

**Participation Space Studies:  
a socio-technical exploration of activist and  
community groups' use of online and offline spaces  
to support their work**

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## Abstract

*Participation Space Studies* explore eParticipation in the day-to-day activities of local, citizen-led groups, working to improve their communities. The focus is the relationship between activities and contexts. The concept of a *participation space* is introduced in order to reify online and offline contexts where people participate in democracy. Participation spaces include websites, blogs, email, social media presences, paper media, and physical spaces. They are understood as sociotechnical systems: assemblages of heterogeneous elements, with relevant histories and trajectories of development and use. This approach enables the parallel study of diverse spaces, on and offline. Participation spaces are investigated within three case studies, centred on interviews and participant observation. Each case concerns a community or activist group, in Scotland. The participation spaces are then modelled using a Socio-Technical Interaction Network (STIN) framework (Kling, McKim and King, 2003).

The participation space concept effectively supports the parallel investigation of the diverse social and technical contexts of grassroots democracy and the relationship between the case-study groups and the technologies they use to support their work. Participants' democratic participation is supported by online technologies, especially email, and they create online communities and networks around their goals. The studies illustrate the mutual shaping relationship between technology and democracy. Participants' choice of technologies can be understood in spatial terms: boundaries, inhabitants, access, ownership, and cost. Participation spaces and infrastructures are used together and shared with other groups. Non-public online spaces, such as Facebook groups, are vital contexts for eParticipation; further, the majority of participants' work is non-public, on and offline. It is informational, potentially invisible, work that supports public outputs. The groups involve people and influence events through emotional and symbolic impact, as well as rational argument. Images are powerful vehicles for this and digital images become an increasingly evident and important feature of participation spaces throughout the consecutively conducted case studies. Collaboration of diverse people via social media indicates that these spaces could be understood as boundary objects (Star and Griesemer, 1989). The Participation Space Studies draw from and contribute to eParticipation, social informatics, mediation, social shaping studies, and ethnographic studies of Internet use.

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# 1 Introduction

## 1.1 Context and aim

At the beginning of this research, in 2012, established democracies were experiencing falling turnout in elections and public dissatisfaction with politicians and government (Dalton, 2004; McLaverty, 2010; Millard et al, 2009). In the UK, constitutional arrangements seemed increasingly unstable as political inequality widened and corporate power threatened democratic decision-making (Wilks-Heeg, Blick and Crone, 2012). EParticipation researchers investigated the use and potential role of Internet technologies to increase people's effective involvement in democracy (Aichholzer and Allhutter, 2011; Macintosh, Malina and Farrell, 2002; Medaglia, 2011; Rose and Sanford, 2007; Sæbø, Rose and Flak 2008). However, increased use of the Internet for democracy could also deepen democratic divides through digital divides, as the demographics with the lowest participation rates tended to match the demographics with the lowest levels of Internet access and skills (Best and Krueger, 2005; Fountain, 2001). The trajectory of eParticipation moved between optimism and pessimism, as new technologies, from online communities to social media, offered new opportunities, but studies found little evidence of increased participation or democratic renewal (Chadwick, 2009; Loader and Mercea, 2012; Wright, 2011; 2012).

This research provides evidence of contemporary participation in democracy, supported by Internet technologies, in citizen-led contexts. The aim was to build an understanding of eParticipation by exploring the day to day activities of people working to improve their communities. Citizen-led initiatives provide good opportunities to explore democratic behaviour, as people have more control over their actions than in top-down initiatives (Cornwall, 2000). The research focused on the relationship between activities and contexts in citizen-led participation. These contexts are described as *participation spaces*.

The aims are captured in three high-level research questions:

- What spaces are considered, used or created for participation, by people trying to improve their local communities?
- What characteristics of these spaces influence their use as participation spaces?
- What characteristics of people and groups influence their choices and uses of participation spaces?

## 1.2 Approach: studying participation spaces

*Participation spaces* are the central innovative concept of this research. The concept is introduced to reify *online and offline contexts where people participate in democracy*, so that diverse, individual spaces may be studied and analysed in parallel. Participation spaces are defined by the activities which take place in them, specifically participation in democracy. In this research, this includes all the activities that people undertake to achieve the aims of their group (to improve their communities and local environments). These activities primarily take the form of communication. Where groups take direct action, such as clearing woodland and building paths, this is organised through communication in participation spaces.

Online participation spaces include websites, blogs, social media presences, and email. Offline participation spaces include physical spaces where people meet, and paper media. As the defining characteristic is participation, participation spaces may be specific or abstracted to focus on their use in certain situations. Specific participation spaces exist beyond the research; abstracted spaces combine existing spaces with recurring situations, such as organised meetings. Given the diversity of spaces meeting these criteria, the boundaries of a participation space may be physical, virtual, social, and/or temporal; they are likely to be mutable, permeable and subjective.

The participation space concept realises ontological assumptions about participation and technology within the research. Participation is identified according to people's activities to further the aims of the group, rather than the activities traditionally sanctioned by institutional democracy or typologies of participation (e.g. Arnstein, 1969; Fung, 2006). In technical terms, participation spaces are sociotechnical systems: assemblages of heterogeneous elements, with relevant histories and trajectories of development and use. Each participation space is a composite of people, artefacts, processes and expectations of behaviour. The artefacts may include digital technologies, such as the devices, software and infrastructure that process content and enable interaction over the Internet. Artefacts may be non-digital objects such as walls, doors, tables, and chairs. People are the source of artefacts and bring them together to create participation spaces. As participation spaces are defined by activities within them, people are essential actors in terms of *doing* the activities: communicating, meeting, organising and creating content, as well as maintaining the social

and physical structures that define the space.

Methodologically, the participation spaces were the fields for in situ observation, as well as the subjects of interviews and the unit of analysis. The concept supported the multi-sited and multi-modal investigation of both online and offline spaces, sharing data gathering and analysis methods, as well as relevant theory. This is aligned to contemporary Internet use, where online and offline contexts are integrated (Hine, 2015; Postill and Pink, 2012).

Participation spaces were identified and investigated within three case studies. Each case concerned a community or activist group, in Scotland: people working to influence their local council and environment. The methodology, influenced by ethnography, emphasised in situ investigation and understanding both participation and technology according to the activities, values, and motivations of the people involved.

The participation spaces were modelled, using the data collected, as Socio-Technical Interaction Networks (STINs), based on Kling, McKim and King's framework (2003). Using the metaphor of a network, the STIN framework captures the human and non-human factors that create and constitute each space. The framework further draws attention to exclusions, wider influences, and the trajectories of implementation, including historic dimensions. Participation spaces are understood as sociotechnical systems; the STIN approach is designed to analyse sociotechnical systems. Nineteen models of participation spaces were created, consisting of structured descriptions and diagrams. These STIN models of participation spaces supported analysis in terms of eParticipation, social informatics, and sociotechnical and social theories with spatial themes. Throughout this thesis, this research is referred to as "the participation spaces research" or "the Participation Space Studies" to reflect this central concept.

### **1.3 Findings and contributions**

The participation space concept successfully supported the research, through all phases. This innovative concept is a useful contribution to eParticipation research. The characteristics of a participation space found to influence its use were the space's boundaries, inhabitants, access, and cost. Participation spaces were used together and shared with other groups. However, the spatial metaphor was less apt for certain spaces which could be described more appropriately as participation infrastructures.

The investigation of participation spaces across three case-study groups revealed that Internet technologies, especially email, were integral to each group's participation, illustrating a mutual shaping relationship between technology and democracy. Most grassroots participation was non-public, on and offline. This non-public participation included extensive learning and preparation, supporting a smaller amount of visible public action. Deliberation primarily took the form of non-public discussion and preparation, rather than public rhetoric.

The three case studies were conducted serially. During this time period, it became increasingly common for participants to own phones with cameras, especially smart phones, and digital photography became an increasingly evident and important feature of participation spaces. Digital images provided practical and influential vehicles for emotion and information, sometimes effective beyond words. Social media posts increasingly centred on images. Amongst all the participation spaces, social media spaces were particularly effective in supporting collaboration between people from diverse social groups. These infrastructures, often fetishised as threats or boons to society (Fuchs, 2012; Gerbaudo, 2012), could be understood as boundary objects (Star and Griesemer, 1989) and play strong roles in democracy.

This implementation of the STIN strategy contributes to social informatics by adapting the approach to model families of STINs, consisting of the participation spaces used by each case-study group. Diagrams and timelines supported this, through modelling, analysis, and collaboration phases.

#### **1.4 Structure of the thesis**

The thesis follows a traditional sequence. The *Literature review* presents the context of the research in terms of contemporary democracy and participation. The understandings of participation that underpin the research are unpacked. An overview of eParticipation research presents the history, concerns, and challenges of this field. A sociotechnical section introduces concepts and approaches underlying the understanding and study of information communication technologies (ICTs) in this research. The participation spaces concept also responds to theories which understand behaviour through spatial characteristics and metaphors. These are introduced within the themes of visibility and invisibility, boundaries

and infrastructures. The concerns of the literature review are drawn together in the Socio-Technical Interaction Network (STIN) approach, used to model the participation spaces (Kling, McKim and King, 2003).<sup>1</sup>

The *Methodology* chapter describes the methodological approach, followed by an overview of its implementation. Three case-study chapters present the three groups' use of participation spaces, drawing on the STIN models of each space. Insights across the case studies are drawn together in the findings and analysis chapter. The findings outlined above (p20) are described in more detail, and analysed according to the ideas discussed in the literature review. The methodological approach, centred on the participation spaces concept, is reviewed in chapter 8, to assess its suitability and establish the stability of the findings. The conclusions and reflections (chapter 9) restate the contributions of the Participation Space Studies and look forward, suggesting future research and implications for practice.

Following this introduction, the literature review places this research within the currents of interest in the relationships between people, technology, and democracy. The ideas and assumptions around the Participation Space Studies are identified and discussed, introducing theories and concerns that inform the implementation and elucidate the findings. The literature review identifies the research spaces that inform and benefit from the contributions of this thesis.

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<sup>1</sup> While the spelling "sociotechnical" is favoured throughout this thesis, Kling, McKim and King's spelling is retained within the Socio-Technical Interaction Network.

