processes requires a wider notion of the ‘public sphere’ – the discursive space in which citizens debate matters of mutual interest. In large-scale, differentiated late-modern societies the public sphere is not singular but constitutes many different spaces. The advent of cyberspace and new information communication technologies has led to profound shifts in its nature, ‘extending and pluralising’ the public sphere in a number of ways (Dahlgren 2005).

Much has been said about the potential of the internet as an efficacious tool for harnessing collective intelligence and encouraging dialogue, and the importance the internet’s network character for democratic participation (e.g. Macnamara 2008, Dahlgren 2009, Klein 2006). With broadband becoming increasingly available and the advent of Web 2.0 and the emergent Web 3.0, the ‘expanded’ multimedia net has become a permanent utility in everyday life. It offers an enhanced environment for collective creation and sharing of information and culture, opening up cyberspace for civic activity (Dahlgren 2009).

However, some theorists suggest a “mixed picture of the transformative potential of new media” (Mansell 2009) and others are sceptical of the potential of the internet to facilitate democratic participation, suggesting that technology alone is unlikely to mobilise people who lack prior interest in politics and “the evidence that a new political engagement is engendered by access to the internet is insubstantial” (Gibson et al. 2008).

*One of the more persistent myths throughout the development of communication technology is that it would transform politics as we know it by bringing power closer to the people (Mosco 2004)*

However, the context for this debate is continually shifting given rapid advances in technology and growing uptake of the internet for political communication and social networking. Its ability to extend democratic participation still remains a potential.

*Cyberspace is altering how we live, providing us with very efficacious tools for social agency... At present we cannot predict how these issues around the democratic character of cyberspace will unfold (Dahlgren 2009)*

### **The scope for online deliberation**

Online forms of deliberative democracy could offer significant potential for climate governance and social change, due to the capacity to engage vast numbers of people at low cost. However there are a number of questions that need to be further explored. The viability of attracting large numbers of citizens who want to participate in meaningful deliberation remains a significant question. Some are critical of the prospect:

*Clearly there is not much chance that a vast majority of people of a Western liberal democracy will become 'active citizens', or even well informed citizens. (Dahlgren 2009)*

However, use of new media is perhaps the best chance we have, as to engage ordinary citizens requires re-thinking the location and language of political discourse. As Macnamara suggests, perhaps it is time to abandon the political elite view of the public sphere and locate it where it's more accessible and relevant:

*Rather than lament these changes and see them as a descent into popular culture and a loss of the rational-critical perspective, embracing the resurgence of interest in civic life and politics manifested in emergent media could see a viable public sphere finally become realised in post industrial democracies. (Macnamara 2008)*

This is particularly important when attempting to attract and sustain the participation of people who are not 'the usual suspects' in civic engagement.

*There is a structural and necessary relation between the popularisation of culture and the democratisation of politics (Simons 2003)*

There have been many questions raised about what an online public sphere means for the nature of participation. Despite apparent growth in online civic engagement, it has been suggested that online environments attract the same people who are already politically engaged and can entrench perspectives via 'digital enclaves' of like-minded people (Macnamara 2008). There is also potential for the 'digital divide' to produce inequalities of access that manifest themselves in terms of 'age, class, gender, ethnicity and geography' (Dahlgren 2009).

The commercialisation of the internet raises questions about its authenticity as a communicative civic space. Linked to this is the risk of vested interests ‘hijacking’ discussion, and issues of government control (Dahlgren 2009).

A crucial question is whether online deliberation has the capacity to deliver transformative outcomes. We cannot assume that the transformative potential known to be associated with face-to-face deliberation will necessarily translate to online environments, and this is an important area for further empirical research. However, the pop-culture nature of new media provides significant scope to creatively incorporate elements shown to induce transformative outcomes, such as narrative and emotion. The language of popular culture has ‘undeniable base relevance’ for political life, in terms of identity construction, ideology and norms, ‘aiding society to work through important contemporary ideas and issues’ (ibid).

*Popular culture offers images and symbols that express and evoke emotion, that we use not least in shaping our individual and collective identities; our sense of who we are, what is right; important and so forth. These can certainly be pertinent for how politics operates and what political views emerge (Dahlgren 2009)*

The prospect of widespread internet use for political discourse raises concerns about ‘noise’ and the internet’s ability to host meaningful deliberation. Most studies aiming to ascertain whether or not online discussions follow the basic ‘Habermasian principles’ of rational argument arrive at negative findings (ibid). If larger numbers of people move to political discussion online, this situation could become even more disorienting. This problem has led to the development of ‘sense-making’ tools, web-based technology designed specifically to assist collaborative decision-making and cooperative problem solving.

