

“How cavemen did social media”

**A comparative case study of social movement
organisations using Twitter to mobilise on climate
change**

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Abstract

In the face of widespread public disillusionment with traditional politics the internet is emerging as a popular tool for increasing public participation in social and political activism. Little research has been performed, however, on how social movement organisations are using the internet and in particular increasingly popular social networking services to mobilise individuals. Accordingly, this thesis presents a comparative case study of three climate change campaigns' Twitter accounts aiming to identify and analyse the ways they are using it as part of their mobilisation efforts. Use of Twitter varied across all three, reflecting campaign design. However, each case displayed efforts to establish and use online ties and networks to facilitate and sustain participation in low-risk, moderate and symbolic forms of online and offline action. Such findings will provide inspiration for movement activists seeking to use the internet to mobilise on climate change, and open up to greater academic attention the role of social networking services in movement mobilisation.

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Chapter 1 – Introduction

Political disillusionment is a common phenomenon in advanced industrial democracies (Keane 2009). Disenfranchisement with traditional politics and the ability of ordinary citizens to affect change through these institutions has seen membership rates of political parties as well as voter turnout at national elections fall steadily (Dalton & Wattenberg 2002).

Nowhere is this more evident than the issue of climate change. A 2009 World Bank report showed that majorities in 15 countries surveyed agreed that their governments had a responsibility to act on climate change with or without international treaties and they as individuals were willing to bear the economic costs of such action themselves (*Public attitudes toward climate change: findings from a multi-country poll* 2010). Scientific consensus over the anthropogenic influence on global warming, though not unanimous, is significant, especially amongst climate scientists (Doran & Kendall Zimmerman 2009; Oreskes 2004). However, sceptics in politics and business are vocal and world-leaders continue to dither preferring to wait until countries with high emissions act first. International forums like the recent United Nations Copenhagen Summit in December 2009 produce little effective or binding international agreements.

The environmental movement has long aimed to change lifestyles and values as a way of challenging dominant social, political and economic power structures in order to realise a more environmentally sustainable society. What makes climate change so interesting sociologically, though, is that efforts to address it require widespread social, economic and political changes. As such, significant political action is needed to bind all levels of society to

efforts to cut carbon emissions. As climate change increasingly becomes a more mainstream issue environmental and climate change movement organisations face new challenges and opportunities around national and global mobilisation. Through the widespread change of lifestyles and values public opinion is galvanised in order to put pressure on governments for adequate climate policy.

Many have touted the internet and computer-mediated communication as a means of reinvigorating political and civic participation amongst the public. Over the last few years a wave of websites and internet-based applications which enable greater user interactivity, contribution, and communication – collectively labelled Web 2.0 – has provided similar hope that the internet can engage individuals in politics and civic life once more. Optimism regarding the potential of the internet is tempered at the same time by the persistence of a digital divide. This occurs globally between developing and developed countries, related to technological access and income level (Billon et al. 2010; Robison & Krenshaw 2010), and nationally, with regards to the relevant information technology skills which can split developed countries along lines such as race and gender (Jackson et al. 2008).

Social media is media which has arisen from Web 2.0 developments and is constructed socially over the internet and computer-mediated communication. An important aspect and driving force of social media has been the boom in popularity of content-sharing websites such as Youtube and Flickr and social networking services (SNS) like Facebook and the microblogging SNS Twitter. This popularity, in turn, suggests an increased level of connection and communication between spatially and socially diverse individuals and groups and the possibility that this can be harnessed for social and political ends (Papacharissis 2009b).

However, much of the academic attention on the democratic potential of the internet and social media has focused on traditional politics and institutions such as elections, political parties and politicians (see particularly, for their work on ‘web sphere analysis’ and US politics, Schneider & Foot 2002, 2004, 2006; Foot et al. 2003). Less attention has been paid to their role – particularly the role of social media – in non-institutional political activity such as social movements, including the environment and climate movements.

Various benefits to social movement organisations (SMOs) in the areas of dissemination of information, framing, organisation and mobilisation have been noted (della Porta & Mosca 2009; Leizerov 2000; van Aelst & Walgrave 2004). Social media and SNS with their emphasis on open communication and contribution potentially offer similar opportunities for SMOs’ as part of their use of the internet. This is what the quotation in the thesis title refers to; a Tweet posted by Earth Hour organisers from their darkened campaign office during Earth Hour in Sydney, it hints at the communicative potential of social media to movement organisations and their campaigns.

Twitter as a popular social networking and microblogging service offers ‘climate SMOs’ a unique tool. It has the potential to facilitate both dissemination of information (to subscribers to their account as well as Twitter users in general) and social networking, enabling the creation and strengthening of ties, online and offline, to existing or potential participants. It was famously used to mobilise people in the April 2009 parliamentary election protests in Chişinău, Moldova, and in the 2009 Iranian presidential election protests, both events popularly given the label ‘Twitter Revolution’.

Twitter is a website which allows anyone to start an account and connect with other users free of charge. Users accumulate followers – those who receive your Tweets – and can

choose to follow others thus receiving their Tweets. Communication on Twitter occurs primarily through the posting (often frequent) of Tweets, or short messages of 140 characters or less, to one's account which are transmitted to followers' accounts (hence the term microblogging). Users can reply to friends' Tweets or Retweet them; that is repost one's own or someone else's Tweet onto one's account wall. Tweets can be tagged with hashtags (tags with a hash symbol in front of them added to a Tweet to mark it as related to a particular topic) which allows the observation of Tweets related to a particular subject and measurement of popular trending topics on Twitter.

Given the lack of prior research on SMOs' use of the internet for mobilisation and particularly their use of social media in mobilisation, this study will look at how climate SMOs are using Twitter as part of their mobilisation efforts. This research is largely exploratory intending to illuminate this area of the interface of SMOs and social media and open it up to further attention. It is hoped this thesis will provide some indication of how the internet and computer-mediated communication are affecting SMO mobilisation practices in general as well as inspiration for climate movement organisers using the internet and/or social media.

A comparative case study approach was adopted. Three climate SMO campaigns and their Twitter accounts were selected and compared on the differences and similarities between them in their practice. The three cases – 10:10, based in the UK; 350, based in the US; and Earth Hour, based in Australia – were selected on account of their having an interesting global campaign and showing extensive engagement with Twitter and clear efforts at engaging followers. The last, Earth Hour was selected additionally to compare the use of

Twitter in relation to the proximity and occurrence of the campaign's highlight or event which in Earth Hour's case occurred in the period observed.

Longitudinal data – four months worth – was gathered retrospectively from the three accounts. Analysis focused on drawing from the data prominent themes and practices informed by a number of leading theorists. These were primarily Alberto Melucci and his work on new social movements (NSMs), lifestyle and symbolic forms of contention; Manuel Castells and his concept of the network society; and Mario Diani and his extensive work on social networks and the internet. These approaches, and those of similar theorists, are set out in the literature review in Chapter 2 which follows this introduction.

In Chapter 3 the methodological issues are explored before a presentation of the findings in Chapter 4. Here the three data sets are broken down and reconstructed around prominent aspects of the accounts in order to present a picture of each campaign's practice. In Chapter 5 these practices are then compared across the three campaigns and their accounts and discussed in relation to the literature. Finally, in Chapter 6 conclusions are drawn from the three campaigns' and their use of Twitter.

Based on two previous studies (della Porta & Mosca 2009; van Aelst & Walgrave 2004) on Global Justice Movement (GJM) SMOs' design and use of their website it was believed that these three SMOs would display practices which took advantage of the networking and communication capabilities of Twitter and vary according to both the design of each campaign and the proximity of its highlight, or campaign event. The three cases did indeed present interesting and innovative uses of Twitter which complemented their campaigns and their aims and which included efforts to create and utilise online ties and social networks for participation.

Chapter 2 – Literature Review

2.1 Social Movements: two strands

There are and have been a number of general approaches to the study of social movements (della Porta & Diani 1999). However, I will only discuss here what can be considered the two main strands as they are illustrative enough of social movement thinking to allow further exploration of the sociological significance of my research. As Nick Crossley (2002: 10) explains, prior to the 1970s collective action was roughly explained according to either theories of collective behaviour by the American school of movement analysis or to Marxist class conflict by the European. Post-1970s, these two schools have evolved their thinking but maintained their particular flavour (Crossley 2002). The American school has moved into the more empirically based resource mobilisation and political process – focusing, generally speaking, on the political – while the European school into the more theoretically based new social movements – focusing on cultural explanations. I turn first to the American school.

2.2 American School

2.2.1 Resource Mobilisation Theory

Resource mobilisation theory became dominant in the 1970s due to what Steven Buechler (1993: 218-9) described as its ability to better explain the emerging social movements in the US during the 1960s and 70s – set off by the civil rights movement – compared to older theories. Social movements, in this view, were analysable basically in the same way as

institutional political struggle, the only difference being it was carried out by organised, aggrieved groups. The theory was greatly premised on the rationality of individuals and their instrumental consideration of the costs and benefits of joining and participating in social movement action (Beuchler 1993: 218-9).

2.2.2 Political Process

Resource mobilisation theory has continued strongly within America. However, with the increasing focus during the 1980s on how opportunities for social activism are influenced by social structures and political processes it spawned a new approach (Crossley 2002: 12). Political process premises individual agency and its freedoms and constraints within a given political system of opportunities for contention. For Doug McAdam (1982: 36) political process theory was a conceptualisation of social movements as ‘a *political* rather than psychological phenomenon’ [emphasis in original] as it was conceived in the older collective behaviour approach. Movements should be seen as processes from formation through to demise. Importantly, movements are only promoted by social forces ‘indirectly through a restructuring of existing power relations’ which occur due to long periods of social and political unrest (1982: 41-2). Social movements, in this account, essentially occur when political structures and processes provide opportunity for individuals to take such action.

Sidney Tarrow (1994: 81), another notable political process proponent, emphasised the primacy of agency and the realities of the political system stating that ‘social movements are more closely related to the incentives they provide for collective action than to underlying social or economic structures’. Greater emphasis is placed on forms of

movement organisation such as SMOs seeing them as the protagonists of contentious action within the “political opportunity structure”.

For Tarrow (1994: 86-9) social movements and collective action form due to ‘changes in the opportunity structure’ and more stable structural factors, such as state facilitation or repression of contention, influence movement actors’ expectations of success. Presented with an opportunity, social movements employ resources available to them using strategies appropriate to the specific opportunity situation often in competition with groups with opposing interests.

The three major resources available to social movements are (1994: 99): (i) the repertoire of collective action (i.e. ways and means); (ii) collective action frames; and (iii) organisational structure. The second, collective frames, is where culture – an important driving force in new social movement theory, as we shall see – comes into play in political opportunity. Tarrow (1994: 119) discusses the importance of ‘cultural symbols’ adapted and employed by social movements to frame their collective action in order to motivate participation and encourage solidarity. It is through frames provided by cultural symbols that individuals are able to construct meaning and engage with social movements.

Tarrow (1994: 135-6) divides the concept of organisational structure, (iii) mentioned above, into three forms, the distinction between which it was important to draw in order to avoid confusion in discussion of social movements:

1. *Formal organisations* – essentially SMOs.

2. *The organisation of movements* – the most important form being social networks which, similar to new social movement theorists such as Melucci, discussed below, Tarrow identified as integral to social movements.
3. *Mobilising structures* – the links which allowed movement leaders to organise collective action and maintain movements over time.

2.2.3 Criticisms of Political Process

Criticisms of political process often centre on its structural and specifically political bias and its inability to adequately account for culture and other social dynamics. For Jeff Goodwin and James Jasper (1999) a structural bias has led political process to assume a sort of infallibility of the political opportunity structure and to downplay culture and psychology. Both are much more important than how they are conceived in political process; culture and strategy, for instance, influence political opportunities and structures to a much greater degree than is accounted for by 'cultural frames'. Attempts to incorporate such non-structural factors have led often to 'conceptual stretching' creating ambiguous, ill-defined terms such as 'mobilising structures' and 'cultural framing' (1999: 52-3). Furthermore, the contexts and environments political process recognises are a lot more complex and dynamic than what is covered by a focus simply on political and structural qualities (1999: 54).

Crossley (2002) takes a different route taking aim at rational actor theory (RAT) and its influence on political process. Firstly, despite its explanatory and empirical value RAT, raises questions around the sociality, embeddedness and morality of agents; the concept of 'rationality'; and the issue of subjectivity. Secondly, RAT espouses a certain minimalism

which has led it to disregard sources of grievances and the social dynamics and much 'empirical and phenomenological data' (Crossley 2002: 13-14). This minimalism means, lastly, that attempts to address previously ignored social dynamics leaves political process in a 'vague and unclear position somewhere between RAT and a better alternative' with no coherent theoretical framework (2002: 14, 125).