## 2 Literature review

### 2.1 Participation spaces

The participation spaces research responds to a democratic context characterised by concerns about the gulf between citizens and political institutions. The research focuses on the democratic activities of three case-study groups trying to improve their local communities and environments. The concept of a *participation space* is introduced, in order to investigate the relationship between activities and contexts in democratic participation. The *participation space* is a real, virtual and/or abstracted space in which the democratic activities of citizens – participation – are observed. Participation spaces may be online or offline contexts. These tend to be entwined (Hine, 2015). Berners-Lee envisaged the World Wide Web becoming seamlessly integrated into everyday life (Allen, 2013, p7): “so generally used that it became a realistic mirror (or in fact the primary embodiment) of the ways in which we work and play and socialize” (Berners-Lee, 1998, online). For many people this vision is increasingly realised, so that focusing on the Internet as a separate, mediated reality, seems old-fashioned (Hine, 2015; Miller and Slater, 2000). Hine experiences the Internet as “embedded, embodied and everyday” (2015, p13) and advises Internet researchers to craft fields or objects of study to suit their strategic objectives: “carve out a researchable object from the mass of temporal and spatial complexity and the interweaving social and cultural processes that create the Internet and embed it in everyday life” (2015, p13). The participation space is this *object* within this thesis.

*Space* is used to describe a part of the Internet or offline world, following the strong tradition of using space and place metaphors to understand Internet phenomena. Arora compares online spaces to public parks and provides an overview of the use of spatial metaphors to understand the Internet (2014). Arora’s case studies show that many concerns about Internet spaces, especially social media, closely resemble those encountered by the developers and managers of public parks. For example, people have appropriated parks for political action and park managers try to balance freedom of expression with other park users’ expectations of leisure space. Offline and online there are concerns about privatised spaces: Facebook is often described as a “walled garden” (Arora, 2014, ch. 4). Safety and privacy need to be balanced with freedom, control, and exclusion.

Writing about online collaborative environments, Harrison and Dourish (1996) suggest that *place* is a more suitable term than space: whereas space describes structure, place is identified as a space that has been appropriated by people. Harrison and Dourish link place to Goffman's regions (Goffman, 1971): behaviour is framed by the place. However, this thesis follows Leszczynski's conception (2015), in which *both* space and place are material and social realities, constantly recreated through sociotechnical practices (cf. Kitchin and Dodge, 2011). While, following Harrison and Dourish, the manifestation and influence of material, social and technical elements may be stronger in place than space, it is more useful here to acknowledge their shared characteristics than to emphasise this difference, because the goal is to identify and consider all these characteristics. There is a wealth of computing literature about space in terms of interface design, presence, and computer-mediated communication (CMC). However, due to their more detailed focus on human-computer interaction, these fields are beyond the scope of this literature review.

Participation spaces are diverse contexts, offline and online, reflecting a broad understanding of participation, in terms of both location and activities. Participation is defined and contextualised in terms of current ideas about participation and democracy (p25, below). The role of the Internet in democracy and participation, theorised and observed, is central to this investigation. This is supported by an overview of eParticipation research (p39). EParticipation projects and literature have historically attracted accusations of technological determinism. This review describes sociotechnical responses to technological determinism, including social informatics, social shaping and mediation. Aligned to these frameworks, participation spaces are understood in terms of sociotechnical systems or assemblages: they are collections of heterogeneous elements, including people, technologies, activities and processes, loosely bounded into physical or virtual spaces. The potential contents, contexts, and boundaries of participation spaces are explored through relevant concepts and approaches. In particular, while boundaries may be subjective, porous or indeterminate, they are still crucial characteristics of each space, influencing people's perceptions and behaviour. This introduces the final theme in this review: *visibility and invisibility*. The chapter ends by describing the analytic framework used to model the participation spaces: the Socio-Technical Interaction Network (STIN) (Kling, McKim and King, 2003).



## 2.2 Democratic context: changing democratic spaces

### 2.2.1 Negative perceptions of institutional democracy

When this research was conceived, in 2011, the democratic context of the UK included several causes for concern. Wilks-Heeg, Blick and Crone's *Democratic Audit* (2012) assessed the UK's constitutional arrangements as increasingly unstable: public faith in democratic institutions was decaying; political inequality was widening; and corporate power was threatening to undermine democratic decision-making. Turnout in elections, membership of political parties and a variety of other measures all pointed to a waning of democratic engagement. Wilks-Heeg et al noticed similar trends in the established democracies of industrial nations, though they noted differences between Westminster democracies, more consensual democracies and the social democracies of Nordic countries (Wilks-Heeg, 2012). (Associated audits and surveys are summarised in *Table 1* on p26). Concerns about UK democracy are also raised in the Hansard Society's *Ninth and Tenth Audits of Political Engagement* (Fox, Korris and Palmer, 2012; Fox and Korris, 2013).<sup>2</sup> These are based on citizens' responses to surveys in 2011 and 2012, respectively. The Hansard Society's reports record low levels (i.e. under 50%) of interest in politics and low levels of knowledge about politics, with less than half their respondents intending to vote in a general election. Only a quarter of respondents were satisfied with the UK's system of government or felt they could influence national decisions. Levels of participation beyond voting were low: in 2011, only 35% of survey participants claimed to have discussed politics; 13% to have presented their views to an elected representative; 10% to have boycotted products; 27% to have signed a petition. The data presented in the 10<sup>th</sup> Audit records a further fall to 17% signing a petition (Fox and Korris, 2013). The 9<sup>th</sup> and 10<sup>th</sup> Audit figures record reductions in participation from previous years: e.g. in 2010, 40% reported signing a petition and 19% reported boycotting products (Fox, Korris and Palmer, 2012). The authors describe the 10<sup>th</sup> Audit figures as "gloomy" (Fox and Korris, 2013, p9).

The British Social Attitudes Surveys (Park, Clery, Curtice, Phillips and Utting, 2012; Park, Bryson, Clery, Curtice and Phillips, 2013) found that only 22% of their respondents (2012), falling to 18% in 2013, trusted the UK government. This is similar to the results of the Scottish Social Attitudes Surveys for 2011 and 2013 (Ormston and Reid, 2012; Reid,

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<sup>2</sup> The Hansard Society Audit is also one of the sources for Wilks-Heege et al's *Democratic Audit*.

Waterton and Wild, 2014), where 18% of respondents in 2011 and 26% in 2013 trusted the UK government to act in Scotland’s interests; while 71% in 2011 and 59% in 2013 trusted the Scottish Government to act this way<sup>3</sup>. Survey results across the European Union, from the Eurobarometer report (TNS Opinion and Social, 2012, p37), reflect the negative UK picture: 27% of Europeans trust their Government and 28% trust their Parliament. Ostling describes a “decline in confidence in traditional structures of policy formation and low voter turnout” across the EU (2010, p1). Widening the geographical scope further, Dalton reviews opinion data from the advanced industrial democracies and finds erosion of public support for politicians, parties and institutions across the OECD (2004).

**Table 1: Figures from democratic engagement surveys**

Data collection period	Area covered	Results re democratic attitudes and activities	Study
2011	Scotland	18% trust the UK government to act in Scotland’s interests most of the time; 71% trust the Scottish government to act in Scotland’s interests most of the time.	Scottish Social Attitudes Survey (Ormston and Reid, 2012)
2013	Scotland	26% trust the UK government to act in Scotland’s interests most of the time; 59% trust the Scottish government to act in Scotland’s interests most of the time.	Scottish Social Attitudes Survey (Reid, Waterton and Wild, 2014)
2011	UK	22% trust the government to put the needs of the nation first.	29 <sup>th</sup> British Social Attitudes Survey (Park, Clery, Curtice, Phillips and Utting, 2012)
2012	UK	18% trust the government to put the needs of the nation first.	30 <sup>th</sup> British Social Attitudes Survey (Park, Bryson, Clery, Curtice and Phillips, 2013)
2012	EU	27% of Europeans trust their Government; 28% trust their Parliament.	Eurobarometer (TNS Opinion and Social, 2012)
2011	UK	42% interested in politics; 15% claim to "know nothing" about politics; 48% say they would vote in a general election; 24% present system of governing UK works ok; 24% feel they have some influence in local decisions; 12% feel they have some influence in UK-wide decisions;	Hansard Society’s 9 <sup>th</sup> Audit of Political Engagement (Fox, Korris and Palmer, 2012)

<sup>3</sup> “Previous evidence from both the Scottish and British Social Attitudes surveys have shown that public views of government are often more positive in election years – an ‘election bounce’.” (Ormston and Reid, 2012: p.i) Further, the authors note “a long-standing pattern showing that the Scottish public tend to ‘blame’ the UK Government when they believe standards are falling but ‘credit’ the Scottish Government when they think standards are increasing” (2012, piii)

		35% have discussed politics or political news; 27% have signed a petition; 2% have taken an active part in a political campaign.	
2012	UK	42% interested in politics; 16% claim to "know nothing" about politics; 41% say they would vote in a general election; 27% present system of governing UK works ok; 26% feel they have some influence in local decisions; 16% feel they have some influence in UK-wide decisions; 8% have signed a paper petition; 9% have signed an e-petition; 2% have taken an active part in a political campaign.	Hansard Society's 10 <sup>th</sup> Audit of Political Engagement (Fox and Korris, 2013)
2002 - 2012	UK	UK's constitutional arrangements increasingly unstable; public faith in democratic institutions decaying; political inequality widening rapidly; corporate power threatening to undermine democratic decision-making. Falling turnout in elections and membership of political parties.	Fourth Audit of UK Democracy (Wilks-Heeg, Blick and Crone, 2012)

These reports illustrate what has been described as a *democratic deficit*<sup>4</sup>, characterised by low levels of public participation in democracy, low turnout in elections, and public dissatisfaction with politicians (Lamb, Berntsen and Kueppers, 2004; Macintosh, Malina and Farrell, 2002; McLaverty, 2010; Millard et al, 2009).

However, the same publics favour democratic *ideals*. Dalton's review reveals support for democratic values increasing in OECD countries (2004). Dalton suggests that increased *expectations* of democracy fuel demands for reform, making governing more difficult in the meantime. Smith and Dalakiouridou (2009) suggest that 21<sup>st</sup> century states aspire to become participative to share responsibility with partners from all sectors, due to the complex contexts of contemporary governance. Coffé and Michels note that citizens' dissatisfaction with representative democracy does not necessarily extend to a desire to become more involved in political decision-making (2014). However, based on data from the

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<sup>4</sup> The phrase arose in the European Context in the 1970's, used by the Young European Federalists, in their 1977 manifesto, and by David Marquand in 1979 referring to the European Economic Community. In the European context, the concept is "invoked principally in the argument that the European Union and its various bodies suffer from a lack of democracy and seem inaccessible to the ordinary citizen because their method of operating is so complex" (Europa, 2012). In this report it used more generally to refer to the relationship and interactions between citizens and democratic institutions. See Smith and Dalakiouridou (2009) for more analysis of its application to the contemporary EU context.

Dutch internet panel survey (LISS) in 2011, Coffé and Michels found that citizens with more confidence their own political efficacy were more supportive of representative democracy (2014).