One example is the Massachusetts Institute of Technology’s *Climate Collaboratorium*, later renamed the *Deliberatorium*. Its purpose is to enable “effective large-scale deliberation around complex and controversial issues such as climate change” (Klein 2006). Its creators identified a number of problems associated with ‘traditional’ online knowledge sharing (via blogs, wikis etc). These included scattered content, repetition, enclaves, a low ‘signal to noise ratio’, the drowning out of ‘small voices’, and the ability for discussion to be overtaken by controversial topics. This led to the development of an ‘argument mapping’ approach which uses a tree structure to categorise and map issues, related ideas, and related pros and cons (ibid). This ensures a bias towards rational argument. More recent comments by Mark Klein, one the creators, on his blog indicate that whilst the strength of the *Deliberatorium* is the ability to tap the skills and knowledge of large numbers of people to solve complex problems, its weakness is that the style of interaction can seem formal and artificial to users<sup>5</sup>. The future goal is to incorporate narrative and conversation using social media.

As for face-to-face processes, an important issue remains the ability for online deliberation to be ‘consequential’. The outcomes of the deliberative process need to feed into the appropriate decision making structures able to enact

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<sup>5</sup> <http://cci.mit.edu/klein/>, accessed 15<sup>th</sup> August 2010.

change, or they risk resulting in further disengagement. Currently, the internet public sphere is a 'weak' one that generally exerts influence over decision makers through public opinion. However the internet may become a 'strong' public sphere when it is "able to exercise influence through institutionalized decision procedures with regularized opportunities for input" (Bohman 2007).

It is perhaps easiest to imagine how deliberative democracy online could be applied to national climate governance. Deliberative democracy as a form of global governance is more complicated for a number of reasons, including the weakness of accountability mechanisms at this level, the significant digital divide between developed and developing nations, and the need to deal with different cultures, languages and democratic norms (Dimitrov 2010, Dahlgren 2009, Riedy and Herriman 2010). Whilst some experts believe a global public sphere online is "not on the horizon" (Dahlgren 2009), others point to the similarities between the distributed nature of the global public sphere and the distributed character of the internet (a 'network of networks') as warranting further exploration (Bohman 2007).

Global climate deliberation could draw on the 'nested and collaborative' approach used by the European Union for policy coordination and described by Bohman as a potential model for global governance (ibid). Linked deliberations in each nation use a shared framework of goals and benchmarks to structure deliberation. Importantly, interaction across sites is promoted so that "solutions to problems generated by other deliberators can provide alternatives or can be used as premises for the deliberations of others" (ibid). At all levels citizens can introduce concerns and issues based on local knowledge and problems. This is particularly important given evidence that people are more likely to relate to and act on climate change if it is shown to be a tangible local issue, rather than an abstract global issue (CRED 2009). This EU model is semi-public rather than aimed at ordinary citizens, but provides a useful conceptual basis for considering forms of online global governance.

## **Conclusion & Future research**

Deliberative democracy has an important role to play in the future of climate governance for a number of reasons. Deliberative processes have a tendency to produce decisions geared towards the public interest, and are known to induce 'green shifts' in public policy. They also have the potential to transform the way participants think and act, which can have far-reaching and long-term consequences for action on climate change. For these reasons, particularly the latter, we argue that deliberative processes should be mainstreamed within climate change governance.

As a 'tough social challenge' (Kahane 2010) climate change needs system-wide and holistic solutions which can only be achieved with the wide-scale participation of all citizens (not just experts and authorities). Deliberative processes tend towards a systems view by incorporating a diverse range of perspectives, have potential to overcome current barriers to civil society participation in climate governance, and most importantly help to induce personal transformations that can trigger social change. The effects of large-scale, mainstream participation in deliberative climate governance could potentially be profound.

The internet provides an efficacious mechanism for engaging large numbers of people in deliberation and the potential for online deliberation is an important area for further research. Key questions that arise include how to overcome increasing citizen scepticism and political distrust in order to engage and sustain the participation of 'ordinary citizens'; how to ensure online deliberation is truly democratic, that is, 'authentic, inclusive and consequential' (Dryzek 2010); and whether the transformative outcomes associated with face-to-face deliberation adequately translate to an online environment.

Further key questions include whether the concept of deliberative democracy online could be extended from the national to the global public sphere, and whether it could indeed play a meaningful role in global climate governance. Whilst there are many challenges, the parallels between the distributed nature of the global public sphere and the distributed character of the internet deserve further investigation.

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