In their book *Dynamics of Contention* (2001) McAdam, Tarrow and Charles Tilly, recognising the limitations of a static political process, attempt to reorient the perspective towards a more dynamic and relational and less structural approach to studying contentious politics. The authors propose that across numerous movements or episodes 'recurrent mechanisms and processes' can be identified which act as causal factors in collective action (2001: 32-3). 'Frequently recurring causal chains' of mechanisms like brokerage or the collective attribution of opportunity and threat form processes which can be used to explain social movements and collective action (2001: 27). Depending on context, these mechanisms and processes combine, or 'concatenate', in various ways and to varying degrees resulting in different movements and outcomes. Mechanisms and processes, McAdam *et al.* argue, are more flexible and descriptive than structural explanations including the network approach as they provide a means of identifying the common factors across movements whilst explaining the uniqueness of distinct episodes of collective action.

2.3 Framing

Framing is a prominent aspect of the political process approach and is common in contemporary studies of social movements (Benford & Snow 2000). Given its utility for

analysing movement mobilisation processes it is integral to this study and, as such, a brief description of it is necessary.

One of the earliest and most influential papers on the subject, one which is still just as relevant today, is Snow et al.'s (1986) which looked at how framing could be used from an organisational perspective to mobilise in different types of movements. Based on Goffman's (1974) work on frames, Snow et al. suggest that mobilisation occurs due to 'frame alignment' between the frames of the SMO and potential participants. When the frames of both parties align closely – 'frame resonance' – mobilisation is most successful (1986: 476-7). Frame alignment can be split into four processes each with related methods of micromobilisation (Snow et al. 1986: 467-476):

1. *Frame Bridging* – the linking of an SMO's frame to that of a similar frame belonging to another SMO or group of individuals by way of 'organizational outreach and information diffusion' for instance through face-to-face contact or the media.
2. *Frame Amplification* – the 'invigoration of an interpretive frame' through emphasis of the importance of certain values or beliefs relevant to participation in collective action.
3. *Frame Extension* – the stretching of an SMO's programs, values or goals to those which are of great importance to possible participants by identifying their values and interests and aligning them 'with participation in movement activities'.
4. *Frame Transformation* – the transformation of potential converts' interpretive frameworks by either reframing their perspective on a particular issue or area or their entire perspective or 'master frame'.

Frame analysis, Snow et al. (1986: 465-9) argue, accounts for and explains context and other social-psychological factors which affect the processes of participation individuals experience before and during participation in collective action; decisions to join and remain part of collective action being personal, complex, and constantly reassessed. Approaches such as resource mobilisation and network analysis miss these factors in their rather static or structural explanations of mobilisation. Framing is thus a useful addition to both contemporary network analysis and political process approaches.

2.4 New Social Movements

The concept of 'new' social movements (NSMs) emerged during the 1960s as movements from the feminist to the ecological emerged with great social and political impact. Theorists such as Habermas, Castells, Melucci and Touraine saw these movements as substantially unique; the result of the progression from an industrial to a post-industrial society. Such ideas of great social change point to Inglehart's (1977) argument of widespread and significant shifts from material to post-material values in the publics of Western nations. This in turn was premised somewhat on Maslow's (1954) hierarchy of human needs.

After a period of heavy industrialisation in the nineteenth and early twentieth centuries and post-war economic restructuring, it was argued, Western societies were changing. With the welfare state meeting citizens' material needs and workers' and citizenship rights guaranteed, people were starting to adopt post-material values such as cultural, lifestyle and identity concerns. As these concerns grew in popularity they became objects of contest

and collective action; they fed the growth of social movements which were unique, different to the earlier labour movements and altogether 'new' (Buechler 1995).

NSMs were 'new' however not only in regards to the issues which they addressed but in a number of other ways: the *type of action* (symbolic in the civic or cultural sphere as well as instrumental in the political), *operational style* ('autonomy and self-determination' over 'maximizing influence and power'); the *underlying social forces* which drove them (post-material values instead of 'conflict over material resources'); the importance of *collective identity and interests* as a process in movement formation; linked to this, the '*socially constructed nature of grievances and ideology*' (NSMs were not restricted to class but spanned multiple social groups); and, finally, the importance of *submerged social networks* to the formation and sustaining of social movements (Buechler 1995: 442).

These NSM theories emerged from attempts to address the perceived inadequacies of the Marxist tradition in Europe and its focus on class and material interests as the source of these seemingly new social conflicts (Buechler 1995: 441-442). NSM theorists argued for the importance of culture, meaning and agency and Alberto Melucci is notable amongst them for his attempts to redress these inadequacies by focusing on the role of identity and social networks in social movements.

2.4.1 Melucci

NSMs, as formulated by Alberto Melucci, are struggles over social and cultural forms of meaning and representation at once both personal and public. Traditional causal explanations for collective action stemming from either the Marxist emphasis on struggles

over control of material production or the sociological on personal beliefs and social forces were too narrow in focus for Melucci. Both the structural approach of Marxism and the social systems approach of collective behaviour denied a role for culture, individual agency and reflexivity. Essentially, neither model adequately explained the emergence of the social disruptions of the 1960s.

Melucci's 'new' social movements originate from different causes. Where once control of the means of material production was postulated as the source of social conflict and collective action, advances in science and technology have, Melucci (1980: 217-18) argues, extended attempts at control to the social and personal. Now, issues which were once of private concern are processes to be controlled; they have become issues of public interest and thus the sites of social contest. This was most visibly demonstrated in the feminist pronouncement that the personal is political.

These new social struggles are characteristic of advanced societies where 'control reaches beyond the productive structure into the areas of consumption, services, and social relations.' (1980: 217). The information and meaning which swirls around the civic space and informs individual identities and personal and social relations has been opened up to contest. NSMs, unlike earlier movements are not vehicles for attempts at gaining political or institutional power; rather, they are cultural challenges in and of themselves whereby the '*form* of the movement is itself a message, a symbolic challenge to the dominant codes' (Melucci 1989: 60; emphasis in original).

NSMs are the experimentation, construction and living out of alternative lifestyles, values and beliefs. These processes occur within 'submerged networks' so that NSMs can both continue in practice through periods of 'latency' as well as mobilise in more traditional,

visible forms when occasions of public conflict called for it (1989: 70-1). As such, the forms of collective action representative of NSMs are *pre-political* and *meta-political* in that they occur outside the political sphere, both before it – in individual lifestyle decisions – and above it – in cultural forces and symbols (1989: 72). In this way Melucci brings to the fore the role of culture in social movement study by making the valuable distinction between ‘mobilization and a movement’. These are the two dimensions of collective action; the more visible mobilisation and action, on the one hand, and, on the other, the hidden or submerged networks which create the social and lifestyle changes which constitute a social movement.

These submerged networks help the formation of collective identity which is an important aspect of NSMs. Where political process theorists such as Tarrow and McAdam propose incentives provided by collective action as the motivation for movement formation and individual participation Melucci (1989: 32-4) argues for collective identity claiming that it binds individual activists together and the process of its construction helps ‘actors to shape their expectations and calculate the costs and benefits of their actions’. Collective identity assists movement activists to define and make sense of their actions and apparent opportunities and constraints (Melucci 1995b: 44). Unlike past movements where collective identity arose from structural factors (i.e. class) in NSMs it is constructed and experienced through action and lifestyle (1995b: 50-1).

2.4.2 Criticisms of NSM

There is a substantial body of literature devoted to criticisms of NSM theory, however the most popular point of contention is the supposed 'novelty' of NSMs. Both Kenneth Tucker and Craig Calhoun take issue with the 'straw man' versions of Marxist labour that NSM theories employ. They criticise the apparent teleological view of modern history shared by NSM theorists which leads them to claims of the 'newness' of NSMs. Tucker (1991) argues that Habermas' view of the labour movements as largely instrumental is flawed and that these movements displayed emancipatory and cultural aims similar to NSMs. Calhoun (1993) extends the claim for similarities between earlier social movements and NSMs from labour movements to religious, ethnic, social and nationalist movements of the nineteenth century arguing that these were ignored by NSM theorists. Calhoun claims that cultural traditions which have extended through the last two hundred years have contributed to the rise of NSMs rather than a change to a unique social condition of post-industrialism.

Another criticism, commonly levelled at Melucci, is the continued importance of material conditions and associated political and economic struggles and relevance of contemporary social movements around these issues. Indeed many so called NSMs – such as the women's movement – appear to be as old as they are new in their focus on political and economic power as well as culture and meaning (Bartholomew & Mayer 1992: 151). CSMs have emerged in the second half of the twentieth century concerned with issues arising from post-war 'economic and social restructuring processes' (1992: 150) and more recently the Global Justice Movement has arisen dealing with both 'old' and 'new' issues.

For his part, Melucci has attempted to address these criticisms by pointing out that the term 'new' was intended to describe the difference rather than novelty of these movements

compared to previous forms. Social movements are also a lot more complex and diverse than the unitary image presented by many critics and proponents (1995a: 110-11). Melucci has attempted to reorient social movement study towards a sort of grounded approach aimed at uncovering the unique qualities of contemporary society based on the working notions of 'complex society' and 'information society' (Melucci 1996: 90-91; see also Melucci 1995a).

2.5 Social Networks

The concept of social networks and network analysis has had a marked impact on social movement study, adopted by political process and new social movement theorists alike for its explanatory value. Melucci's formulation of submerged networks underpinning social movements has more recently been advanced by a student of his, Mario Diani, who has used network analysis to approximate a more complete and detailed picture of social movements, incorporating also considerations of political context and structures. Diani describes links in social networks as relations of mutual understanding and recognition of interdependence between individuals. The influence of culture on networks can be seen in the way in which individuals form their views, make sense of the world and thus 'locate themselves within broader webs of ties and interactions' (Diani 2003: 5).

The rise in popularity in the social sciences of network analysis has led to a similar increase in the popularity of social mechanisms – similar to those of McAdam *et al.* (2001), mentioned above – which are, for Diani (2003: 4), the 'specific dynamics relevant to the

spread of social movement activity: among them, recruitment, framing, tactical adaptation of action repertoires, and of course networking’.

Diani (2003: 2) points out though that identifying how networks *operate* in social movements is only half of the equation; just as important is explaining how they *matter*, particularly in respect of individual participation and inter-organisational dynamics.

There are three types of networks, on which social movements depend for ‘existence and efficacy’ and which involve individual participation and inter-organisational networks:

1. those which link various movement organisations in times of mobilisation and of latency
2. those which connect these same organisations by common activists; and
3. those which enable activists to be recruited and are often based on preceding forms of participation (della Porta and Diani 1999: 112)

Social networks facilitate and sustain individual participation in collective action which constitutes a social movement. They do so by providing opportunities, transmitting social pressure, and enabling the development of relevant skills, competencies, values and feelings (Diani 2003: 8). Networks in social movements are distinguished from those in other forms of collective action by identity which forms the boundaries of movement networks giving the movement definition (Diani 2003: 10). Networks enable the construction of both individual and collective identities through contact with positively defined compatriots, negatively defined others, and neutrals, as well as the interplay of social forces (della Porta & Diani 1999: 85-7, 94-7).

At its heart, network analysis of social movements allows greater complexity in explanations through the explicit linking of social movements with their particular context. Networks are different for different organisations and individuals, even within the same movement, which reflects an organisation's character and structure as well as its context. An organisation's position within certain networks can explain the influence they have in a movement; so too an individual's position (as well as the density of their network) might suggest their likelihood of participating in collective action (Diani 2004: 344, 347). For instance the strength of personal identification with a movement is 'reinforced by ties to participants' (2004: 345).

McAdam looked at the influence of personal ties in his (1986) study of participation in the 1964 Mississippi Freedom Summer project. In this case, networks – in particular an individual's pre-existing ties to activists – better predicted individual participation in such high-risk activism in combination with individual motivating factors such as values and ideology – which themselves can be attributed to networks, as mentioned above. Donatella della Porta & Diani (1999: 133), extend this to three factors affecting participation in movements: the social position of the activist; solidarity links derived from past experiences of collective action; and the symbolic systems adopted by the actor.

As McAdam suggests complex combinations of motivating factors may be specific to particular cases of activism and 'it cannot be assumed that there is a single dynamic that determines entrance into all forms of activism' (1986: 89). In a similar vein, Diani (2003: 6) claims that the network approach illuminates the differences between social movements and there is arguably no need for a unifying definition of social movements. Social

movements are, after all, essentially 'complex and highly heterogeneous network structures' (Diani 2003: 1).