## 2.2.2 Changing patterns of participation

Contemporary writers concerned with participation and eParticipation discuss democratic practice in terms of change and expansion, beyond the traditional roles and relations of government and citizens (e.g. Bennett, 2008; Blaug, 2002; Carmen, 2010; Carpentier, 2011; Carpentier and Dahlgren, 2011; Dahlgren, 2011; Dalton, 2004; Kim and Kim, 2008; McLaverty, 2010; Millard et al, 2009; Miraftab, 2004; Ostling, 2010; Wright, 2011; Wright, 2012). Miraftab provides a feminist account of the expansion of democratic space in the twentieth century, to explicitly include the domestic experiences of women: an expansion in terms of actors, structures, topics, and practices (2004). Miraftab is concerned that, in the twenty-first century, this expansion is not inclusive: democratic space needs to be available for potentially excluded groups. Dalton observes that, while trust in political institutions is falling, enthusiasm for democracy, as an ideal or set of values, is growing (Dalton, 2004; McLaverty, 2010). Carpentier and Dahlgren warn that restricting our ideas about democracy to institutionalised politics, neglects the way “the logics of power and participation work in every societal sphere” (Carpentier and Dahlgren, 2011, p8). For Kim and Kim (2008) and Wright (2012), most of the everyday politics at the heart of our democracies takes place outside of formal, traditional definitions of *the political* (cf. Carpentier, 2011, p22). This informs the participation space concept: participation spaces are not restricted to institutional spaces; participation activities are not restricted to voting or contacting elected representatives. In this section, developing concepts of citizenship and participation illustrate this broadening of scope.

Bennett characterises the political outlook of contemporary young people through two contrasting paradigms of citizenship (2008, p14). *Dutiful citizens* conceive of democracy narrowly, in terms of institutions, and participation in terms of a small number of traditional activities, primarily voting. *Actualizing citizens*<sup>5</sup> focus on their own participation, e.g. through life-style politics and digital networks, rather than the actions of traditional media and politicians. These conceptualisations of citizenship are accompanied by related

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<sup>5</sup> Bennett also uses the term *Self-Actualizing Citizen*

experiences of engagement. Actualising citizens are empowered by the emphasis on their own agency; dutiful citizens are more likely to be passive and disengaged, blaming the government and media for the decline in the trustworthiness and quality of democratic institutions and contemporary political discourse.

Bennett aligns his actualising citizen paradigm with digital media. Individual and group identities can be built and projected in collective digital spaces, like games, online fora and networks: these spaces include tools which support the expression of identity. The actualising citizen paradigm of outlook and efficacy is relevant beyond young demographics (Bennett and Segerberg, 2011; della Porta, 2011). This set of ideas reflects the observations of New Social Movement theorists that collective identity, networks, values, and lifestyles are increasingly central to movements seeking social change and trying to alter the balance of power (Hara and Huang, 2011<sup>6</sup>).

Bennett's ideas reflect Blaug's dual conception of *incumbent vs. critical* democracy (2002, p105). *Incumbent democracy* looks to representation and institutions; its adherents suggest improving these in order to improve democracy. *Critical democracy* derives its legitimacy through diverse and voluntary participation and distrusts authority (Blaug, 2002, p106). It is a "response to suffering" (p105) and models itself on idealised notions of the forum, such as deliberation, development and equality, including people normally excluded from the political process. Its aspirations resemble Habermas' public sphere (Habermas, 1964; 1989).

Pattie, Seyd and Whiteley (2003; 2004) investigated people's experiences of democratic engagement, centred on activism and participation, rather than on reactions to democratic institutions. Using data from the *Citizen Audit of Great Britain, 2000-2001*<sup>7</sup>, their analysis indicates that people with different resources, in terms of income and education, favour different activities. Older, richer, more educated people favour *individualistic* activities, which include ethical consumption, donations, signing petitions, fundraising, voting in local elections, and displaying campaign posters or badges. Less well-off people favour *contact*

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<sup>6</sup> Hara and Huang discuss new social movements in the context of online social movements. The social movement theorists they reference are Manuel Castells and Mario Diani, who "see *collective identity, networks, and life values as being crucial to contemporary movements. New social movements differ from traditional social movements because they are less concerned with economic issues and emphasize instead group or collective identity, values and lifestyles*" (Hara and Huang, 2011, p491).

<sup>7</sup> The Citizen Audit of Great Britain used a large scale survey and interviews with citizens to investigate citizenship and participation. While the data is a little old, the related reports are influential.

*activism*, e.g. contacting public officials, politicians or the media. Young people and highly educated people favour *group activism*, such as meetings and demonstrations. In terms of free time, busy people were as likely to engage as people with more spare time. They find that a wide range of voluntary activities encourage civic activism, and conclude: “To encourage civic participation, therefore, encourage people to be active in their communities (even if that means joining a local gym)” (2003, p459).

Over the last fifty years, issue-based participation has risen, while party political participation fell (Chadwick, 2013); familiar contemporary styles of participation, such as demonstrations and boycotts, became increasingly popular, as people took part in social movements, such as the women’s, environmental and peace movements (Castells, 1997). By 2013, 10% of adults in the UK were members or registered supporters of an environment or conservation group (Cracknell, Miller and Williams 2013, p3), while only 0.8% were members of a mainstream political party<sup>8</sup> (Keen, 2015; SNP, 2013; ONS, 2014; Wilks-Heeg, Blick and Crone, 2012, p188).

### **2.2.3 The network society and democracy**

Castells identifies three convergent processes which are fundamentally changing democratic space: the information technology revolution; social movements of the 1960s and 70s, especially feminism and environmentalism (*ecologism*), and the restructuring of capitalism and statism in the 1980s. Together, these are creating a *network society*, structured in both its functions and processes around networks, rather than hierarchies (1997). The network structure supports changes in power relations; the Internet is the material facilitator of this change (Akdogan, 2012; Castells, 1997). The structure of democratic space changes as its relationship to physical space changes. Castells describes this as the *space of flows* (Castells, 1997, p146). Previously, institutions convened and acted primarily according to physical space. The ability to communicate through the Internet facilitates the sharing of temporal space without necessarily sharing physical space. As physical space (the *space of places*) is essential for most of life, virtual space is still connected with it. The *space of flows* connects

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<sup>8</sup> Keen gives the following figures: in 2013 only 0.8% of the UK electorate was a member of the Conservative, Labour or Liberal Democrat party. Conservative: 134000, Labour: 190000, Liberal Democrats: 43000 (Keen, 2015). Adding 25000 SNP members for the 2013 Scottish context (SNP, 2013) brings the total to 392000. ONS figures put the total number of registered UK local government electors in 2013 at 47,691,800 (ONS, 2014). With these figures 0.82% of registered electors were members of one of these four main parties, in 2013.

a number of spaces (physical and virtual) at once, which changes organisational logic and social dynamics (Stalder, 2006, p144-5). “There is a deep relationship between how social processes are organized and the values they embody” (Stalder, 2006, p1).

Van Dijk explores potential changes in governance as the possibilities arise for practices unbound from physical conditions like place, time, and material resources (2000). Van Dijk is interested in the changing role of powerful bureaucracies at the centre of political networks (2000, p4), as increased use of information communication technologies (ICTs) can support centrifugal or centralising power dynamics. He identifies *political displacement* as the influence of non-governmental organisations on democratic decision-making increases. These organisations may be commercial, international, administrative, civil, or even criminal. Following Castells, van Dijk notices a shift from institutional politics (including organised labour and the church) to participation through a wider range of organisations and mechanisms.

Formal democratic institutions are responding to calls to change (Dalton, 2004) by providing methods for people to interact more directly with policy and decision-making, such as petitions systems (Carmen, 2010). Various bodies are experimenting with participatory budgeting (Scherer and Wimmer, 2012) and deliberative assemblies of citizens (Sintomer, 2012). Many initiatives include online mechanisms, such as e-petitions (p51, below). Millard et al reviewed 255 eParticipation initiatives from across the EU – cases coordinated by citizen-led or government organisations. This survey revealed an expansion in issue-based democratic activities, such as signing a petition or joining a demonstration. Millard et al describe “a surge of grass-root, often single issue engagement in policy making, people generally are more aware of public policy issues, and there are more outlets and channels enabling participation” (2009, p4). The authors suggest that much of this increase in citizen-led participation is positively influenced by the use of Internet tools: “supported, even driven forward, by ICT tools, such as email, online forums, blogs and social media” (p4). One of the goals of the Participation Space Studies is to explore whether and how Internet technologies influence the character of contemporary participation. For example, while the use of media to encourage participation is not new, social media can change the nature and scale of access: “There are more layers of publicness available to those using networked media than ever before; as a result, people’s relationship to public life is shifting in ways we

have barely begun to understand.” (Baym and boyd<sup>9</sup>, 2012). Focusing on grassroots participation in participation spaces can shed light on the co-evolution of contemporary participation and Internet use.

### **2.3 Characterising participation**

Participation spaces are identified as locations of participation. This section looks at the ways participation is defined, characterised, and judged. In this research, participation is understood in terms of processes and activities *within democracy, community and civic life*, rather than participation in sport, entertainment or the arts.

Cornwall (2008) suggests that participation holds different meanings for the various people involved, often according to their role in the process, and that these meanings shape their expectations of both acceptable activities and outcomes. Defining participation is a subjective activity, involving ideological choices, but is an essential part of any analysis (Carpentier and Dahlgren, 2011). Carpentier suggests that democratic theory is central to the concept of participation, by emphasising the importance of power (2011). For Arnstein: “citizen participation is a categorical term for citizen power” (1969, p216). Carpentier emphasises that access and interaction are necessary conditions for participation, but not to be confused with participation itself, as the defining characteristic is power.

#### **2.3.1 Models and typologies**

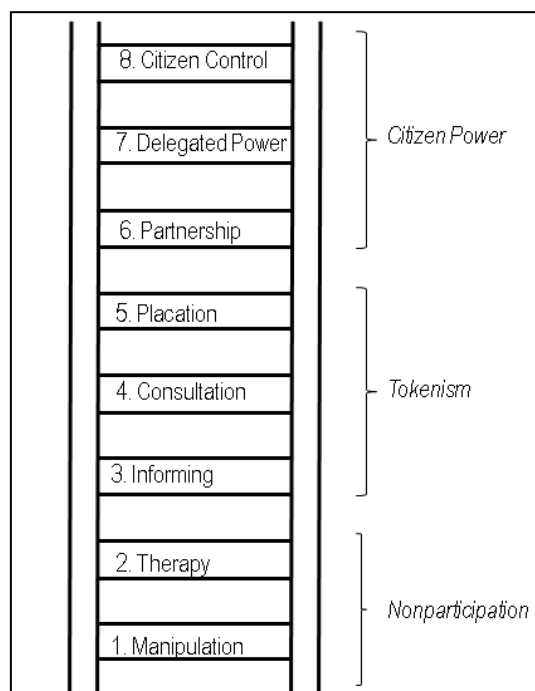
Typologies illustrate potential definitions of participation, drawing out characteristics such as power relations to categorise initiatives for comparison and analysis. Participation typologies are discussed further in the following literature reviews: Aichholzer and Allhutter, 2011; Brodie et al, 2009; Cantijoch and Gibson, 2011. The first and third specifically link their discussions to eParticipation. For this review, two contrasting typologies have been chosen to illustrate the potential characteristics and values of participation initiatives: Arnstein’s Ladder (Arnstein, 1969) and Fung’s Democracy Cube (Fung, 2006). These were chosen because, between them, they describe participation in terms of values and expectations (Arnstein) and in terms of practicalities (Fung). This combination provides a more comprehensive picture than one which focuses on values or practicalities alone. Other models are discussed in relation to these two.