The importance of social networks to social movements has been recognised by both NSM and political process theorists, and represents some common ground between the two approaches. Indeed, the two schools have granted concessions to each other: for political process, the move away from structuralism and towards agency and context, and for NSM theories, the embrace of the political. Contemporary approaches from theorists such as McAdam, Tilly, Tarrow, Melucci, Diani and della Porta, recognising the complexity of late-modern society and social movements, draw on both schools (McAdam *et al.* 2001, Diani & McAdam 2003, della Porta & Tarrow 2005). There have been more ambitious attempts to reorient social movement study (Crossley 2003; Armstrong & Bernstein 2008). Social networks remain, however, the common factor in these contemporary approaches. They represent an endearing and useful explanatory tool for studying social movements, especially since the rise of the internet.

2.6 Online Social Networks

Social movements, like many other sociological phenomena, have unsurprisingly been indelibly affected by advances in information communication technology (ICT) in the twentieth and twenty first centuries. There is an extensive and ever-growing literature devoted to social movements and variously ICT, computer-mediated communication, and the internet. The internet presents a novel and interesting influence on social movements

particularly when we consider the apparent harmony between this technology and network analysis.

For Manuel Castells, the internet is an integral part of contemporary society and social movements. Initially, it was an 'appropriate material support for the diffusion of networked individualism as the dominant form of sociability' today (Castells 2001: 131). The internet has accelerated changes towards a society in which, predominantly, an individual's social network is actively constructed and managed by them – as opposed to being dictated by location or physical community:

Individuals build their networks, on-line and off-line, on the basis of their interests, values, affinities, and projects. Because of the flexibility and communicating power of the Internet, on-line social interaction plays an increasing role in social organization as a whole. On-line networks, when they stabilize in their practice, may build communities, virtual communities, different from physical communities, but not necessarily less intense or less effective in binding and mobilizing. (2001: 131)

This is the state of the 'network society' in which individuals explore and rewrite the rules of social interaction enabled by ever advancing technologies (Castells 2004: 4-5). The internet and the online and offline social networks it helps foster are ubiquitous and increasingly being integrated into the lives of individuals. This has significant implications for social movements, particularly the idea of choosing ties and building networks based on specific personal interests.

The internet is integral to contemporary social movements, according to Castells, as it is not only an advance in operational or organisational terms but it is now a space in which

movements 'manifest themselves'; 'a global electronic agora' where all varieties of dissatisfaction are expressed (2001: 138). Within the network society – similarly as in Melucci's 'complex society' – social, as well as other, movements engage primarily with 'cultural values' and 'codes of meaning' (2004: 140).

The internet was and is an ideal fit for the movements emerging within the network society because more than being simply a new technology it was an integral means of communication as well as the 'material infrastructure' of the networks on which these movements were increasingly based (2001: 139). Given what Castells sees as the decline of vertical-hierarchical forms of organisations, such as political parties and trade unions, contemporary social movements are filling the gap by using the internet to communicate with large numbers of people in order to change values, organise networks, mobilise for collective action and 'affect the consciousness of society as a whole' (2001: 140-1).

Another important aspect of contemporary social movements for Castells is their globalisation which addresses the current influence of global networks mentioned above. In order to affect social change and influence institutions with power social movements must increasingly aim and act at a global level by interacting with global institutions and networks. The internet is integral to this process as it enables organisation of the networks which constitute national and global movements as well as the communication of values and ideas. Again, however, one must not forget the local rootedness of movements and SMOs even while they engage with global forces: 'social movements must think local... and act global' (Castells 2001: 142-3).

At a more practical level Diani (2000: 387) proposes three aspects of social movements the internet – or computer-mediated communication – will influence. Taking social movements

as 'networks of informal relationships between a multiplicity of individuals and organizations, who share a distinctive collective identity, and mobilize resources on conflictual issues' the internet can be expected to affect:

1. 'the behaviour of specific movement actors, individuals or organisations'
2. 'the relations linking individual activists and organizations to each other', and
3. 'the feelings of mutual identification and solidarity which bond movement actors together and secure the persistence of movements even when specific campaigns are not taking place'.

In particular, for Diani the internet harbours the potential to improve communication and strengthen other linkages within and between movements. Communication can become more 'bidirectional' and dynamic with ICT encouraging greater interaction and contribution by activists via a two-way flow of information. Links between activists and organisations as well as within and between organisations in different locations and levels may be strengthened. These advantages are quite apart from the operational ones such as increased efficiency and reduced costs of organisation (both of SMOs and of movements in general), communication, mobilisation and dissemination of messages and information (2000: 388).

In terms of whether the internet will cause substantive changes such as new types of actors or possibly 'virtual' movements as opposed to more simply streamlining social movements and SMOs Diani (2000: 397) suggests that the latter is more likely the case. The internet will enhance mobilisation efforts by complimenting existing mobilisation networks and ties rather than create entirely new 'virtual' ties or communities, although it depends on the

type of resources the organisation is mainly mobilising. This is particularly so for movement organisations based on participation – which requires considerable levels of trust and collective identification usually developed in face-to-face interaction – and transnational networks and less so for those organisations who mobilise ‘professional’ (read financial) resources (2000: 397).

What is of interest, and what Diani is inferring, is *how* the internet is changing social movements. An important aspect of this is studying how SMOs use the internet. Donatella della Porta and Lorenzo Mosca (2009) examine how European and transnational SMOs in the Global Justice Movement used their websites by analysing the websites’ qualities. They found that SMOs’ choices regarding the design and use of their website reflected organisational characteristics and context. They conclude that the internet is not a technology which imposes itself top-down on users but is adapted by SMOs to suit their aims. These findings suggests that internet applications and services such as social media and social networking services (SNS) can be similarly adapted, possibly even to efforts at mobilisation, and that studying SMOs’ SNS accounts would provide insight into their practices.

Social media and social networking services, including Twitter, are receiving growing academic attention in respect of social, civic and particularly political engagement and participation (Onumajuru & Chigona 2010; Papacharissi 2009b; Robertson et al. 2009). Zizi Papacharissi (2009b: 243) argues that social media is creating online spaces in which ‘individuals can engage in healthy democratic practices’ and which ‘are essential in maintaining a politically active consciousness that may, when necessary, articulate a sizeable oppositional voice’. However, in relation to social movements and mobilisation

social media has received next to no attention; a surprising fact given the communication and networking potential of these applications. (For an interesting non-sociological study on Twitter and measuring its role in the 'real-world success' of the Earth Hour 2009 campaign in Australia see Cheong & Lee 2010)

As della Porta and Mosca (2009: 787) point out 'the important question of how web site potentials are implemented in their actual use still remains open'. The same can be said for SNS and Twitter. Accordingly, this paper applies this question to Twitter as a popular social networking service and an increasingly popular part of SMOs' web presence. It asks what practices SMOs employ in using Twitter, specifically in relation to framing and mobilisation, as well as the qualities of the ties and networks established on and over their Twitter accounts.

Chapter 3 – Methodology

This comparative case study aims to shed light on the ways movement organisations are using Twitter, as a relatively new form of computer-mediated communication, as part of their campaigns to mobilise individuals on climate change. Given its relative novelty, popularity and cultural prominence it was considered that on its own Twitter presented an interesting example of the use of social media in mobilisation with ample data. This decision was aided by my familiarity with Twitter based on previous experience in researching the social networking service.

Here would be as good a point as any to declare the preconceptions and past experience which inform my current research. The aforementioned previous experience researching Twitter arose from an interest in social movements and the potential promise of social media sparked by an internship with the Australian political activist organisation GetUp!. Research for the organisation carried out in this time introduced me to the Repower America website and campaign and inspired a small undergraduate research project on measuring longitudinally the popularity of events like Earth Hour on Twitter.

Accordingly, a degree of optimism regarding the potential of social media for organising and mobilising informed this paper and the focus on Twitter. Needless to say, there is a strong personal belief on behalf of the researcher that climate change is a significant global problem and requires substantial, rapid and widespread action from all levels of society to address it. This bias has motivated the intention for this paper to be a resource for those interested in tackling climate change and in particular those attempting to mobilise on this issue by potentially providing inspiration and ideas.

A comparative study was chosen as such a study 'is not limited in terms of descriptive, exploratory, or explanatory goals' (Campbell 2010: 174). By comparing three cases the aim was to create research which was both descriptive and exploratory given that the use of social media and Twitter in particular by movement organisations has received little academic attention. In his review of the literature on ICTs and social movements, R. Kelly Garrett (2006: 216) argues that 'more generalizable' research should become the focus of study in this area given its growing maturity. However, organisation-specific case studies 'have been effective in identifying innovations and adaptation associated with new ICTs' of which Twitter is one. Describing the efforts of a few interesting campaigns might serve to open up this area of social media and mobilisation to more in depth academic attention and is more appropriate to the desired aim of producing instrumental research for climate change movements and activists.

The differences between these three campaigns' use of Twitter reflected the selection process of the study. Taken from a list of 16 non-governmental organisations involved in addressing climate change and had, at least, a website compiled using the search engine Google, 10:10 was selected due to an interesting campaign design – open-source and organised around hubs in different countries. 350 was selected initially due to its connection to 10:10 through their shared 10/10/10 campaign, however, interesting data arose not out of this connection but out of a different campaign design and an apparent alternative philosophy to 10:10 for using Twitter. Earth Hour, finally, unlike the other two, clearly illustrated use of Twitter over the climax of a campaign, and an effective before and after.

The number of cases was decided upon due mainly to time constraints but also as part of the ongoing research process through which it was determined that the three selected were

interesting cases with sufficient data. Generalisability was not the overriding aim of this study. As Shelagh Campbell (2010: 174) explains the focus of comparative case studies is more on the cases themselves and what they say about theory:

The goal of comparative case studies is to discover contrasts, similarities, or patterns across the cases. These discoveries may in turn contribute to the development or the confirmation of theory.

Desire for it was, however, an influence and the selection of what appeared typical cases was important in order to allow some degree of generalisation of the campaigns' practices and patterns of use of Twitter as opposed to any explanations for these practices. In keeping with the instrumental nature of the research, cases were selected which it was thought would display uses of Twitter for mobilisation which could be generalisable or transferable by way of example or inspiration to similar organisations engaged with mobilising on climate change.

Giampietro Gobo's (2008) concept of 'emblematic cases' is useful to consider for this study as it allows generalisation of aspects of cases rather than the cases themselves. Emblematic cases are representative of social practices or general structures so that generalisation is not from:

the individual case or event... but the key structural features of which it is made up, and which are to be found in other cases or events belonging to the same species or class (2008: 206).

In this sense the three cases selected and their practices with Twitter were not so much typical as emblematic of the use of Twitter in climate change campaigns aimed at mobilising

globally by way of example for SMOs which shared similar structural features. The internet and Twitter provide relatively stable structural forms on which to base generalisations from this study. Essentially, the uses of Twitter observed here in these cases represent possibilities; technique and practices for mobilising with Twitter which can be replicated by similar movement organisations and campaigns as a result of similar 'structural features'.

The design for gathering data was a *retrospective longitudinal study* of the three Twitter accounts. Tweets which occurred over a preceding four month period were collected retrospectively allowing the observation of changes in practice over the period observed and to obtain a general snapshot of each campaign's use of Twitter. Four months was decided upon due to convenience considering the large amount and quality of data which was available over this length of time.

In the cases of 10:10 and 350 the four month period was that immediately preceding 29 August 2010. For Earth Hour it was split into two two-month periods due to the fact that, for an unknown reason, there was a one month gap in Tweets on Earth Hour's account two days after Earth Hour which effectively prevented a solid four month period. Accordingly the decision was made to take two two-month periods either side of this gap. Data from Twitter was also complimented by data gathered from the campaigns' websites, blogs and their other social media accounts. The Twitter account linked alongside its other social media accounts on the campaign's website was the one taken as their primary Twitter account and therefore was the one studied.

Theme analysis and coding were used to analyse the data. Initial observations of the data led to the formation of five categories which informed further analysis:

- Communication
- Content
- Resources/Links
- Tone
- Networks

Richard Boyatzis (1998: 29) describes three different ways of developing a thematic code: (i) theory driven; (ii) prior data or prior research driven; and (iii) inductive (i.e., from the raw data) or data driven. Given the lack of prior research on SMOs and social media and the exploratory intentions for this study themes were developed both from theory and the data; a ‘two ends of the continuum’ approach which can be utilised for ‘discovery-oriented research’ (1998: 30). Apart from NSM, political process and social network theories, the analysis was also informed by the concept of social media as open and coproduced. For Steven Schneider and Kirsten Foot (2004: 119) with ‘new media’ everyone is potentially user and producer and as such it both reflects forms of communication and shapes them.

The data presented by Twitter – numerous short and self-contained Tweets – meant themes emerged in an almost quantitative fashion through repetition in different Tweets. Coding was used here as a method for what Amanda Coffey and Paul Atkinson (1996: 28) call ‘data simplification or reduction’. By reducing the data, through coding, into broad or general categories one can ‘treat the data in quasi-quantitative ways’. This aids the ‘identifying and reordering [of] data, allowing the data to be thought of in new and different ways’ (Coffey & Atkinson 1996: 29).

The *emergence* of themes from the data was the focus of the analysis so a more open and flexible rather than a strict process of coding was followed. The aim was more to be able to describe general aspects or themes in order to explore the use of the individual Twitter accounts which could then be compared with each other.

A few studies of ICT have employed qualitative or descriptive approaches (Nisbet & Kotcher's 2009; Papacharissi 2009a). Most though, especially those focusing on social movements, have largely employed quantitative approaches often adapting existing coding schema (van Aelst & Walgrave 2004; della Porta & Mosca 2009; Stein 2009). This study, while largely qualitative, took something of a middle way by including some basic quantitative analysis in order to aid reduction of the data and more clearly identify practices which emerged over the four month period observed. This was possible due to the 'quasi-quantitative' nature of the data taken from Twitter. The inclusion of quantitative analysis as a form of triangulation of analysis would also compensate somewhat for the lack of triangulation of data sources resulting from the reliance on Twitter for data. This would generally help by 'enhancing the completeness of the findings, rendering a more in-depth understanding' of the use of Twitter for mobilisation by movement organisations (Evers & van Staa 2010: 750).

There were some notable limitations to this study however related to the reliance on Twitter as the primary source of data. Relying solely on documents of any form for research data leaves obscured the value and meaning the actors who create these documents put on means the action represented therein. This had two implications. Firstly, it limited what could be said about the intentions of campaign organisers in their use of Twitter and its position within their campaign and mobilisation efforts. This is an important aspect of the

use of any communication technology by an organisation. Secondly, the importance of priorities (online or offline) to a campaign and the influence of online interaction with one of the campaigns on individuals' decision to participate could only be inferred from data on these campaigns' Twitter accounts. Interviews with organisers and followers of these campaigns would have addressed both of these shortcomings.

Chapter 4 – Findings

In order to preserve an authentic Twitter grammar and the feel of immediacy and personalness of Twitter as a form of social media Tweets are quoted verbatim here. Spelling and grammar mistakes remain uncorrected.

4.1 10:10

4.1.1 Description of the organisation, campaign and its web presence

Launched on 1st September 2009, initially as a UK campaign, 10:10 is based in Camden Town, London (along with 10:10 UK). The campaign is organised globally via hubs – either a group or organisation – located in 40 different countries and which coordinate the campaign in their country on behalf of the 10:10 organisation – a registered company in the UK. Hubs are ‘granted editorial control over a country-specific section of the website’ and the freedom to organise their own efforts (10:10 2010) and use of resources such as 10:10 digital graphics and images.

On its *About* page (10:10 n.d. b) 10:10 describes its campaign as ‘an ambitious project to unite every sector of society behind one simple idea: cutting our carbon by 10% a year starting now...’ More specifically ‘10:10 is a voluntary emissions reduction campaign for any person, organisation or business to commit to cutting 10% of their emissions in a 12 month period starting in 2010’ (10:10 n.d. e). Such widespread action would represent a significant start to the efforts for larger cuts and send a message to politicians and leaders around the world to commit to cutting carbon emissions (10:10 n.d. a).

The concept of 10% by 2010 also had appeal due to its being a short term, achievable target which might more easily inspire action, especially political, than the often espoused larger far-off targets. Furthermore the 10:10 concept was 'simple, catchy, meaningful and something that everyone could get involved in – from businesses and hospitals to schools and families' (10:10 n.d. c).

10:10 describes its campaign as 'a tool... designed to help reach the vast majority of the population'. This is primarily the case with its aim to establish hubs in countries across the world where as an 'open source' campaign it offers the 'impressive body of campaign tools and strategy know-how' 10:10 has amassed – often internet-based such as its Wiki, a web page and 10:10 graphics – free of charge to anyone interested in setting up a hub in their country (10:10 n.d. d).

Finally, 10:10's web presence is an extensive and important part of the campaign. From its 10:10 Global website with the various country hub pages its presence extends out to its social media accounts and those of the country hubs as well as a dedicated page on the UK newspaper The Guardian's website. Over these websites 10:10 provides information and resources related to the campaign as well as climate change related issues. It allows people on its Global website to join up and spread the word, provides a Wiki (a basic, collaborative, easily edited website) to aid those setting up and running country hubs, email lists to keep members updated, and most importantly permits people to connect and interact with the organisation and each other online with its social media accounts.

4.1.2 Twitter

<http://twitter.com/1010>

10:10's Twitter account was called simply *1010* and although being directly linked from the 10:10 Global website appeared to be the account of 10:10 UK (location is given as 'London, UK' and its website as <http://1010uk.org>). *1010* 'follows' 5,286 Twitter users, has 5,855 users who follow it (following essentially being subscribing to regularly receive a user's Tweets) and has made 1,646 Tweets (as of 23 August 2010). In the four month period analysed – 22 April 2010 to 21 August 2010 – 10:10 posted 662 Tweets on its account.

Aside from whether this is a large following for an organisation like 10:10 on Twitter – which is not the concern of this analysis – the relative parity between the two figures suggests that 10:10 sees Twitter as a means of two-way communication; an effect Diani (2000: 388) claimed could be expected from the internet.

4.1.2.1 Communication

Observing *1010*'s wall suggests that 10:10 saw Twitter as a means of communication and interaction. Through sharing links, personal anecdotes and efforts and 'Retweeting' (reposting on your wall a Tweet from someone you follow on Twitter; indicated by 'RT') and replying to followers 10:10 used Twitter to converse (albeit in a very limited fashion) and create a connection with its followers online in a simple and effective manner. This could be seen in both the type of Tweet and the content of the Tweets.

Considering the types of Tweets on the page and their numbers gave a good indication of how 10:10 was using Twitter. For instance, the proportion of Tweets on its Twitter page

which were Retweets over the 4 month period equated to approximately 41%. This means that close to half the posts on 10:10's Twitter page were originally posted by another user. This strongly suggests that 10:10 was using Twitter not simply to send out a message but to engage and communicate with others online.

As well as Retweets 1 in 5 of 1010's Tweets are replies (indicated by @[username] occurring at the start of a Tweet) to Tweets from other users. This proportion indicated that 10:10 was putting effort into engaging and communicating with its followers using Twitter. The following exchange, or conversation, between 1010 and *sustainableOBU*, while longer than most, illustrates 10:10's engagement with others on Twitter over its campaign; in this instance over its Lighter Later campaign which aimed to move the clocks in winter and summer in the UK forward an hour to GMT +1 and GMT +2 to cut energy demand:

sustainableOBU:

[@1010](#) If we go to BST then what's the point of the global time system if its ref point isn't at 0? Keep GMT, change behaviour instead.

[9:01 PM Aug 13th](#)

10:10:

[@sustainableOBU](#) that's why we're calling it GMT +1 / +2 in the literature.

[9:03 PM Aug 13th](#)

10:10:

@[sustainableOBU](#) because changing the clocks is a much easier way to change behavior. Tiny implementation cost, huge return, instantly felt.

[9:12 PM Aug 13th](#)

sustainableOBU:

@[1010](#) Given the latitude dimensions of GB, it has huge implications. It won't reduce desire for energy, but sacrifice the North for the S.E.

[9:17 PM Aug 13th](#)

10:10:

@[sustainableOBU](#) have you read our research? Genuinely would like to know what points you disagree with.

[10:13 PM Aug 13th](#)

When taken together the number of Retweets and replies in the four month period was approximately 61%, therefore only about 40% of 10:10's posts on its Twitter page were original messages – a more one-way form of communication.

Of the 273 Retweets only a quarter, at approximately 26%, were from a group of 15 seemingly active users *1010* followed. This implies that 10:10 did not predominantly Retweet from a select, active group but instead Retweeted from a large number of Twitter users it followed effectively engaging and publicly acknowledging a large number of users.

4.1.2.2 Content

Tweets on 10:10's account were very much campaign related, either to their central and on-going 10:10 campaign or, to a lesser degree, to their 10/10/10 and Lighter Later campaigns.

Quite often these were updates of some form:

What a Friday morning at #1010. The Express(!) has splashed with support for

Lighter Later's call for clock change <http://twitpic.com/2e9jsn>

[7:53 PM Aug 13th](#)

Surprisingly, 10:10's joint campaign with 350, 10/10/10, was mentioned in only 16 Tweets over the four month period. Most of the focus was on 10:10's central 10% reductions campaign. This campaign being encouraging individuals and organisations to pledge to cut their carbon emissions the efforts of individual 10:10ers were, unsurprisingly, a common subject:

RT @[whoyoucallingad](#): Roadtripping through France today admiring the sunflower fields instead of flying on holiday <<Love it! Great work

[8:24 AM Jul 10th](#)

Interestingly, and perhaps idiosyncratically – reflecting the philosophy of the organisation or of the person/s responsible for 10:10's account – along the lines of cutting carbon, cycling was a very popular topic as were trains and, to a lesser extent, solar panels:

RT @[cian](#): Hello bike buddies. My two-wheeled friend and I need to get to Frankfurt in Aug. w/o Ryanair or Euro\$tar getting involved. Advice?

[6:25 AM Jul 20th](#)

UK music festivals and ticket giveaways were a common subject of Tweets as the four month period studied (22 April 2010 – 21 August 2010) coincided with the UK summer festival season. This focus seemed to suggest an attempt to engage with and attract the mainstream and youth online and offline.

4.1.2.3 Resources/Links

44 % of Tweets contained a link. 10:10's Twitter account presents a useful resource for followers due to the large number of links to relevant documents on the web posted in Tweets. These links were mostly either:

- campaign related information:

This week's #1010 seminar: The history of British social movements. Let us know if you'd like to come (Thurs, 5pm) <http://bit.ly/c0NWAH>

[12:25 AM Jun 9th](#)

- informative documents:

So someone (@[pirc](#) actually) has finally worked out how much electricity could be generated by offshore renewables in UK <http://bit.ly/bDDO3L>

[6:49 PM May 21st](#)

- opportunities for interaction. Of this type open ended questions and requests for campaign related photos from 10:10ers were quite frequent:

Send us your pics of the fab #1010 London Underground poster and win a 10:10 tag:

<http://bit.ly/dbN6Vh>

[2:25 AM Jun 29th](#)

- resources to help in cutting one's carbon emissions:

[addedentry](#) Loft insulation now fitted with subsidy from

<http://www.cocoonyourhome.co.uk/> - that's our @[1010](#) saved.

[8:39 PM Aug 9th](#)

Links to blog posts on climate change and sustainable living were also common. Photos were somewhat frequent with 31 links to photos occurring in different Tweets. Links to photos occurred most frequently in Tweets related to 10:10 campaign events and the daily operations of the organisation:

More great work from @[BandH1010](#): Big thanks to St Mary's School in [#Hove](#), and everyone that signed-up on sat <http://twitpic.com/24nfre>

[10:17 PM Jul 12th](#)

Videos were less frequently linked with only eight, mostly campaign related.

4.1.2.4 Tone

The overall tone of 10:10's Twitter page was one of positivity, affirming action and progress:

RT @[OteshaUK](#) on our cycle tours amazing volunteers travel across the country inspiring thousands to green up in fun ways! <http://is.gd/dD3Aw>

[12:10 AM Jul 24th](#)

As with its website there was little, almost no, mention of problems, opposition and negative sentiments in general. There was also a notably casual and conversational tone, even chatty and occasionally personal, due to the nature of the 10:10 campaign and the related high number of Retweets and replies about individual efforts to cut carbon emissions:

RT @robinhouston: My mother just bought a Pashley. She hasn't ridden a bicycle in at least the past 30 years, as far as I know. #1010

[3:16 AM Jul 21st](#)

A corresponding focus on the local and grassroots rather than the global was also present:

At Sony UK's #1010 launch. Thrilled to see their cafe using locally produced cooking oil/growing own herbs. <http://tweetphoto.com/21999160>

[1:36 AM May 12th](#)

This was not to the exclusion though of national issues as the new conservative UK government and its leader David Cameron received frequent mention in relation to the 10:10 campaign and the Lighter Later campaign. While very focused on the UK – unsurprising given it is 10:10 UK's Twitter account – with references to travel, actions, actors and events around Europe there was only minimal international feel with very few references to locations outside Europe.

4.1.2.5 Networks

10:10 provided 'lists' of notable followers, such as 10:10 hubs around the world, which could help followers connect with others and expand their online networks. Indications of online networks included the large number of Retweets and the replies. With Retweets, the large variety of sources of their sources suggests that 10:10 was using Twitter to expand its offline and online network by actively acknowledging and engaging a large number of its Twitter followers rather than focusing on a select active group.