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<sup>9</sup> danah boyd chooses to not capitalise her name.



One of the most influential participation typologies is Arnstein's *Ladder of Citizen Participation* (1969, e.g. cited by Aichholzer and Allhutter, 2011; Brodie et al, 2009; Cornwall, 2000 and 2008; Dufrasne and Patriarche, 2011; Escobar, 2011; Fung, 2006; Matthews, 2012; Slaviero, Bicharra Garcia and Maciel, 2012). Arnstein's typology uses a simple eight-rung ladder (Figure 1 on p33) to illustrate that some activities presented as participation do not facilitate true citizen participation. Arnstein's ladder responds to US federally-funded programs of the 1960s (specifically the urban renewal Model Cities program). In these, Arnstein identified a *sham* kind of participation (pp4 and 6), where citizens' involvement gave them no influence on outcomes. Rungs 1 and 2, *Therapy and Manipulation*, are identified as *Nonparticipation*; rungs 3 to 5, *Informing, Consultation and Placation* are identified as *Tokenism*. The top rungs, *Delegated Power* and *Citizen Control* are described as *Citizen Power*: the definition of participation in Arnstein's text.



**Figure 1: Arnstein's ladder of participation. The original is in Arnstein 1969, p217.**

Cornwall notices that typologies often carry normative assumptions in their scales about what is good or bad (Cornwall, 2008). The rungs of Arnstein's ladder imply that when citizens have a greater share of power, there is a truer form of participation. Arnstein's argument goes further: poorly implemented participation is worse than no participation at all. This still resonates today: in Brodie et al's study (2011) people report that their involvement in institutionally-initiated participation, especially consultations, wasted their

time, changed nothing, and discouraged future participation. In Held's *Models of Democracy* (2006) the possibilities for citizen power are explored through the relative emphasis on participation or representation in each model. This balance is also explored by Carpentier, who describes participation through an exploration of maximalist, participatory, and deliberative theories of democracy (Carpentier, 2011).

Fung (2006) presents his typology – *the Democracy Cube* – specifically as an alternative to Arnstein's ladder. For Fung, the ladder as an analytic tool is obsolete, due to advances in the theory and practice of participation, and defective, due to the fusion of its scale with the normative, and sometimes inappropriate, idea that citizen control is the goal of all participation (p67). Fung creates a three-dimensional framework – *the Democracy Cube* (Figure 2, p34) – where any (institutionally-initiated) participation mechanism can be located. This is designed to aid understanding of the diverse ways in which participation is useful and can be implemented. The cube's three dimensions are *who participates* (on a selection scale of more exclusive to less exclusive), *communication and decision* (how do participants communicate and make decisions, on a scale of least to most intense) and *authority and power* (the impact of the participation on decision-making, on a scale of least to most authority).

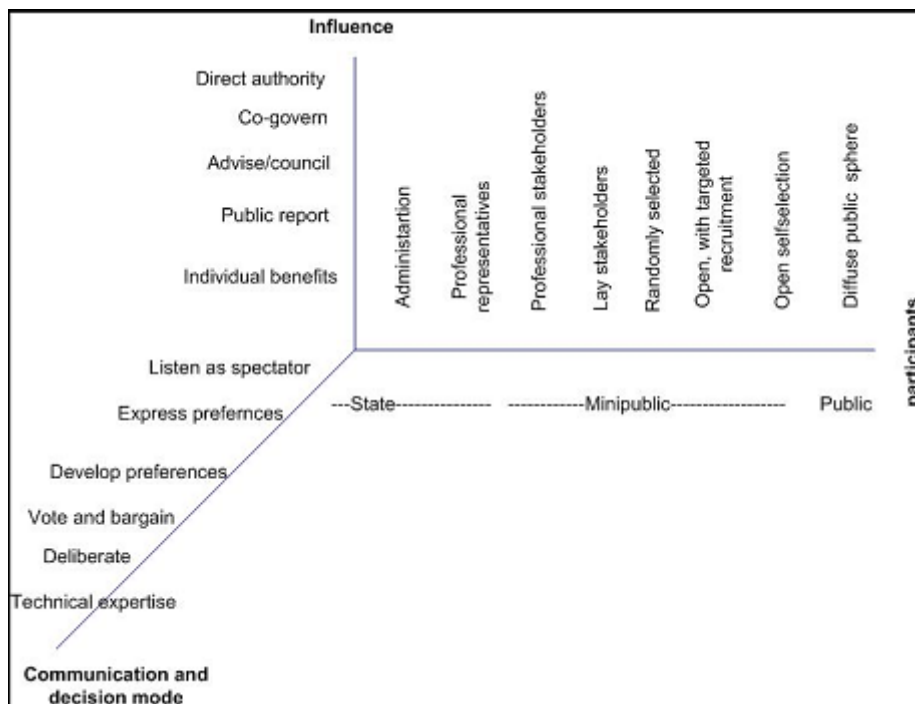


Figure 2: Fung's democracy cube, based on Fung, 2006, p71

Fung uses the example of the participatory budgeting process of Pôrto Alegre, in Brazil. By modelling this process in his cube, Fung illustrates that it involves more people than the traditional budgeting process; as it is a legitimate part of the city's budgeting, it has the same influence as traditional budgeting; participants can use the same communication and decision modes as the administrators and elected representatives who decide traditional budgets.<sup>10</sup>

With a background in participation within the international development context, Cornwall cautions against taking an overly-schematic view: "The distinctions that typologies present as clear and unambiguous emerge as rather more indistinct. Indeed, the blurring of boundaries is in itself a product of the engagement of a variety of different actors in participatory processes, each of whom might have a rather different perception of what 'participation' means" (Cornwall, 2008, p274).

### **2.3.2 Modelling participatory genres**

Orlikowski and Yates (1998) created a framework based on genre theory, to structure analysis of interactive communication in a collaborative organisational setting. Genres are evolving patterns of communication, in which recognisable structures of forms influence people's understanding of the content (Erickson, 2000). They are institutional templates for social interaction (Orlikowski and Yates, 1998, p14). Frameworks derived from Orlikowski and Yates' genre analysis have been used to study online communication and participation, rather than value-laden typologies. Genre approaches resemble the Participation Space Studies in centring on structured descriptions.

Erickson applied genre theory to online forums to highlight the relationship between the characteristics of the forum and the nature of the conversation (1997; 2000). In contrast to analyses which focus on the perspectives of people, Erickson used genre theory to focus on the medium of the forum "and the way in which that medium allows the participants to understand and shape the underlying conventions of discourse" (1997, p14). Dufrasne and Patriarche applied Orlikowski and Yates' (1998) approach to participation in order to identify

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<sup>10</sup> Participatory budgeting processes are modelled by Scherer and Wimmer (2012). This paper includes a description of the Pôrto Alegre's participatory budgeting process as it is implemented today.

genres (Dufrasne and Patriarche, 2011). The framework is a simple matrix with columns headed *Why, how, what, who/m, when, where* (Table 2). The emphasis is descriptive and analytic, rather than normative. Grönlund and Susa (2012) applied Orlikowski and Yates' genre framework to the *European Citizens' Initiative*<sup>11</sup>, in order to understand communications between potential stakeholders (e.g. citizens, governments, civil society organisations). Grönlund and Susa amended the framework to separate more explicitly the *content* of the communication and the communication *medium*, using the criteria: *Purpose, why? Content, what? Participants, who? Timing, when? Location, where? Form, how? (Technologies used)* (2012, p42).

**Table 2: Participatory genres as repertoires of elements from Dufrasne and Patriarche, 2011: p71**

<i>Why</i>	<i>How</i>	<i>What</i>	<i>Who/m</i>	<i>When</i>	<i>Where</i>
Participatory aims	Communication medium	Sequence of genres	Ratified participants	Frequency	Place of activity
	Communication flow	Types of problem	Legitimated initiator	Duration	Place of access
	Communication style	Types of focus	Discursive positioning		
	Degree of participation				

### 2.3.3 Invited and created spaces for participation

Cornwall draws out the influences of ownership and control by characterising top-down participation as *invited* participation (Cornwall, 2000). The term *invited spaces* arises from Cornwall's work with colleagues Gaventa and Brock (at the Institute of Development Studies<sup>12</sup>) to describe participation initiatives organised by authorities or institutions (Brock, Cornwall and Gaventa, 2001; Cornwall and Coehlo, 2007). In invited spaces, citizens are invited to take part, but the spaces are "framed by those who create them, and infused with power relations and cultures of interaction carried into them from other spaces" (Cornwall and Coehlo, 2007, p11). Cornwall contrasts these with initiatives which are *created* and managed by citizens. These *created spaces* support the kind of participation often termed grassroots or bottom-up (e.g. by Miller et al, 2009; van Zoonen, Vis and Mihelj, 2010;

<sup>11</sup> "The European citizens' initiative allows one million EU citizens to participate directly in the development of EU policies, by calling on the European Commission to make a legislative proposal".

<http://ec.europa.eu/citizens-initiative/public/welcome?lg=en>

<sup>12</sup> <http://www.ids.ac.uk/>

Williamson, 2011). The term *invented spaces* is adopted by Miraftab (2004) and Escobar (2011), as a pair to the term *invited spaces*, to describe these created spaces and discuss the two strands of participation together.

Hassan echoes this dual conceptualisation, specifically referring to the Scottish context, in his *unspace* and *fuzzy, messy spaces* (2014, p64-66). *Unspace* describes the awkward formal spaces of democracy, where people wear name badges and express opinions aligned to their institutional mandates. *Fuzzy, messy spaces* are where people come together out of interest, talking as individuals, in everyday terms. Hassan notes how *unspace* excludes certain people, behaviour, and opinions. This resembles Goffman’s description of restricted behaviour in front regions (1971), which is discussed further below (p71). However, Hassan does not link this conceptualisation to either Cornwall or Goffman.