There was some evidence of links between 10:10's account and 350's as two users, *will350* and *Agent350*, were Retweeted on both the former and the latter. While the two were unsurprisingly – judging by their usernames – much more frequently Retweeted on 350's account their presence on both displays some indirect, weak online links between the networks of the two organisations even if they were only limited to two users. This suggests that 10:10's global campaign and global online networks, enabled by the internet, could on Twitter be focused on and express the context of a particular country or region.

4.2 350

4.2.1 Description of the organisation, campaign and its web presence

Bill McKibben, the American climate change author, founded 350.org, an organisation 'coordinated by an international team of organizers... and young climate leaders from around the world' (350 n.d. b). In a sentence – or a mission statement – 350.org is:

“an international campaign that's building a movement to unite the world around solutions to the climate crisis--the [sic] solutions that science and justice demand.”

(350 n.d. a)

350's aims appear two-fold. While the primary target is undoubtedly action from political or 'world leaders' – a 'global treaty' – this is achieved by creating changes at the community level (350 n.d. c). To these ends, 10:10 encourages global awareness of climate change through 'creative activism' and symbolism.

The latter – symbolism – takes the form of the number 350 which while being a seemingly important scientific measurement is also something of a rallying point, 'a symbol of where we need to head as a planet' (350 n.d. a). Indeed the number 350 is, unsurprisingly, extremely prominent in 350's online and offline presence. Uniting the world is no small feat and as such 350 is aimed at international or global targets:

“We work hard to organize in a new way--everywhere at once.” (350 n.d. a)

Organising a movement which is both “grassroots” and “global” means creating a 'movement connected by the web' (350 n.d. c). 350's web presence is centred on its website on which it offers information, resources and interaction. However, it extends out onto many platforms including a 350 blog and an online store on CafePress.com which sells 350 merchandise. Resources range from a '350 Organizing Wiki' and organising and education guides through to action project grants and even downloadable posters and stickers. People can interact with the organisation by voting for the winner of said grants, posting their own content (for instance 350 related photos), interactive events map for 10/10/10, and via social media.

4.2.2 Twitter

<http://twitter.com/350>

Called simply *350*, 350's Twitter account 'follows' 17,972 users, has 19,010 followers and has made 3,021 Tweets (as of 31 August 2010). In the four month period analysed, from 29 April 2010 to 28 August 2010, 350 posted 474 Tweets on its account.

4.2.2.1 Communication

Of the total 474 Tweets 151, or nearly a third, were Retweets; 89, or about 20%, were replies to others' Tweets; and the rest, about half, were original Tweets from 350. Going on these figures, 350 seems to see its Twitter account as both a means of one-way communication and dissemination of information as well as more open communication and engagement.

A number of conversations were observed between *350* and various followers; one involving 6 Tweets from *350*'s side addressed to one follower. Most replies from *350* to followers, however, were either a public thank you to particular followers for a particular helpful action, or a genuine engagement with a follower's message:

@[jeffersonguedes](#) Sweet! What kind of climate solutions would you want to see in your community ? some ideas here: <http://ow.ly/1Qjhk>

[5:36 AM May 27th](#)

More than half the 151 Retweets by *350* can be accounted for by nine users and of these more than half (52 or a third of total Retweets) came from only two users: *Agent350* and

will350. This focus on a few followers suggests a number of strong, direct online ties between 350 and those followers.

4.2.2.2 Content

The content of most of the Tweets on 350 was either climate change related or related to 350 or its 10/10/10 campaign jointly run with 10:10:

Wild weekend for new 10/10/10 sign-ups! New events in Pakistan, Turkey, Kenya, Norway, Bolivia, Sudan, Yemen, more: www.350.org/map

[4:01 AM Aug 24th](#)

The 10/10/10 campaign was promoted or mentioned a lot more frequently, unsurprisingly, the closer to 10 October. Tweets related to taking some kind of action often referred to either 10/10/10 – for instance suggestions for organising an event or action – or to mobilisation in general:

How do you harness the web for [#climate](#) action? [@billmckibben](#) gives some solid advice in new video: <http://j.mp/aGZBbG> [#350ppm](#)

[9:29 AM Jul 15th](#)

Some Tweets were invitations to direct action:

we're jumping on a call in an hour to strategize on the re-charged [#climate](#) fight in wake of [#bp #oilspill](#)--join in? <http://j.mp/90rIYq>

[3:08 AM Jun 12th](#)

4.2.2.3 Resources/Links

Links were present in approximately 79% of Tweets. Links to information and resources tended to be related to campaigns or to the wider struggle or movement for climate action rather than simply informative climate change or the environment related resources.

Wondering what our take is on the [#climate](#) bill? Led by [@mayboeve](#), we've crafted a response here: <http://i.mp/bU9qM9> Your thoughts?

[9:04 AM May 13th](#)

Links to pictures or photos were fairly regular, often posted in a Tweet in relation to a 350 campaign or to a topical climate change or environmental issue. Photos were also frequently used to highlight the efforts of members around the world and the global extent of 350 and its 10/10/10 campaign:

This just in from Burundi -- crack team of [#climate](#) activists are getting to work for 10/10: [#350ppm](http://i.mp/bpyFHQ) #1010

[2:16 AM May 27th](#)

Videos were linked less frequently and in relation to either inspirational or informative movement related news or resources for organising:

Totally charged up by how [@350Singapore](#) rocked a recent Saturday for [#350ppm](#) action, watch the wrap-up vid: <http://i.mp/c6vJ9O>

[1:13 AM Jun 1st](#)

4.2.2.4 Tone

By contrast to 10:10's affirmative and positive campaign, the overall tone of Tweets on 350's Twitter account was mixed; problems and opposition were explicitly identified but

action, inspiration and successes were also emphasised. Reference was often made to failures, inaction or disasters related to climate change and to the Gulf Oil spill.

[philaroneanu](#) relieved that [#oilspill](#) has been stopped. Saddened by gulf lives & livelihoods lost. [@barackobama](#) we need real leadership on clean energy.

[12:02 AM May 28th](#)

Climate change was presented as a real and present global concern:

With Pakistan drowning, Russia on fire, & Greenland melting--We're now living a Hollywood global disaster movie. <http://j.mp/9iLjpf>

[6:32 AM Aug 19th](#)

However, mixed in with these Tweets were sentiments of hope and potential. Inspiration was mentioned fairly regularly:

Late night inspiration from Trinidad & Tobago: "Let us all be part of the solution."

<http://j.mp/ctfTJg> [#350ppm](#) [#climate](#)

[3:19 PM Aug 11th](#)

The themes of action, a movement around climate change and struggle were also a recurrent:

[will350](#) Right on [@philaroneanu](#)! What's next for the Climate Movement?

<http://j.mp/9CU3iW> "A movement soldiers on, gets creative and multiplies."

[12:39 AM Jul 27th](#)

Again, an impression of a global movement was given through a large variety of international locations and countries being mentioned; another contrast to 10:10 with its focus on the UK.

4.2.2.5 Networks

'Lists' organised by 350 made it easier for followers to find other useful or interesting users enabling them to create links to them by 'following' them, possibly strengthening and expanding online movement networks. 350 also interacted with sympathetic organisations on Twitter as well those organisations or users it was targeting in its campaigns:

[@savethechildren](#) [@ShelterBox](#) [@WorldVision](#) [@oxfam](#) Many thanks for all your work in Pakistan--hope we can be a hand. <http://350.org/disasters>

[4:30 AM Aug 21st](#)

Really psyched to sync up with [@Greenpeace](#) in a bigger way--y'all are super rad!

<http://bit.ly/aCSUSI> [#350ppm](#) #1010

[5:32 AM Jul 16th](#)

The link in the second Tweet, above, actually leads to a page on Greenpeace's international website which explains the 10/10/10 campaign. This page also encouraged people to take part in the campaign and to join 350 and 10:10 with links to and widgets taken from the 350 and 10:10 websites.

Two further indicators of networking by 350 online were the frequent recurrence of a number of users such as *billmckibben* (the Twitter account of 350 founder Bill McKibben), *Agent350* and *mayboeve* and the number of Retweets and replies, all discussed above. These suggest the existence of a number of strong ties with active followers which may help to extend 350's online network and efforts. Another possible implication of these online ties between 350, on the one hand, and active followers and sympathetic SMOs on the other, is that they are online forms of the ties della Porta and Diani (1999: 112) propose link movement organisations and establish movement networks.

4.3 Earth Hour

4.3.1 Description of the organisation, campaign and its web presence

The Earth Hour campaign is organised by the World Wildlife Fund (WWF) in partnership with advertising agency Leo Burnett and Fairfax Media. Various partner organisations from around the world also support the campaign's global efforts.

The first Earth Hour was held in Sydney in 2007 and now on the last Saturday of March every year participants, whether individuals, organisations, businesses, governments, cities, towns or municipalities, switch off their lights at night for a specified hour. In 2010 Earth Hour occurred on 27 March. The involvement of significant landmarks such as Christ the Redeemer in Rio de Janeiro is an important part of the campaign.

Earth Hour was developed around the concept of a 'campaign based on hope not fear, and the idea that everyone can take personal responsibility for the future of the planet we live on' (Earth Hour n.d. b). It is a global campaign which seeks to unite people over a desire for significant action to address climate change and spread awareness of current efforts.

Earth Hour is an open-source campaign whereby participants can effectively take any action they desire 'to spread Earth Hour's low-carbon message' (Earth Hour n.d. a). This philosophy is reflected in Earth Hour's web presence. Its website provides news updates, information about the campaign, how-to guides, and online resources to help people to 'be creative! Find a new way to mark Earth Hour' (Earth Hour n.d. c). Earth Hour's presence online extends across multiple social media and social network websites and accounts from an Earth Hour blog to Youtube and Flickr to Myspace, Twitter and Facebook. A recent example of their use of social media was the video created by Earth Hour to promote the campaign

was ‘premiered’ on its Facebook fan page and made use of ‘professional and amateur imagery shared by the hundreds of millions of people across the planet who took part in the most recent Earth Hour’ (Earth Hour 2010).

4.3.2 Twitter

<http://twitter.com/earthhour>

Earth Hour’s Twitter account is called *earthhour*. It is linked from the bottom of Earth Hour’s website home page and gives its ‘location’ as ‘Global’ suggesting this is the Earth Hour global Twitter account rather than a national one. *Earthhour* follows 9,859 users, has 32,497 followers and has made 3,039 Tweets (as of 7 September 2010). The four month period observed consisted of two two-month periods. The first covered the lead up to and the day of Earth Hour, 1 February 2010 – 31 March 2010; the second occurred after Earth Hour, 7 May 2010 – 6 July 2010. In this time Earth Hour posted 706 Tweets on its account.

Earth Hour’s use of its Twitter account was determined by the proximity of the Earth Hour event. In the months leading-up to and the day of the event Earth Hour primarily promoted its campaign. In the two months after the the account was used generally to promote the campaign and related environmental issues.

4.3.2.1 Communication

In the four month period observed Earth Hour made 706 Tweets. In the post-EH period, 7 May – 6 July, only 80 Tweets were made or approximately 11% of the four month total. In

the lead-up period, however, (1 February – 31 March), 626 Tweets were made; nearly 89% of the total 706. With an eight-fold difference between the two periods Earth Hour was significantly more active on its account in the lead up to and on the day of Earth Hour than in the period one to three months after the event.

		%* of 4 month		%* of # of Tweets in respective period		%* of # of Tweets in respective period	
	Tweets	total	RTs		@s		
Post EH 2 months	80	11	9	11	7	9	
Lead-up 2 months	626	89	86	14	63	10	
Total	706	100	95	14	70	10	
27 March - EH	163	23	54	33	13	8	

* All percentages are approximate

Furthermore, in just the approximately 24 hour period which represented the day of Earth Hour (27 March 2010; on *earthhour* 4:47pm (AEST) 27 March – 6:35pm (AEST) 28 March) there were 163 Tweets posted which was nearly a quarter of all Tweets in the lead-up period and twice as many as the two months post-EH. It is clear that Earth Hour placed a lot more value in its Twitter account in the months leading-up to Earth Hour and particularly on the day of the event itself. To find out how they used it we must look at the types of Tweets posted.

From the table above we can see that the percentage of Earth Hour's posts that were Retweets was fairly similar across the two two-month periods and overall at either 11% or 14%. There was a marked change, though, over the 24 hours of Earth Hour where the rate of Retweets shot up to 33%. This jump would suggest that Earth Hour actively sought to involve followers in their online coverage of the event as it unfolded by frequently

Retweeting their posts. The consistency over the rest of the four months would appear to suggest that for Earth Hour Retweeting others posts was a regular practice throughout their campaign cycle though not a major one.