**Table 3: Features of unspace and fuzzy, messy spaces (Source: Hassan, 2014, p65)**

Unspace	Fuzzy, messy spaces
Name Badges	No name badges
Delegates	Individuals
Participants list	No participants list
Corporate or public sector sponsors	No sponsors or trust sponsors
Week day	Often at weekend
Participants attend as part of work	Participants come out of interest
People talk from institutional roles and mandates	People talk as individuals
Subjects and agendas institutionally focussed	Subjects and agendas values-oriented
Discussions filled with jargons and Buzzwords	Discussions mirror everyday conversations

Cornwall and Hassan’s conceptualisations highlight issues arising from the initiation and control of participation. As in the Participation Space Studies described in this thesis, the activities and management of participation are conceptualised in terms of the spaces in which participation takes place. Creation and power also involve work, especially organisation. Organisers and facilitators work on participation initiatives outside the spaces, before and afterwards (creating the spaces). This is behind the scenes and potentially invisible work (p76, below). Escobar investigates the organisation and facilitation work associated with invited spaces (2011). This crucial work is under-researched in studies of participation (Escobar, 2013).

Cornwall further highlights participation as *situated practice*, because it cannot meaningfully be separated from its context (2002, p50). Rather, it is important to approach “spaces for

participation in the places in which they occur, framing their possibilities with reference to actual political, social, cultural and historical particularities rather than idealised notions of democratic practice” (Cornwall, 2002, p51). This is aligned to Suchman’s use of the concept of situated action (p60, below). The Participation Space Studies follow this idea by taking an ethnographic approach to studying participation in context and capturing this context within the participation spaces concept. Focusing on participation spaces also informs the understanding of participation in this thesis, which includes both trying to influence events and the activities which support this.

### **2.3.4 Citizen perspectives on participation**

The English *Pathways through participation* project (Brodie et al, 2011) was conducted by NGOs to support more effective implementations of participation. It explores participation from the perspective of the individual through interviews and focus groups.<sup>13</sup> This study is particularly relevant to the Participation Space Studies: both investigate citizens’ experiences of participation through case studies and fieldwork, using a variety of qualitative methods, including interviews. Based on their investigation, Brodie et al (2011, p15) identify three types of participation: *Public Participation* describes engagement of individuals with the structures and institutions of democracy; *Social Participation* describes collective activities as part of peoples’ everyday lives; *Individual Participation* describes the choices and actions individuals make. *Pathways through participation* participants had strong views about activities that would not be classed as participation: for some, participation required collective activities; being paid excluded the person and the activity.

### **2.3.5 Participation conclusions**

This overview presents participation as a series of ideals and practicalities. The central theme is power, but, in practice, power involves work and responsibility. A wide variety of activities may be understood as participation. Following Cornwall, these should be understood in context, rather than judged by abstract values (2002). This thesis investigates these contexts as participation spaces and understands participation according to both power – trying to influence events – and the activities which support this: organising, sharing information, and gathering support.

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<sup>13</sup> The study was led by the National Council for Voluntary Organisations (NCVO) in partnership with the Institute for Volunteering Research (IVR) and public participation experts Involve.

## 2.4 eParticipation

### 2.4.1 Overview and history

This thesis focuses on the relationship between activities and contexts in citizen-led participation. These contexts (participation spaces) may be online or offline. The rest of this literature review pertains to bodies of research that investigate the relationship between technologies and society, especially eParticipation, social informatics, and social shaping. This section provides an overview of eParticipation and related research. It outlines the emergence of the term eParticipation and the motivations and theoretical models which underpin discourses, studies, and pilot implementations. Three models are explored in more detail: increasing participation to ameliorate the democratic deficit, Habermas' Public Sphere (1964; 1989), and Oldenburg's Third Place (1999).

The term eParticipation emerged around 2005 to describe an interdisciplinary area previously referred to as eDemocracy or not specifically named. Three literature reviews describe the emergence of the term, theoretical contexts, activities, research agenda and methods: Aichholzer and Allhutter, 2011; Medaglia, 2011; Rose and Sanford, 2007; Sæbø, Rose and Flak 2008. Rose and Sandford's paper and Sæbø et al's paper are based on the same literature review, undertaken relatively early in the emergence of eParticipation research (2007; 2008); Medaglia's study updates their review (2011). Aichholzer and Allhutter's later review is able to focus on more empirical studies and any observed impacts of eParticipation on democracy (2011).

Timelines of eDemocracy and eParticipation identify early work as dominated by hype and technological determinism (Chadwick, 2009; Loader and Mercea, 2012; Wright, 2011; 2012) as the possibilities of the Internet to revolutionise democracy were hailed enthusiastically (e.g. Dahlberg, 2001; Rheingold, 2000<sup>14</sup>). This first phase was succeeded by a pessimistic reaction, which Wright calls the "cyber-realist or normalisation "school"" (2012, p245). In this second phase, enthusiasm about online participation was tempered by concerns about the digital divide and a mismatch between the conditions of online discussion fora and deliberative ideals. This phase included numerous empirical studies, e.g. of Usenet groups. These studies are criticised for following over-ambitious, *romanticised* models of

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<sup>14</sup> Barlow's 1996 Declaration of the Independence of Cyberspace is an extreme example of this, in which the Internet entirely displaces the need for governments.

participation (Chadwick, 2009, p15), based in ideals of deliberative democracy inspired by Habermas, to the exclusion of a broad range of people (Loader and Mercea, 2012) and activities (Wright, 2012). This model is explored below (p45). Margolis and Resnick's review of US studies (2000) concluded that, in terms of demographics, online participation resembles offline participation: it is situated within the same power structures. This was termed *normalisation* or *reinforcement*; as opposed to *equalisation* or *revolution*, in which the Internet provides opportunities to even out participation in, and access to, democracy (cf. Wright, 2012). This debate is discussed below (p43).

Over the next few years, governments, parliaments, and the European Commission started to implement or sponsor eDemocracy and eParticipation pilots. The UK Government funded the UK Local e-Democracy National Project (2004-5), in which English local councils were supported to implement online participatory mechanisms, such as e-petitions systems, and interdisciplinary teams collaborated on their evaluation (Macintosh and Whyte, 2006; 2008; Panagiotopoulos and Al-Debei, 2010; Whyte, Renton and Macintosh, 2005). The EU eParticipation Preparatory Action funded 21 pilot projects over three years: 2006 – 2008 (Chrissafis and Rohen, 2010; Koussouris, Charalabidis and Askounis, 2011). The European Commission also sponsored related projects and networks under its main research funding programs. The UK Local e-Democracy National Project and the EU eParticipation Preparatory Action specifically funded pilots in which government bodies were partners, potentially creating a research bias towards top-down implementations. These programs were funded during an expansion in state-funded eDemocracy and eParticipation projects, including e-voting pilots in English local elections (Macintosh, 2004); the Scottish Parliament's e-petitions system (Carman, 2010; Lindner and Riehm, 2011); e-consultations run on behalf of the Scottish Executive (Macintosh, 2004); and the Westminster Parliament's Digital Dialogues pilots, in partnership with the Hansard Society (Miller and Williamson, 2008). High profile citizen-led eParticipation projects, such as My Society's *They Work for You* and *Fix My Street*<sup>15</sup>, also focused on parliament and government: *They Work for You* provides a web interface to national elected members' parliamentary activities; *Fix My Street* provides a GIS-based interface for citizens to inform their council that local maintenance is needed, and for the council to provide updates on the problem. Wright

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<sup>15</sup> <http://www.theyworkforyou.com/> and <https://www.fixmystreet.com/>



identifies this as a period in which other researchers were also focusing on the formal democratic sphere through content analysis of elected representatives' posts on social media and blogs (2012).

In 2008, Sæbø, Rose and Flak conceived of eParticipation primarily in terms of formal, top-down democracy, via a tree of more general terms: eParticipation as a subset of eDemocracy, which is presented as a subset of eGovernment.<sup>16</sup> Macintosh identifies the arrival of digital government, accompanied by concerns that the digital divide is widening in society, as a driver for eParticipation research (Macintosh et al, 2002). Chadwick (2003) suggests that the increased digital network infrastructure within government provides more opportunities for government departments to interface with the outside world, increasing (e-)democracy, rather than just administrative efficiency. This resembles Fountain's conception of digital government (p57, below): the networks supporting internal government activities also link to those outside, providing information and communication links in both directions (2001).

EParticipation research has increasingly focused on the activities of citizens and civil society organisations, including social movements: e.g. a special issue of the *eJournal of eDemocracy and Open Government (JeDEM)* focuses on digital citizenship and activism (Bakardjieva, Svensson and Skoric, 2012). This reflects concerns that early eParticipation research was insufficiently grounded in *participation* research, or the literature on social movements, mass media and democracy (Della Porta, 2011). It also stems from the recognition that third sector and grassroots organisations are essential building blocks of our democracies (Chadwick, 2009; Williamson, 2011). Mayo and Steinberg's influential *Power of Information* report describes information from citizens and third sector organisations as a valuable resource, made available to the government by the Internet (2007).

Recent and contemporary phases of eParticipation research investigate the possibilities of social media, both as a space for democratic activity (e.g. Arora, 2014; Chadwick, 2009; Loader and Mercea, 2012; Williamson, 2011; Wright, 2012) and a source of data. Twitter,

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<sup>16</sup> Sæbø, Rose and Flak suggest that other groupings of citizens are relevant, but not the focus of eParticipation (p402-3). However, their focus could be understood to include activists and social movements, where their goals come under the remit of political institutions.

especially through its public application program interfaces (APIs<sup>17</sup>) (Bucher, 2012), provides a vast resource of published posts: an archive of big data. Researchers have analysed social media posts to investigate uprisings and revolutions, including the London Riots (Gerbaudo, 2012) and the Arab Spring (Fuchs, 2012), as well as political events like the 2014 Independence Referendum in Scotland (Quinlan, Shephard and Paterson 2015) and the activities of social movements (Seegerberg and Bennett, 2011). Public social media posts also reveal people's experiences of war and conflict that may not be reported in the mass media: Mexican Twitter posts analysed by De Choudhury, Monroy-Hernández and Mark surface Drug War violence and its effects (2014). As Wright observes, this style of research includes a greater focus on the contributions of citizens, sourcing these from online spaces that are not provided by governing institutions or aligned to political organisations (2012).

## **2.4.2 eParticipation to ameliorate the democratic deficit**

### **2.4.2.1 Democratic values and technological determinism**

EParticipation is explicitly concerned with the relationship between technology and social change. Its discourses tend to include the assumption that increased participation benefits democratic societies (Sæbø, Rose and Flak, 2008). In this way, the democratic deficit is considered an opportunity for eDemocracy and eParticipation: the problem which needs to be addressed (e.g. Lamb, Berntsen and Kueppers, 2004; Macintosh, Malina and Farrell, 2002). In their structured literature review, Sæbø, Rose and Flak (2008) identify increased civic engagement and positive democratic development of society as the main motivations for eParticipation initiatives: "More participators, new participators, new forms of participation, and more contributions are generally assumed to be beneficial" (p413).<sup>18</sup> Macintosh's definition of eParticipation summarises this desired effect, specifically including citizen to citizen interactions: "use of information and communication technologies to broaden and deepen political participation by enabling citizens to connect with one another and with their elected representatives" (2006, p364). Macintosh and her colleagues were predominantly involved in applied research, through direct involvement in implementations, as well as evaluating third-party pilots. This stream of research is driven

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<sup>17</sup> Twitter's APIs enable developers (and researchers) to link their code to the outputs of Twitter's code <https://dev.twitter.com/overview/api>

<sup>18</sup> They also note that these ambitions are "tied to a normative vision of which democratic improvements are desirable". (Sæbø, Rose and Flak, 2008: p413)

by a combination of the ambition to improve the democratic climate and the affordances of technology and was sometimes interpreted as technologically deterministic: Bannister and Connolly identify eParticipation as an “example of technical rationality. It is predicated on the assumption that technology will change human (in this case political) behaviour” (2011, p11); they also describe eParticipation as a “governance vision” (p10).

Many technology discourses are primarily utopian or dystopian (Dunlop and Kling, 1991b; Hara and Huang, 2011; Kling, 1994; Papacharissi and Easton, 2012). However, eParticipation writers are explicitly concerned to avoid technological determinism (e.g. Aichholzer and Allhutter, 2011; Fuchs, 2012; della Porta, 2011; Hara and Huang 2011; Medaglia, 2011; Morozov, 2011; Papacharissi and Easton, 2012; Polat, 2005; Smith, 2004; Wright, 2011). Polat suggests that technological determinism can be avoided by investigating the links between the Internet and participation, rather than focusing on the latest technology (2005). Medaglia (2011) and Fuchs (2012) suggest a focus on contextual, rather than technological factors. However, neglecting technological factors is not necessary in order to avoid technological determinism or a good idea in studies of technology (cf. Orlikowski and Iacono, 2001). What is necessary is a holistic and contextual understanding of technologies which are used for participation, including social and historical factors: “E-Government does not evolve in a technological bubble” (Bannister and Connolly, 2011, p14). These ideas inform the analysis of participation spaces in this thesis, in which people, histories and ideologies are considered relevant characteristics of each space. Technological determinism is discussed further below (p53).

#### **2.4.2.2 Normalisation and equalisation**

In order to ameliorate the democratic deficit, eParticipation would need to improve people’s trust in politicians and political institutions and increase participation. There is some evidence that these two are related: if people have a good experience of participation, their opinions of democratic institutions improve (cf. p38, above). Carmen describes and illustrates this in his study of the Scottish Parliament’s petitioning system (2010). He also notes the “positive correlation between distrust and disengagement” (p734).

Early eParticipation studies cast into doubt the positive effect of the Internet on participation. As noted above, Margolis and Resnick had observed that people who

participated already were likely to participate online, rather than previously excluded demographics becoming empowered by the Internet (2001). While Internet access expanded across demographics, this normalisation (reinforcement) problem continued to haunt eParticipation. Best and Krueger found that, because of access, skills and cultural traditions, those with more money were more likely to use the Internet to increase their democratic participation and influence, in the same way that they were more likely to vote (2005). Young people were an important exception: their technology skills and enthusiasm increased their likelihood of participating online (Best and Krueger, 2005). This is also the conclusion of Lindner and Riehm's review of e-petitioning initiatives provided by European governments and parliaments (2011). Hara and Huang reviewed the literature and concluded that the evidence did not conclusively favour either side in the reinforcement/equalisation debate, but that it was important to focus on the social processes around Internet use in any analysis (2011). US social informatics research had initially indicated that technology implementations tended to be aligned to existing social hierarchies (e.g. as summarised by Kling, Rosenbaum and Sawyer, 2005). However, Sanfilippo and Fichman suggest that social informatics researchers have come to disagree over whether ICTs generally favour the status quo (2014). This may reflect changing contexts of ICT use over time or a wider international focus, rather than the longitudinal analysis of individual researchers.

Wright suggests that the focus on this normalisation debate has been harmful to eDemocracy research, creating a kind of tunnel vision about what to study and what to value (2011): a disproportionate focus on formal institutional democracy (practices and actors) and on the latest technology, studied in isolation. Wright contends that researchers neglect the larger part of democratic practice online, which takes place in non-political spaces (p48, below). This skews the overall picture of online democracy towards negative results. If researchers look for participation in settings which are controlled by established democratic institutions, this will influence the people and activities they find there.

Graham and Dutton explore the many ways in which access to the Internet shapes people's lives, including: how people create, get, and distribute information; how people communicate with people they know and don't yet know; and how people obtain services (public or commercial) (2014, p2). They find enough evidence to show that "shifting

patterns of access translate into significant outcomes in politics, governance, work, and the quality of your life and the lives of people across the globe” (2014, p2). Graham and Dutton highlight the dynamism and diversity of contemporary Internet access: as people use various devices and applications, in various places, people experience different impacts and opportunities. The Participation Space Studies aim to explore this in terms of people using Internet technologies to support their work within community and activist groups.

#### **2.4.2.3 eParticipation to ameliorate democracy in the EU eParticipation pilots**

Ostling notes that the potential for eParticipation to address democratic problems has been “rather uncritically” promoted in the EU, without results showing improvements, leading to “peaks of inflated expectations and voids of disillusionment” (Ostling, 2010, p1). Until recently, EU eParticipation initiatives have had limited success in broadening participation: few people participated in the European Commission’s eParticipation Preparatory Action pilots and demographics reflected those of traditional democratic participation, with a high proportion of participants being older, wealthier, and more educated than average (Koussouris, Charalabidis and Askounis, 2011). Owners of eParticipation initiatives in Millard et al’s (2009) evaluation study wanted to see “more participation, both in numbers and in quality”. They felt that they had “a long way to go to achieve the full potential of their initiatives” (p17).

#### **2.4.3 Habermas’ public sphere models**

As described above (from p39), early eDemocracy and eParticipation research and implementations drew on deliberative democracy models, especially Habermas’ *public sphere* (1964; 1989) (Dahlberg, 2001; Polat, 2005; Wright, 2012). This is still a prominent framework for discussing contemporary democratic spaces (e.g. Arora, 2014; Kim and Kim, 2008; Papacharissi, 2009). Habermas conceived of the public sphere as an abstraction of social assemblies, in which private individuals form a public body through coming together and discussing matters of interest to them. At the heart of these assemblies is the sharing of information and reasoned discussion. Ideally, the public sphere influences government, but state authority is not part of the public sphere. Habermas identified challenges for contemporary instances of the public sphere, including the role of the media and of civil society organisations, especially those which interact directly with government on behalf of the public (Habermas, 1964, p54).

The public sphere has been taken up as a potential model for Internet democracy, as well as a straw man. Loader and Mercea (2012) identify the desire to create a virtual public sphere in the first wave of ideas about digital democracy, where cyber-libertarian enthusiasm suggested this could potentially displace government. Dahlberg (2001) evaluated Minnesota E-Democracy (below, p50) according to his model of Habermas' public sphere. He concluded that, with some limitations and adaptations, online deliberative initiatives could extend the public sphere into cyberspace. Loader and Mercea describe the wave of enthusiasm withdrawing, as the influence of the Internet on democracy began to be seen more in terms of everyday life, including entrenched social and economic interests. In parallel, Habermas' ideals of rational deliberative democracy were criticised for overemphasis on deliberation, which tends to be the favoured interaction of wealthy white males, but may exclude other people (Loader and Mercea, 2012, p1<sup>19</sup>). Flyvbjerg criticises Habermas for his "formalism, idealism and insensitivity to context" (2001, p96). Flyvbjerg favours detailed investigations into real world contexts over utopian models in order to improve our democracies. Chadwick suggests that the deliberative model for eDemocracy has had a negative effect on government attitudes towards it (2009). Deliberative democracy is difficult to fit with the UK's current policy-making processes; participation in online deliberative forums, provided by government or parliament, has been low. Chadwick refers to the forums piloted in the Digital Dialogues project (Chadwick, 2009, p16; Miller and Williamson, 2008).

Habermas provides the example of coffee houses as potentially hosting the public sphere: public locations, where private people came together, reading and discussing news journals; an eighteenth century setting, where both coffee houses and intellectual newspapers were new. This image may influence writers who emphasise everyday contexts in their interpretations of Habermas' model: Kim and Kim (2008) identify the foundation of the public sphere in everyday political talk; they emphasise the *dialogic* dimension of deliberation. For Graham, the changing nature of political participation, away from institutions and into lifestyle politics, needs to be reflected by a change in research focus towards the online spaces of everyday life (2012). He identifies political talk in online forums, such as *Money Saving Expert*<sup>20</sup>, and reality TV discussion boards, such as those

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<sup>19</sup> Loader and Mercea reference Carole Patemen, Nancy Fraser, Liesbet van Zoonen and Alan McKee.

<sup>20</sup> <http://www.moneysavingexpert.com/>

devoted to *Wife Swap*. Graham devises a set of criteria to evaluate deliberation on these boards based on Habermas' theory of communicative action: the presence of rational-critical debate; coherence and continuity; reciprocity, reflexivity and empathy; and discursive equality (Habermas, 1984, cited by Graham, 2012). According to these criteria, he finds deliberation on the *Wife Swap* boards, but also finds the importance of emotion and humour – *expressives* – to enhance reasoning and manage discussions. Baym and boyd also propose that people engage in the “politicized public sphere” in personal and social ways (2012, p325). Coming together to discuss mundane topics, like hobbies or traffic, helps people to develop their identity within society; publics coalesce via these informal discussions (Shklovski and Valtysson, 2012). Publics that form around de-politicised content are particularly important in countries where online speech is heavily monitored: Shklovski and Valtysson's case studies are based on an online forum in Kazakhstan. In this way, Baym and boyd suggest that “socially-mediated publicness may be a source of support and empowerment” (Baym and boyd, 2012, p325).

Dahlgren suggests that Habermas' over-emphasis on rationality constricts the other communication modes – humour, satire, affective expression – which are essential parts of participation (2012). Public spheres have a rational element, which is important to decision-makers, but the larger democratic arena contains as many affective as rational modes (Dahlgren, 2012). For a history and discussion of humour as political participation see Dias da Silva and Garcia (2012). For the role of public participatory art, see Harrison and Barthel (2009). Wright suggests that the Habermasian models used to evaluate early eParticipation are overly serious and dry (Wright, 2012, p15). They do not resemble the way people actually discuss politics.