A similar pattern was not the case with replies. Over the two two-month periods, the day of Earth Hour and overall replies hovered between 8% and 11%. Compared with the rates of Retweets, replies were marginally less frequent overall except over the 24 hours of Earth Hour during which replies were far less frequent than Retweets – 8% compared to 33% respectively. This suggests that over the four month period attempts at active engagement and more open communication with followers, in the form of replying and Retweeting, was less important to Earth Hour than one-way communication. That is, apart from the 24 hours of Earth Hour over which it appears a concerted effort was made to include and engage followers through Retweeting. Such a conclusion is also supported by the heavy four month overall bias to original posts over both Retweets and replies. The content of this communication is analysed below.

One Tweet from *earthhour* during the Earth Hour period cast some light on how Earth Hour saw Twitter, at least in this period, suggesting that even if they didn't engage with followers' Tweets so much they still valued them as a means of communication with followers from around the world:

We're finding Google Translate invaluable today for reading all of our international

[#earthhour](#) tweets... keep them coming please!

[5:09 AM Mar 28th](#) via [TweetDeck](#)

Conversations – longer than two replies from earthhour and two from one or two other users – were not present, with one exception.

Of the 95 Retweets over the four months only six followers were Retweeted on *earthhour* more than twice and these users made up just 26 of the total 95 Retweets. Most Retweets therefore were from many followers. These figures may suggest that Earth Hour sought to involve a variety of followers by using Retweets to acknowledge or involve a variety of people rather than focus on a select, active few.

4.3.2.2 Content

The content of *earthhour's* Tweets was almost entirely related to Earth Hour as an organisation and particularly as a campaign. Tweets mentioning Earth Hour were mostly directly related to the campaign, for instance an update on a new noteworthy participant in Earth Hour, or indirectly through some kind of link to the campaign. Indirect links were particularly prominent in the two month period after Earth Hour.

The two month lead-up period, on the other hand, including the 24 hour period of Earth Hour, was saturated with campaign updates. These updates referred to countries and locations, organisations and individuals from around the world participating in Earth Hour. Famous landmarks taking part in Earth Hour were also frequently mentioned, as were large companies. Also common in the lead-up period were Retweets mentioning what the Earth Hour followers were doing for Earth Hour:

RT @[alambchop](#): Doctor seuss by candlelight [#earthhour](#)

<http://tweetphoto.com/16065239>

[4:59 AM Mar 28th](#)

Opportunities to act or participate offline in Earth Hour events or online by spreading the word and posting one's own content were common:

RT @[EarthHourDubai](#): people are starting to go to Jumeirah Beach Hotel for the lantern march. Meet us there! [#EarthHour](#) [#Dubai](#) starts @ 8:30.

[1:43 AM Mar 28th](#)

There's already a few photos from Sydney trickling on to flickr: <http://bit.ly/dcWgMs>

Start uploading and sharing folks! [#earthhour](#)

[8:40 PM Mar 27th](#)

Requests for more substantial involvement were also posted:

Hey everyone - we're really trying to get more countries on board officially in the Caribbean. Can you help?

[8:56 AM Mar 17th](#)

4.3.2.3 Resources/Links

391 Tweets, or 55%, contained a link. In the post-Earth Hour period these links were most often to resources for leading a low-carbon lifestyle or to informative or educational resources. In the lead-up period, however, these links were overwhelmingly to photos and often videos related to Earth Hour. Links to stories or pages describing an organisation, business or monument's taking part in Earth Hour were somewhat common as were links to articles on Earth Hour. Resources for taking part online were also offered:

Want to join the movement? Add an Earth Hour banner to you site!

<http://bit.ly/csZSR0>

[6:27 AM Mar 16th](#)

Early on in the lead-up period Earth Hour's other websites were promoted with links to its blog, Facebook pages and to various Earth Hour national sites. Throughout, photos and videos were both a means of promoting the campaign and of involving followers in it in additional ways, as can be seen in this Tweet with its link to an Earth Hour video on Youtube:

We've surpassed 20,000 views! Next goal = 100,000. How can you help us? Show us what can be done! <http://bit.ly/cogZ1t>.

[Wednesday, 24 February 2010 10:37:52 AM](#)

Given the nature of the campaign and the frequent encouragement of followers to contribute their own images, photos came from both followers (in Retweets) and from Earth Hour. A number of image hosting sites were used: Flickr, TwitPic and tweetphoto. Photos were used extensively over the 24 hours of Earth Hour to illustrate the event as it happened around the world. Most of the photos from this period occurred in Tweets related to specific locations, structures or people involved in Earth Hour:

RT @[travelwithMM](#): Great photo of Cologne, Germany, gone dark for [#earthhour](#):

<http://tinyurl.com/y8cs5do> (HT @[travelwithMM](#))

[6:30 AM Mar 28th](#)

Photos were clearly an important aspect of Earth Hour's coverage of the day of the event on Twitter as photos were considerably more frequent in the 24 hours of Earth Hour – 35 out

of a total 163 Tweets – than in the months and days leading up to it – 10 from 458 – and the two month post-Earth Hour period – 1 from 80. Videos were linked occasionally but in a similar fashion to photos placed in updates illustrating Earth Hour events:

RT @[EarthHourCasa](#): Watch London Now In Live Streaming ! All In Dark !

<http://bit.ly/a8klrb> / FANTASTIC.

[7:11 AM Mar 28th](#)

Social media and social network sites were also frequently mentioned in relation to spreading the word and connecting with the Earth Hour campaign.

4.3.2.4 Tone

The tone throughout was positive, energetic and focused on action both individual and global. The post-Earth Hour period highlighted opportunities for participation in various related environmental campaigns or activities and environmental achievements and as a result was a little scattered. The Earth Hour campaign was not mentioned regularly and when it was it was only in relation to topical events like the World Cup.

The lead-up period was one of constant action and updates especially over the 24 hours in which Earth Hour crossed the globe. In particular, there was a feel of a large, international movement with frequent reference to scale and participants from around the world.

Particularly during the 24 hours of Earth Hour:

A whole lotta cities & countries just went dark for [#earthhour](#): Madagascar, Tanzania, Qatar, Jerusalem, Kuwait, Bahrain, Nairobi, & Riyadh.

[3:30 AM Mar 28th](#)

There was a personal tone though both in a connection with others around the world as well as with the organisers through their experiences with the event:

Lights are off in the office! This is how Cavemen must have done Social Media!

[#EarthHour](#)

[7:30 PM Mar 27th](#)

A sense of anticipation and momentum was built and maintained in the lead-up to 27 March with the constant stream of campaign updates mentioning new participants, especially in the few days prior to Earth Hour. Achievement and progress were central aspects of this. Individual efficacy and value were also emphasised:

We were contacted by someone late last week who wanted to see Earth Hour in their country, and now we've helped them come on board!

[1:53 AM Mar 10th](#)

4.3.2.5 Networks

Earth Hour made extensive efforts on its Twitter account to involve people in Earth Hour using the network properties of social media. Online participation in Earth Hour in the form of spreading the word or posting your own content was greatly encouraged on its Twitter account. To these ends use of social media sites like Tweetphoto and in particular Flickr,

and of social network sites such as Facebook, were extensively incorporated into Earth Hour's use of Twitter:

Remember, when tweeting, blogging, Flickr-ing or anything about Earth Hour, make sure you tag it Earth Hour! [#EarthHour](#)

[12:45 AM Mar 27th](#)

The above Tweets from *earthhour* illustrates how Twitter made use of the network properties of social networking and social media to spread the word about Earth Hour and include participants in the creation of online Earth Hour content. These actions point towards efforts from Earth Hour to make use of and expand its existing online networks as well as capitalise on the extended networks enabled by social media:

RT @[mashable](#): HOW TO: Support Earth Hour With Social Media-

<http://bit.ly/aDiRXZ> [#earthhour](#)

[2:07 AM Mar 28th](#)

The use of multiple platforms was clearly a part of this as illustrated in the Tweet below by an application designed for the Blackberry (smartphone) which allowed followers to remain connected to the campaign wherever they were:

RT @[afalcao1105](#): Support [#EarthHour](#)! Download the Earth Hour Blackberry App.

Get it here: <http://wwf.ca/ehapp>

[8:39 AM Mar 17th](#)

Chapter 5 – Discussion

5.1 Online involvement, interaction and communication

Online involvement, interaction and communication were all evident to varying degrees and represented concerted efforts on the part of the campaigns and their organisers to include participants in their respective campaigns in ways additional to general participation.

10:10 showed the greatest amount of interaction and communication with its followers. It had the highest rates of Retweets and replies, evidence of engagement and communication with followers. It also involved participants by recognising their efforts in reducing personal carbon emissions, posting questions and even running competitions on its account. Recognising participants' efforts was an important aspect as these Retweets from followers acted as forms of public recognition and thanks as well as examples and inspiration to other participants.

Communication and interaction with followers for 350, however, was, like its account in general, mixed. Replies –of which it displayed a similar rate to 10:10 – formed the main part of 350's communication efforts and it appeared genuine communication consisting of replies to followers' questions; recognition of and thanks to participants or sympathetic groups and organisations; and suggestions, questions and occasionally requests to followers. As a campaign or organisation which, unlike Earth Hour and 10:10, was not focused on or devoted to just one campaign this type of genuine and open communication reflected a desire to engage many and effect a sea change or build a movement around climate change in general as opposed to around a particular campaign.

Earth Hour displayed the least amount of communication, or perhaps more accurately open communication, of the three campaigns with comparatively low levels of Retweets and replies. It did however show concerted efforts to involve followers particularly in the days leading up to Earth Hour and on the day itself. It did so in the lead-up by requesting ideas for ways to mark or spend Earth Hour and asking followers to monitor Twitter for 'buzz' about the campaign. On the day it encouraged followers to upload photos of their experience of the event and check out others, particularly on Earth Hour's Flickr account. Indeed efforts to involve followers around user generated content and social media were a remarkable aspect of Earth Hour's use of Twitter compared to the other two campaigns.

Diani (2000: 388) suggests that ICT could increase 'bidirectional and dynamic' communication and 'interaction and contribution by activists' as well as stronger ties between organisations and activists. There was definitely substantial interaction and contribution from participants on Twitter, particularly in the case of Earth Hour. The potential for dynamic communication too was utilised by all three campaigns although 350 and Earth Hour both favoured more traditional, unidirectional forms of communication – particularly Earth Hour – while 10:10 was the only account to show significant efforts at 'bidirectional and dynamic' communication.

Whether these efforts represent the formation of stronger ties between the organisations and their participants cannot be said without comparisons selected to test this. However, as Diani (2003: 8) points out strong ties may not be important to organisations where the primary activity for participants is low-risk or moderate and diffusion of the movement is important, in which case weak ties might be more valued. This idea is further explored below. Ties and networks are the next theme explored.

5.2 Personal connections, ties and online networks

Closely related to the above themes around communication and involvement were those of online networks and ties. Given that Twitter is a social network service it provided immediate ties and an online network in the case of each campaign. Diani (2003: 8) argues that social networks and ties facilitate and sustain individual participation in collective action by providing opportunities, transmitting social pressure, and enabling the development of relevant skills, competencies, values and feelings. The question then is what was the nature and quality of these ties and online networks on Twitter and how were they used by the campaigns.

Ascertaining the strength or weakness of the ties on these accounts between the campaign and individual participants was difficult without investigation of the prior ties (online or offline) followers had to one of the campaigns and how these affected their participation or lack thereof in the campaign. McAdam (1986), for instance, showed that pre-existing ties to activists as well as relevant personal values affected an individual's decision to join a particular form of action, albeit high-risk action. While there was little evidence of the nature of the pre-existing ties to one of these campaigns which led followers to connect to them over Twitter, McAdam's position might suggest that most would have joined through ties to individuals who were already members of the campaign. The implicit assumption here is that for each campaign most of its followers on Twitter were also members of the campaign – those who had signed up to it to take part. Some followers, however, may have had indirect or no prior ties to these campaigns and joined simply either by exposure to offline or online media. Possible evidence of entry through another organisation came in the form of a page on Greenpeace's international website – linked in a Tweet on 350's account

– which promoted the 10/10/10 campaign and allowed individuals to sign up to it online. Other links discussed in Chapter 4, such as ‘lists’ of sympathetic groups or organisations compiled by the campaigns, suggest the possibility of the presence of what Diani (2004: 349) calls inter-organisational links built on individuals who interact with or are members of multiple organisations, but online, enabled by the internet.