However, Bennett (2008) and Dahlgren (2011) worry about the Internet as an isolating public sphere, satisfying some people's need for political activity, but overly focused on personal identity and disconnected from the interactions needed to influence offline institutions and events. Marichal worries that social media increase a bias towards personalisation and self-expression, especially through Facebook's *architecture of disclosure* (2012). This is a threat to democratic skills: the personal encroaches into the political as people become habituated into seeing “the public through the lens of the private” (p7). People lose the skills necessary for reasoned analysis and rational deliberation, especially

for dialogue with those holding different views. Politics becomes focused on politicians, rather than ideas, and this is corrosive.<sup>21</sup>

Papacharissi (2011) describes new kinds of space online, which are characterised by repetitions and reflexivity across time and space; not inherently democratic, but potentially providing unique opportunities for democracy. “The social and the political are blurred, as mediated environments fail to distinguish between the two” (Papacharissi, 2011, p14). Expression and communication on social networks can feed into community and protest, as in the use of Twitter to share news during the Egyptian uprising in 2009 (Papacharissi, 2011; Papacharissi and de Fatima Oliveira, 2012). These contexts may be thought of as public spheres, in terms of public interaction with potential to influence events, but not in terms of Habermasian ideals (Papacharissi, 2011, p15). They are *affective publics*, where the impact of online activism is primarily, but powerfully, symbolic (Papacharissi, 2014). Papacharissi and de Fatima Oliveira conclude that the Internet is a more affective than deliberative medium, best understood through narrative models (2012). Papacharissi and Easton identify characteristics of the Internet which specifically promote and augment storytelling and authorship, because content-creation and disclosure are rewarded (2012). These diverse ideas about the kind of spaces that support democratic activities, including, but not restricted to, deliberation, are absorbed into the Participation Space Studies, both in terms of identifying and locating participation.

#### **2.4.4 Oldenburg’s third place models**

Models inspired by Oldenburg’s concept of the *third place* (1999) look for democratic participation, e.g. political talk and possibly deliberation, in online spaces that are not specifically associated with politics or democratic institutions (Wright, 2012). Oldenburg’s slightly nostalgic concept is somewhere locals meet routinely but informally, not for work. The third place is defined by lively conversation, steered, often with humour, by regulars. Newcomers are made welcome and social hierarchies flattened. Oldenburg’s examples include pubs and cafes. For Oldenburg, third places were disappearing from the US, as people stayed in and watched television (1999, p77). Oldenburg did not recognise the Internet’s potential to provide third places, but interpreted it as an “artifact of atomization” (1999, p264). However, other writers describe online communities in terms of third places.

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<sup>21</sup> Though Taylor-Smith notes that this focus can also bring corruption and hypocrisy to light (2013).



Rheingold recognises the online community he was involved in, the Well, as an online third place (2000). Soukup explores applying Oldenburg's concept to computer mediated communication, as *virtual* third places (2006), concluding that, rather than increasing atomisation, online spaces bring people together in unique social ways: social opportunities that can fit into busy and stressful lives.

Like Kim and Kim (2008), Wright recognises the importance of political talk in non-political everyday contexts (2012). Wright compares the characteristics of non-political spaces online with Oldenburg's description of third places. He suggests a *third space* model in which geographical location is not necessarily relevant, because third spaces bring people together online around a shared interest. A number of studies investigate political content in everyday contexts online (Wright, 2012), including: van Zoonen, Vis and Mihelj's study of YouTube videos and comments (2010) and Graham's studies of political talk and deliberation on non-political forums (2012). These studies show the integration between the political and everyday life: people's experiences and identities (Graham, 2012). Online spaces which bring people together around a shared (not political) interest gather a more diverse range of people than political spaces. This enables less polarised discussions (Wright, 2012) and a wider range of communication styles (Graham, 2012). These spaces can bypass established power structures: Cohena and Raymond studied discussions on Internet forums for pregnant women and concluded that these forums empowered women to exchange information and support peer to peer, rather than relying on partial or hierarchical information distribution from the medical profession (2012).

#### **2.4.5 Integrated eParticipation and hybrid media**

Studies of political talk in non-political spaces illustrate how the practices of participation and eParticipation are integrated into everyday life. EParticipation mechanisms are both sociotechnical systems (p57, below) and embedded *within* sociotechnical systems.

Chadwick's study of campaign facilitators *38 Degrees*<sup>22</sup> describes how campaign tools like e-petitions are embedded in a range of activities and mechanisms, on and offline, including demonstrations, emails and extensive use of social media, as well as interactions with *older media* (2013). Media, old and new, are used together, according to their *media logics* (Altheide, 2004). Chadwick uses an ethnographic approach to investigate the emerging

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<sup>22</sup> <http://www.38degrees.org.uk/>

dynamics and boundary work which support these sociotechnical systems, which he calls *hybrid media systems*: Chadwick's central concept of *hybridity* prompts us to understand media use in terms of *not only but also*, rather than the binary *either/or*. This is particularly important in the relationship between older and newer media, including offline and online media (though media have always been hybrid). Hybridity moves beyond integration, as something new is created. Hybrid media focuses on systems, rather than individual choice. Hybrid media systems are dynamic, continually recreated by changing practices, shifting boundaries, and the flow of power. Hybrid media is essentially a mediation theory (p68, below); the idea has its roots in actor network theory (Chadwick, 2013, p14) and assemblages (Deleuze and Guattari, 2004, cited by Chadwick, 2013, p14). Mediation (p68), media logics (p68), assemblages (p61), and actor network theory (p57) are discussed below.

#### **2.4.5.1 Locality**

Locality is an essential feature of politics, online and offline. The Minnesotan participants described in Dahlberg's study (2001), described above, were local people discussing local issues, via email, using their real names (Aikens, 1998). Subsequently known as Local Issues Forums, Minnesota E-Democracy's format has proved to be one of the most successful for eParticipation. This email-centred format spread and adapted, integrating web access and later social media. Today E-Democracy.org hosts over 50 Local Issues Forums in New Zealand, the United Kingdom, and the United States (E-Democracy.org, 2012).

An offline location is frequently central to a social movement's identity. For example: Egypt's Tahir Square (Marichal, 2012), Occupy, and climate camps (Mercea, 2013; Papacharissi, 2014; Segerberg and Bennet, 2011). Social media accessed via mobile devices, including digital cameras, help to publicise activities in these locations, and the protesters' grievances, to both potential protestors and the outside world, including the international media (Marichal, 2012), e.g. through associated hashtags like #egypt (Papacharissi and de Fatima Oliveira, 2011). Diamond's enthusiastic concept of liberation technology outlines ways in which combinations of technologies, such as digital cameras and mobile phones, combined with public distribution networks like YouTube, enable "citizens to report news, expose wrongdoing, express opinions, mobilize protest, monitor elections, scrutinize government, deepen participation, and expand the horizons of freedom" (2010). These may cause governments to show justice to citizens or to block networks and imprison bloggers

(Diamond, 2010; Morozov, 2011).

#### **2.4.6 E-Petitions systems**

E-Petitions systems have been extensively implemented and evaluated. This group of eParticipation mechanisms involves both bottom-up and top-down participation. An overview is provided here to illustrate the themes of this section.

Online petitions systems are provided by many governments and parliaments in the EU and there have been increases in petitioning to these institutions (Lindner and Riehm, 2011; Ostling, 2010; Riehm, Böhle and Lindner, 2014). The introduction of e-petitions systems has been accompanied by changes in policy and processes concerning petitions in general: increased use cannot be solely correlated with the online systems. Comprehensive evaluation of the German Bundestag implementation puts increased use in context. In the Bundestag's pilot e-petitions phase, the maximum number of online signatures was 134,015; paper petitions in the 1950's and 60's also gathered hundreds of thousands of signatures (Riehm, Böhle and Lindner, 2014). In terms of normalisation, Lindner and Riehm's evaluation indicates that the reform of the Bundestag's petitioning system, including the introduction of e-petitions, had limited success in widening the participation base: most people setting up e-petitions were men and had above average levels of formal education; e-petitioners were significantly younger than previous petitioners. People setting up online or paper petitions were more politically engaged than the general population; political engagement was even more pronounced for e-petitioners (Lindner and Riehm, 2011).

Evaluations indicate that the quality of the petitioning process within the governing body is key to the success of e-petitions systems (Carman, 2010; Lindner and Riehm, 2011; Panagiotopoulos and Al-Debei, 2010; Panagiotopoulos and Elliman, 2012; Riehm, Böhle and Lindner, 2014). The fall in signing petitions recorded by the Hansard Society (Fox and Korris, 2013; Fox, Korris and Palmer, 2012) may reflect disappointment in the UK government's e-petitions system.<sup>23</sup> Bochel (2012) suggests that this system is primarily descriptive – *recording* petitions – with weak participation characteristics (after Sartori, 1987). This kind of participation can lead to disillusionment, rather than engagement, as participants find

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<sup>23</sup> <http://epetitions.direct.gov.uk/>

their actions make no significant difference. Some institutional e-petitions systems are provided with additional engagement mechanisms built in: the German Bundestag, the Scottish Parliament, and some English local authority e-petitions systems include integrated online discussion forums (Panagiotopoulos and Ellman, 2012). Many petitions processes allow signatures to be collected via paper and online, and combined at the end.

In the UK, e-petitions systems provided by third-party organisations, such as 38 Degrees, have become more popular than those provided by governments and parliaments. The UK Government system records the highest number of signatures for a 2012 petition at 258,27624; whereas, by February 2011, over 500,000 people had signed 38 Degrees' Save Our Forests petition<sup>25</sup> and the UK Government abandoned plans to sell state-owned English woodland (BBC, 2011; Chadwick, 2013).

This overview of e-petitions reflects the themes of this review of eParticipation. In terms of widening and increasing participation, e-petitions provided by governing institutions are not revolutionary. They support increased participation by younger demographics, but otherwise petitioners resemble people who already participate: older, wealthier and better educated than the average population. E-petitions systems can support participation through providing a vital potential link between issue-based democracy and representative institutions. However, whether e-petitions increase people's trust in government, or parliament, depends on the processes around the petitions (Carmen, 2010; Panagiotopoulos and Al-Debei, 2010; Riehm, Böhle and Lindner, 2014). The public sphere and third place models described above emphasise the day-to-day practice of democracy that takes place away from political institutions. This is reflected by the popularity of third-party e-petitions systems, which now gather more signatures than those provided by governments and parliaments. Bottom-up eParticipation needs to be seriously considered in any survey of the use of technology within democracy.