Strength and pre-existence aside, there were certainly efforts to strengthen or consolidate ties. The most interesting aspect here, though, was that of the directness of the ties on these Twitter accounts. Diani (2003: 6) describes ties as either *direct* (i.e. personal relationships) or *indirect* (i.e. a shared ‘relevant activity or resource’). Twitter as a social networking service and a means of disseminating information to followers allowed at least indirect ties, particularly to less engaged followers. Followers who were more active and interacted or communicated with the campaigns’ on or via their Twitter accounts, it could be argued, shared something of a personal link with the campaign or organisers, despite the lack of face-to-face contact.

10:10 was the best example of the possibility of direct online personal ties. Building on observations of 10:10’s efforts towards engagement and communication, the campaign displayed efforts to establish what could be described as a kind of personal connection with followers through a casual tone to Tweets and communication and Tweets which provided insights to the operations of the campaign and those running it in the London office. Providing an ‘emotional intensity’ (Diani 2003: 7) to ties appeared to be an effort to strengthen those provided by Twitter especially considering the campaign was an ongoing one and stronger ties could have helped participants maintain commitments which span a

year at least. Indeed, communication and engagement to motivate and assist participants seemed to be the primary use of the online network established by 10:10 on Twitter.

As with 10:10, 350's predominant form of communication seemed to inform its efforts to consolidate online ties. 10:10's communication with multiple followers and friendly organisations, as mentioned above, appeared aimed at building a movement by strengthening ties based on either its 10/10/10 campaign or on efforts to combat climate change in general. In this sense, 10:10 may have been using Twitter to both foster new online ties and strengthen ties which already existed offline. Again as with 10:10, the form of communication which was used to strengthen ties and online networks was also the purpose of this online network provided by Twitter. 350 had a far larger number of followers than either 10:10 or Earth Hour and considering as well the large difference between its number of followers (32,497) and those it followed (9,859) it seems that 350 saw Twitter as a way of establishing ties and expanding its online network by simply connecting – rather than communicating – with many people in the hope of spreading the word to build a global movement around climate change.

Earth Hour's use of its online network related to its engagement of followers – at least its primary form of engagement – seeking photos and suggestions related to Earth Hour. Earth Hour used the online network enabled by Twitter to gather content related to its campaign from followers around the world, allowing them to become more involved in the campaign and providing organisers with content which, amongst other things, it used to make a promotional video for the campaign in 2011. While the contribution of one's photos may not have required particularly strong ties, the increased online participation of followers may have served to strengthen ties between the campaign and those participants (who

were followers on Twitter), something which would be beneficial for the Earth Hour campaign's ongoing efforts.

It may even be best to consider Earth Hour's practice as consolidating rather than strengthening links with participants (if we consider strong links necessary for high-risk participation; Diani 2003: 8). 'Solidarity links derived from past experiences of collective action' are one of the three factors according to della Porta and Diani (1999: 133) which affect participation in movements – even if, in this case, past experience is as simple as contributing content. Similar to Melucci's (1989: 70-1) claim for submerged networks this may also help Earth Hour maintain its ties and (online and offline) networks through what might be referred to as periods of latency in the period between the end of one Earth Hour and the build-up to the next the following year. Diani (2000: 387) indeed suggested that the internet would likely affect 'the feelings of mutual identification and solidarity which bond movement actors together' through periods of latency.

Verta Taylor's (1989) 'abeyance structures' provide an explanation for Earth Hour's practice here. The structures of movement organisation culture, temporality and purposive commitment, Taylor (1989: 772) argues, 'promote movement continuity and are employed in later rounds of mass mobilization'. By promoting symbolic offline action and simple online participation in its campaign Earth Hour sought to establish or instil a *culture* of immediate and local action. These efforts were supported by online ties, thus strengthening participants' *commitment* to the campaign and providing *temporality* or participants' continued ties to the campaign.

The different practices in establishing and maintaining online ties between the three campaigns, or more accurately between 10:10, on one hand, and 350 and Earth Hour, on

the other, come down to strategies which reflect Mark Granovetter's theories of the 'strength of weak ties' and network density. Granovetter (1973: 1378) argues that weak ties are 'indispensable to individuals' opportunities and to their integration into communities' by linking them to different groups or organisations with different opportunities. Weak ties essentially facilitate the dissemination of information between various social networks. This appears to approximate the strategies of 350 and Earth Hour with Twitter. Both had large networks (judging by number of followers) and emphasised the size of their campaigns and efforts to grow them and spread the word.

These strategies also reflect Granovetter's (2005: 34-5) concept of 'network density' which holds that the larger the group the less dense its networks as 'people have cognitive, emotional, spatial and temporal limits on how many social ties they can sustain'. Conversely, smaller groups have a denser social network and, as such, are more likely to encourage participation. Compared to 10:10, Earth Hour and 350 had larger networks on Twitter and in their efforts placed less emphasis on strengthening ties; although Earth Hour was somewhere in between 350 and 10:10 on this as it did extensively encourage participation. 10:10's strategy, considering its network on Twitter was comparatively small, appeared to be to focus its efforts on strengthening ties and creating a dense online social network which encouraged participation in its campaign. These strategies concerning online ties and participation have important implications for encouraging participation and tackling the free-rider problem, issues addressed later on in this chapter.

5.3 Framing

Framing on the Twitter accounts in this study seemed to be largely focused on bridging and amplification, essentially communicating with those already with close “frame alignment” to the campaigns. As discussed in Chapter 2, Snow et al. (1986: 468) explain how frame bridging is mainly achieved via the spread of information ‘through interpersonal or intergroup networks, the mass media, the telephone, and direct mail.’ Twitter as a social media platform and networking service displays qualities of all of these and allowed the campaigns to disseminate information to followers. As such, it was a means of connecting individuals’ with similar frameworks to the campaigns. Earth Hour took this one step further by involving followers in the process frequently asking them to ‘spread the word’ about Earth Hour via Twitter, Facebook or blogs so that followers were effectively extending the bridging process.

“Frame amplification” comes in two forms: values and beliefs amplification, and of the latter there are 5 forms: (i) ‘the seriousness of the problem’; (ii) ‘the locus of causality or blame’; (iii) ‘stereotypic beliefs about antagonists’; (iv) ‘the probability of change or the efficacy of collective action’; and (v) ‘the necessity and propriety of “standing up”’ (Snow et al. 1986: 469-70). With these three accounts beliefs were amplified rather than values. Emphasis on (iv) the efficacy of collective action was largely absent – apart from mentions of campaign successes – with much more emphasis placed on (v) the value of individual or group action - essentially grassroots action. Indeed, this was the main form of frame amplification observed.

In terms of the campaign and action all three campaigns emphasised the importance of individual *and* group action – essentially grassroots action. 10:10 on its account particularly

emphasised individual action and its value. In relation to its campaign, action was presented as meaningful, achievable and often simple and fun changes to lifestyle habits to help make a difference. Related to its campaign, individual action was framed – on its account at least – as almost part of a community of people and organisations – including the 10:10 organisers – encouraging and discussing how to lead a low-carbon life. In this sense, 10:10's campaign and the way it framed it was directed at promoting and communicating alternative lifestyles in the form of Melucci's (1989: 60) lived movements where the movement is the message, an expression of difference or of the possibility of alternative lifestyles.

Earth Hour's campaign and framing also showed a Meluccian concern with culture and the power of lived and symbolic forms of resistance. Earth Hour placed mixed emphasis on individual, group, organisation and community action. Participation was presented as enjoyable for individuals and creative (particularly individual action), communal in the sense of bringing people together both locally and globally, and meaningful in its symbolic value. Action was largely framed though in terms of being part of a large, exciting global campaign and event. The Earth Hour campaign's use of symbolic action also showed an engagement with Castells' (2004: 140) 'cultural codes' and 'codes of meaning' which he saw as the primary objects of interest for contemporary social movements in the network society.

The importance of the internet and computer-mediated communication to global movements for communication and coordination, particularly in the Global Justice Movement, is already well documented (della Porta 2007; della Porta & Tarrow 2005; van Aelst & Walgrave 2004). This seems to have been the case with 350 which highlighted individual and group action but presented it in the context of a global movement. The theme of a global climate change movement was a central aspect of both 350's and Earth

Hour's accounts and all three campaigns (while not a focus of 10:10's account it was an important aspect of its website). This focus was enabled by Twitter allowing simple and immediate global communication between the campaign (and its account) and its followers.

350's focus on a global movement in turn was positioned not just as tackling climate change but environmental and social problems in general. Inspiration was a big part of this effort in the sense of grassroots action within a movement inspiring hope, action and change in the face of despair at the many environmental ills.

Indeed, climate change and environmental problems represented a significant form of amplification of (i) the seriousness of the problem by 350; a form of amplification which was not shared by 10:10 or Earth Hour, their focus being largely affirmative on action, and the campaign.. For 350 this involved presenting climate change both positively and negatively as a very immediate global problem within the context of other topical environmental and social problems. A focus on negative aspects of climate change as well as rhetoric around a 'climate war' seemed to reflect efforts at appropriating or constructing a collective identity defined through opposition or conflict for the movement they were trying to build. Melucci (1996: 74-5) argues that collective identity is reinforced in conflict and the bonds it fosters help participants 'make sense of what they are doing' and 'gather and focus their resources'. Using Twitter, then, to maintain a sense of conflict and enforce a collective identity may well strengthen the bonds between 350's followers and strengthen the movement.

350 also displayed some amplification of (ii) stereotypic beliefs of antagonists in the form of various parties from oil companies, and oil rich nations to Barack Obama for not pursuing

significant action to address climate change. Again, 10:10 and Earth Hour kept a more positive campaign with no mention of antagonists.

Unlike the other two campaigns, 10:10 engaged in the third and fourth forms of frame alignment, 'frame extension' and 'frame transformation'. The former involves the stretching of a movement organisation's framework to include the values or interests of a group of individuals in order to recruit them. This could entail the inclusion of new perspectives into the SMO's framework or simply stunts to attract uninterested individuals to movement events (Snow et al. 1986: 472). While not as prominent as frame bridging and amplification, frame extension was performed by 10:10 in its incorporation of its offline efforts with UK summer music festivals and competitions it ran on its Twitter account to win tickets to these accounts. Such efforts could be seen as attempts to 'attract otherwise uninterested individuals' to the 10:10 campaign, namely youth.

The frame transformation 10:10 engaged in was domain-specific which involved transforming individuals' perception of the domain of their actions which for 10:10 was lifestyle habits and their role in collective efforts to tackle climate change (1986: 474-5). While often not explicit, by focusing on lifestyle changes and the personal efforts of followers – say taking a train instead of flying – 10:10 appeared to use its account to try to convince its followers that their everyday behaviours and habits and the changes they made played a part in efforts to combat climate change.

5.4 Relation between the online and offline – action and mobilisation

As discussed in Chapter 2, Diani (2000) proposed that the internet would not create any substantially new actors or movements and would instead simply extend existing social ties and networks online. The internet was much more likely to have smaller peripheral but positive effects around communication, inter-organisational and organisation to individual ties, and the behaviour of movement actors. The results of this study largely support Diani's arguments but suggest a greater effectiveness for online ties not based on direct offline ties to a movement organisation than Diani predicted.

The three accounts studied displayed a remarkable degree of connection between the offline and online. In other words, the three campaigns' accounts were not isolated or purely virtual networks or practices; an important quality given all three campaigns were centred on 'real world' actions. Plenty of the links between the campaign organisation and organisers, on one hand, and organisations and individuals (as followers on Twitter), on the other, it would be assumed were purely virtual over Twitter given these accounts were run as national or international social networks and the physical distances involved. However, offline aspects of the campaigns were extensively integrated into the campaigns' use of Twitter to the point where the use of these accounts was primarily to support offline activities.

Earth Hour and 10:10 showed the greatest connection between the offline and online to the point that their accounts almost aimed just to support the offline aspects of their campaigns. Earth Hour's campaign, as an event with a strong visual element, lent itself well to Twitter and web-based communication. Earth Hour's Twitter account became a way for

anyone online to share (visually) their own or others' Earth Hour experiences from locations around the World.

10:10's connection was through communication and assistance. These activities shaped 10:10's account into a sort of resource for followers to help them make the physical lifestyle changes that would reduce their carbon emissions by 10% in a year. While this may have involved online discussion and resources or information the effects would have been realised offline in the form of lifestyle changes such as cycling or walking over using vehicles or having your home insulated.

350 displayed the least connection to the offline as its focus was less on offline action (for instance those planning to participate in its upcoming 10/10/10 day of action campaign) than on generally communicating with followers, promoting its 10/10/10 campaign and online actions such as signing up, as well as highlighting climate change and environmental problems.

For all three campaigns, mobilisation using Twitter occurred primarily online through efforts to spread the word electronically, particularly with Earth Hour and its embrace of social media and social network services to spread the word and promote the campaign. Earth Hour and 350 featured Tweets offering resources for mobilising with social media and 350 even referred to the apparent success on one occasion of social media and mobilisation.

These efforts at online mobilisation and the use of Twitter alongside real-world mobilisation and campaign action reflect the complementary role Diani (2000: 397) argued the internet would have to traditional forms of mobilisation. Diani also claimed that it would not lead to the creation of new 'virtual' ties able to support sustained participation. 'Movement

organisations based on participation... [require] considerable levels of trust and collective identification usually developed in face-to-face interaction' so 'virtual' or online ties would simply be extensions of real-world ties, essentially 'reinforced by electronic communication' (2000: 394, 397).

Diani's use of the term 'virtual' in that study, at least in regards to participatory movement organisations, was to imply a corresponding lack of real-world ties on the part of an actor to the movement organisation. Given that many of the followers on these campaigns' accounts are likely to have been separated from the organisation by national or international distances, and thus have been largely reliant on online ties to the campaign, 'virtual' or online ties are perhaps not as ineffective for building and sustaining participation as Diani suggests. While all three campaigns were based on participation, given the low-cost of the proscribed activities it could be argued that the direct and, in 10:10's case, somewhat personal online ties identified on these Twitter accounts evidence the effectiveness of these online ties in building and sustaining participation in these campaigns. Efforts on the part of organisers to consolidate and maintain these online ties with Twitter suggest they shared a similar view.

Indeed, perhaps, as their websites suggest, it was the intention of these campaigns to focus their campaigns on simple, low cost (time and/or money) actions so that even those largely or purely online ties enabled by the internet and Twitter (whatever their strength or directness) could encourage and sustain participation on a global scale. Such an intention would have led the campaigns to use Twitter as part of their internet-based efforts to mobilise globally through a mix of purely or largely online ties and online ties which reinforced pre-existing offline ties, rather than purely the latter, as Diani (2000: 394)

suggested would be the case for participant mobilisation. Earth Hour with its symbolic action and 350 with its efforts to grow its campaign (and with 10/10/10 for people to organise an environmental activity however simple) had the least personally costly or demanding actions and so it is conceivable that any largely virtual ties they fostered on Twitter could have led to individuals participating in the campaigns.

Identifying the role of online ties in mobilisation, just how successful online mobilisation was and how it figured in mobilisation efforts for each campaign requires further research. However, evidence from these three campaigns and their use of Twitter suggests that the online ties and networks of which Twitter was a part represented in their own right networks of the type that della Porta and Diani (1999: 112) claim 'enable activists to be recruited and are often based on preceding forms of participation', by facilitating and sustaining participation in low-cost, moderate and symbolic action online and (predominantly) offline that is at once individual or local in nature but collective, even global, in context.

The relative low cost, in terms of time and money, and moderate nature of participation in the campaign actions observed in this study suggest attempts to circumvent the free rider problem. Identified by Mancur Olson (1965), the problem arises from the fact that any rational individual seeking to maximise their gains will decide not to participate in collective action for the common good because in so doing they will not incur the costs or risks of participation but still benefit from the results.

By designing campaigns whose primary forms of action are symbolic, low-risk, unique actions or moderate lifestyle changes these three campaigns reduce the disincentives to join and participate in the campaigns. This appears necessary, though, in the case of 10:10

where lifestyle changes may cost more in time and money than non-participation, considering that the personal gains of participation in this campaign, aimed at tackling climate change, were small and not guaranteed (for instance eventual implementation of effective government policy on climate change) and were clearly outweighed by the costs.

According to Mark Granovetter (2005: 34) 'dense and cohesive' social networks can overcome the free-rider problem by reinforcing norms of participation and trust although it follows that the larger the network the less dense it is. Although Diani (2000: 394, 397) argued that 'purely virtual ties' are unlikely to create 'sustained collective action' if they are not based on offline, face-to-face interaction, the campaigns studied here and their efforts at consolidating ties with participants via Twitter (particularly 10:10's, discussed above) point towards the possibility of online ties and networks which are able to reinforce the values of participation, individual action and collective identity necessary to encourage participation in moderate campaign actions with little personal gain.

5.5 The internet, social networks and SMOs

The concepts of online and offline are complex ones especially when used to describe structures as intrinsic and omnipresent as social networks and their role in social movements. Diani's (2000: 397) use of the term 'virtual' is perhaps slightly outdated, a throwback to a view of the internet as new and distinct world or space with entirely unique and contained forms of social relation. By defining virtual ties as those enabled by the internet and not based on offline or real-world ties to a movement organisation – at least in terms of SMOs mobilising participatory resources – Diani glosses over the complexity of ties that occur on the internet implying a type of isolation from lived experience of society that

is less and less apparent today as the internet and computer-mediated communication become increasingly integrated into our daily lives. Even the terms 'offline' and 'online' have trouble capturing how integrated communication over the internet was in this study and how interrelated interaction on the internet is with interaction in our physical or face-to-face experiences. For instance, ties to these campaigns on Twitter could have been complimented by indirect ones through traditional media and direct or indirect ties to participants or organisers in their country or locations which would have affected their decision to participate.

Jeroen van Laer and Peter van Aelst (2009: 233), through their work on the use of the internet in mobilisation, arrive at the useful distinction between 'Internet-based' and 'Internet-supported' to describe forms of collective action which involve the internet. These concepts strike closer to heart of the use of the internet in collective action because they recognise that the internet is used by actors and, as such, is intimately related to those actors' contexts and characteristics. della Porta & Mosca's (2009) findings on the influence of contextual and organisational characteristics on website design suggest something similar.

As Castells (2001: 131) said the internet 'is a resource which extends and enhances individuals' [and arguably organisations'] ability to select, form and maintain those social ties they desire'. Using Diani's (2003: 6) definition of networks, if individuals are nodes then the internet is one means of creating a tie to that node. Almost constant connection through technology such as smart phones and applications based on social networking services, and the increasing ubiquity of the internet are extending ties enabled by the internet into our daily lives. This in turn is causing computer-mediated communication to

become a more normal and regular form of communication and interaction. Thus online ties lose their virtuality as they are increasingly related to and informed by our daily experiences, interactions and real-world networks and vice versa. Ties to an SMO could, therefore, be largely or entirely online, in Diani's sense of lacking a basis in direct offline ties to the relevant SMO, yet still have strong connections to the offline or real-world, conceivably promoting identification with and ties to a group, organisation or movement even if it is a largely imagined one separated by great physical and social distances.

This blurring of the boundaries between online and offline is an aspect of Castells' 'network society' with its dominant paradigm of informationalism and speaks to Melucci's working terms: 'complex society' and 'information society', discussed in Chapter 2. Contemporary society, indeed everyday life and ways of living and relating are increasingly defined by technological networks, enabled by the internet, through which information is shared instantaneously, shaping the ways we communicate and form and maintain ties. The online is becoming part of the offline but indelibly changing it.

Using the internet SMOs are capitalising on these changes, adapting the ways they mobilise to the increasingly integrated and networked nature of society, taking advantage of the new opportunities it presents for SMOs to extend their mobilisation efforts to larger numbers of people, consolidate existing ties and coordinate larger, even global, campaigns. As it was the intention of this study to illustrate, by using Twitter to engage, communicate and interact with individuals SMOs are finding ways to use the networking potential of social media to mobilise people around the world to take part in campaigns aimed at tackling climate change.

Chapter 6 – Conclusion

The intention of this thesis was to explore how SMOs were using Twitter as part of their campaigns to mobilise people globally to act on climate change. Previous research on the ways SMOs' use their websites (della Porta & Mosca 2009; van Aelst & Walgrave 2004) has hinted at the similar potential of social media for SMOs, however, very little research has been performed on this possibility.

The three campaigns displayed considerably differing strategies. 10:10's account focused on affirming and supporting individual action. This was achieved through open communication and providing followers with helpful resources and support in a way that encouraged them to reach their 10% target and sustain the changes and reductions they made. 350 used its account to both inform and communicate with its followers in order to motivate and inspire them to take part in the campaign and build the feeling of a collective struggle, a global movement. This was pursued by both one-way communication/dissemination of information, and two-way communication and engagement.

Earth Hour used its account to build anticipation and momentum for the annual culmination of its campaign – the day of Earth Hour – and to involve its followers online in the campaign and the event. It made the most effort of the three campaigns to engage and involve followers online in the campaign, primarily through extensive use of social media and social networking services to include followers online in coverage of the event through the sharing of user-generated content such as photos.

Since the important differences between these campaigns were largely selected for illustrative purposes rather than representativity or testing of variables it is difficult to

produce any significant generalisation from them. However, it was not the intention of this study to argue that the practices observed were representative of or ideals of climate change SMOs' use of Twitter or social media to mobilise. Rather, it was to explore these practices through a comparison of the similarities and difference between a number of interesting cases in order to understand the potential of these technologies for mobilisation.

It is safe to say, though, that there is some promise for the use of social media or more particularly social networking services like Twitter as an effective aspect of an SMO's mobilisation efforts on issues like climate change. While this study found support for Diani's (2000) contention that the internet would complement existing ties and mobilisation efforts and not create any new 'virtual' movement actors it did suggest that online ties (considered as either purely online (virtual) or simply internet-enabled (reflecting an existing offline tie)) may be more effective in sustaining participation than Diani thought.

The online ties and networks observed on these three campaigns' Twitter accounts and their use in online and offline forms of participation show that SMOs are embracing the communication and (social and technological) networking potential of social media and SNS and using them in innovative ways. Overall, these efforts complimented offline campaign action and traditional forms of mobilisation around climate change. However, as discussed, the concept of online ties and networks is a complex one and is becoming even less well defined as the boundaries between online and offline blur.

A picture needs to be painted of how closely related online and offline forms of participation and communication are (or are becoming) in regards to participants and SMOs. In other words, how online ties and networks effectively extend into the offline or real-world of people's daily lives. For instance, do online actions such as contributing photos of a

campaign event – seen in this study – make it more likely that participants will take part in offline action? Do individuals who “come” to, join and communicate with a campaign online, rather than through offline ties, actually participate and take part in action, individual or collective? With the increasing social integration of computer-mediated communication such a picture will hopefully emerge from the literature as similar studies are performed.

Further research might look at identifying the influence of individuals’ online ties to and communication with movement organisation in their decision to participate in such low-cost forms of collective action as were studied here. McAdam’s (1986) study on the influence of individuals’ personal ties and values on their decision to participate in the 1964 Freedom Summer project, adapted to a first-hand study of online ties would be a starting point. Comparisons between Twitter and other social media services, the internet and traditional forms of movement communication as well as quantitative approaches would also be valuable in ascertaining Twitter’s effectiveness in creating and maintaining ties useful to social movements and movement organisations mobilisation efforts.

Perhaps the most indelible effects of the internet and computer-mediated communication will be in the way individuals experience communication in their daily lives by simply increasing the scale of our ability to communicate across time and space. As it becomes more and more integrated into our daily practice of communication, though, it offers the potential for SMOs to make campaigns more accessible through more dynamic forms of communication which compliment more attractive forms of participation. The trick for SMOs, it would appear then, is to design campaigns and strategies for mobilisation which not only take advantage of computer-mediated communication and social media but incorporate them into the design. SMOs must be careful, though, to strike a balance

between accessible collective action and effective collective action. This study has shown that some are already heading down this path.

10:10 presented the most interesting case in this respect. It was effectively a campaign of global collective action performed individually and locally. It did not involve a collective action event, like a protest for instance, but an ongoing form of collective action through a lived challenge to dominant social codes and practices concerning climate change; thus supporting Melucci's (1996) ideas. This focus on lifestyle habits and changes was complemented by online communication and the establishment of online ties between the campaign and participants which supported participants' efforts.

10:10's work to consolidate online ties with followers on Twitter suggests that organisers saw these ties as able to sustain individuals' participation in the campaign over a year. So too the low-cost online participation and symbolic offline action of Earth Hour's campaign may well have been sustained by the online ties present on Twitter, judging by Earth Hour's extensive efforts to these ends. This combination of the pursuit of establishing and consolidating online ties and networks on Twitter and campaigns designed around relatively low-cost forms of participation suggest that these campaigns were effectively using Twitter to create online networks capable of reinforcing the necessary values of participation and collectivity for encouraging and sustaining participation in collective action. These campaigns therefore may well represent growing forms of civic and political participation in the network society envisaged by Castells (2000), which address the decline in traditional politics by encouraging individuals to take action themselves, whether online or offline, as part of large scale campaigns connected and enabled by the internet. Such individual action is likely encouraged, sustained and rendered effective by means of the online ties and

networks these global campaigns provide using forms of computer-mediated communication like Twitter.

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