E-petitions are sociotechnical systems, integrated into wider systems through both government processes and campaigning. Organisational overheads can be reduced, as e-petitions are centrally accessible online and can be promoted by campaigners sharing links

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<sup>24</sup> Convicted London rioters should lose [sic] all benefits (closed 09/02/2012)  
<http://epetitions.direct.gov.uk/petitions/7337>

<sup>25</sup> <http://www.38degrees.org.uk/page/s/save-our-forests#petition>

via online tools such as email and social media (Panagiotopoulos and Al-Debei, 2010; Panagiotopoulos and Ellman, 2012). Promotion potentially involves a wide range of media and events, including traditional and independent media (Chadwick, 2013). Paper petitions continue to be used in parallel or integrated with e-petitions systems (Panagiotopoulos and Ellman, 2012; Riehm, Böhle and Lindner, 2014).

#### **2.4.7 eParticipation conclusions**

This review describes eParticipation research maturing, as its practitioners develop appropriate theoretical models and turn their attention to diverse democratic practices, not restricted to formal or institutional actors, activities or online spaces. EParticipation is increasingly understood using sociotechnical models that help to explore how people participate online, and the dynamic social, political, and technical factors that influence this. Meanwhile, the emergence and domestication of technologies such as social media, mobile phones and digital cameras, continually change the eParticipation landscape.

However, eParticipation has also developed a shadow, as it has become evident that technologies hailed for their potential to improve democracy and empower citizens are used by government agencies to monitor and censor (Fuchs, 2012; Morozov, 2011; Soghoian, 2012). Big data techniques also provide new and potentially opaque campaigning opportunities, as politicians are able to target non-public messages to very specific demographics (Tufekci, 2014).

### **2.5 Technological determinism and democracy**

This thesis describes an investigation into the relationship between activities and contexts in citizen-led participation. Contexts are described as participation spaces, as in the second research question “What characteristics of these spaces influence their use as participation spaces?” ICTs are essential to many of these spaces, especially, but not exclusively, the online contexts. Identifying simple causal relationships between ICTs and activities risks accusations of technological determinism (Graham and Dutton, 2014, p7). The following sections introduce sociotechnical paradigms that facilitate studies which encompass the complex relationships between social and technical factors. These approaches help to avoid investigations being held back by fear of technological determinism (Chandler, 1995; Graham and Dutton, 2014; Leonardi and Barley, 2008; Potts, 2008).

Technological determinism is a group of ideas in which: technology has a direct impact on people and society, uncomplicated by other factors (Kling, Rosenbaum and Sawyer, 2005, p3); technology is the primary driver of social change; and the development of technology (its trajectory) follows a *singular and inevitable* path, guided by technology's intrinsic properties and separate from external influences (Bijker, 2006, p4; MacKenzie and Wajcman, 1999). Technology is considered not just in terms of artefacts, but as processes and systems of knowledge (Bijker, 2006; Ellul, 1964). Technological determinism may have utopian or dystopian flavours, especially with regard to democracy. Ellul, for instance, feared technology as a threat to democracy, which could not be tackled by individuals (1964, pxxxiii). Morozov identifies a misguided *cyber-utopianism* at the heart of US policy, in which the Internet shapes every environment it enters in favour of democracy. He names this the *Google Doctrine* (2011, pXiii). Refuting the characteristics of technological determinism, Morozov notes that: the Internet provides nothing certain on its own; the configuration of the Internet is not finalised and stable; technology is political; and that governments should take responsibility and rein in the power of Internet giants like Facebook and Google (2011, pXiii).

In twenty-first century academia, technological determinism is highly contested (Graham and Dutton, 2014, p7; MacKenzie and Wajcman, 1999), with few defenders.<sup>26</sup> However, deterministic ideas are still prevalent in popular discourse, especially in terms of the relationship between the Internet and democracy and the influences of social media on people's behaviour. Accounts of *Twitter Revolutions* may portray social media as the prime drivers of uprisings such as the Arab Spring and UK riots. However, on investigation, the causes of action and the role of social media turn out to be more complicated (Fuchs, 2012; Gerbaudo, 2012; Marichal, 2012; Morozov, 2011; Segerberg and Bennet, 2011).

The Internet technologies at the heart of the participation spaces research are also studied by media and communications scholars, as well as other social scientists. These academics encounter similar debates about the nature of media and its influence on people and society: media determinism is a form of technological determinism (Chandler, 1995). As

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<sup>26</sup> Schroeder is a defender of technological determinism in terms of accepting that science and technology have impacts on society (2007). However, he also specifically refutes that "science and technology cause wholesale changes in society" (p1).

MacKenzie and Wajcman (1999) have observed, the literature on the relationship between social and technical influences is too vast to write a comprehensive overview, even before attempts to include parallels from media and communications. Relevant reviews include Williams and Edge's useful account of approaches related to social shaping (1996), though this does not include more recent developments. Graham and Dutton (2014) provide a more recent overview, based on their extensive research into understanding the ways that access to the Internet influences people's lives. Lievrouw (2014) provides a helpful history of the relationship between media and communications, constructivism and social shaping, especially with respect to technological determinism. Gillespie, Boczkowski and Foot (2014) consider sociotechnical approaches to studying media technologies. These latter two reviews reflect the recent materialist turn in both media and technology studies. These overviews, combined with MacKenzie and Wajcman's social shaping anthology (1999), and the writings of prominent academics associated with social constructivist and social shaping approaches, are summarised in the table "Technological determinism and sociotechnical models" in Appendix 1. Models are included in the table because of their relationship to the theoretical context of this thesis, especially the STIN framework used to model the participation spaces (Kling, McKim and King, 2003).

### **2.5.1 Social informatics and computerization movement studies**

Social informatics formed around investigations into the relationship between ICTs and social change, especially in reaction to technological determinism (Sanfilippo and Fichman, 2014, p36). Sanfilippo and Fichman provide a history of US and UK social informatics as an approach to studying information technologies in context. They record the underlying principles of social informatics and the evolution of its concepts, frameworks, and findings. Rosenbaum (2014) provides a history of the parallel development of social informatics internationally (in Norway, Slovenia, Russia, Japan, UK and US).

In early social informatics studies, Kling and Iacono investigate the practical influence of deterministic technological rhetorics through their concept of computerization<sup>27</sup> movements (1988). The term computerization is little used now, but describes, potentially without value judgements, the process of moving tasks progressively from humans to computers, with the accompanying development, purchase, and implementation of digital

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<sup>27</sup> The American spelling (computerization) is used here to reflect Kling and Iacono's work.

systems. Computerization studies investigate the influences of ideologies which promote computerization, and the effects of computerization on people, organisations, and society (Dunlop and Kling, 1991b). Kling and Iacono identify belief structures supporting the promotion of information systems (1988). These are technologically deterministic ideas – primarily *technological utopianism* (Kling, 1994) – in which aspects of society (including work, education, democracy and social relations) are going to be improved through increased use of digital technology (Dunlop and Kling, 1991b). Influenced by social movement theorists, Iacono and Kling conceive of computerization movements (CMs) that promote ICTs as enabling elements in a utopian vision of the immediate future (Davenport and Horton, 2005; Dunlop and Kling, 1991; Hara and Rosenbaum, 2008; Iacono and Kling, 2001). Like social movements, artistic, or scientific movements, CMs coalesce around shared discourses and ideologies and their goals are to “displace or overcome the status quo” (Iacono and Kling, 2001, p230).<sup>28</sup>

Computerization movements can be studied via empirical research into the dissemination of the CM’s discourses and the influence of these discourses on the adoption and implementation of technologies (Kling, 1994). Crucially, CM studies foreground people’s ideas about computing as influential factors in the development and use of technology. Kling promoted tackling questions about social and technical influences through empirical studies, especially examining ICTs in the settings in which they are used (Kling, 1994): “credible and compelling narratives about the social roles of technologies” (Kling, 1992a, p353). This thesis describes one such study. Kling and his colleagues found that the impacts of technology did not match the promises of computerization rhetorics, but that these rhetorics *did* influence what computers were developed and marketed to do (Kling, 1992a). He further suggested that the capabilities of computers, such as data processing, could catalyse, facilitate or impede social or organisational change, in ways that were not deterministic (Kling, 1992a).

Davenport and Horton use the computerization movement concept as a framework to investigate eGovernment studies (2005). Their approach reveals that eGovernment is promoted rather uncritically, especially in the EU where ideologies and technological

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<sup>28</sup>“Technological anti-utopianism” (Kling, 1994) and Counter-Computerization Movements (CCMs) are also discussed (Davenport and Horton, 2005; Iacono and Kling, 2001; Hara and Rosenbaum, 2008).



artefacts are tightly coupled. High level policy directives pass through layers of administration into local technology implementation: “Ideology mobilises resources, and shapes technology in many different ways” (Davenport and Horton, 2005, p3). Analytic frameworks which draw from the concept of computerization movements include Socio-Technical Interaction Networks (Kling, McKim and King, 2003; Meyer, 2006) and technological action frames (Kling and Scacchi, 1982; Davenport, 2005; Hara and Rosenbaum, 2008; Meyer, 2006; Meyer, 2007b). Further social informatics frameworks are described below.

## **2.6 The social and technical entwined**

The Computerization Movement studies described above demonstrate that technology does not follow its own independent trajectory, as in technological determinism; technology is influenced by the ideologies and preferences of the people and organisations who develop, finance and use it. The social and technical are not dichotomies, but are *fundamentally entwined* (Hutchby, 2001, p442). For Williams and Edge, the *artificial* divisions (boundaries) between social and technical unhelpfully circumscribe academic fields and limit the foci of studies of technology (1996, p890). Actor network theory (ANT) (Latour, 2005; Law, 1992) treats technologies (both material and immaterial) and people, as well as combinations such as organisations, evenly, as *actors*; technologies and systems are dynamic networks of heterogeneous, human and non-human, elements. For Silverstone, “the media and everyday life are in significant ways inseparable” (2002, p762). This is familiar to most of us in our experience of the Internet and broadcast media, and reflected in Hine’s description of the Internet as embedded, embodied and everyday (2015, p13). Bijker (2006) describes the co-development of government, democracy and technology. He notes that, in the twentieth century, *technocrat* became a derogatory term, indicating a boundary breach between technology and political decision-making (p15). However, technology and politics are interwoven: “our world is pervasively technological” (Bijker, 2006, p34).

### **2.6.1 The Virtual State**

However, technology is still a useful category for those of us investigating how the characteristics of ICTs influence their use. ICTs need a social infrastructure to exist and work; within this, their information processing powers can influence activities and organisations, (Kling, 1992). Understanding these factors can help people manage the ingress of ICTs into

their lives and organisations (Dunlop and Kling, 1991; Kling, 1992). This is particularly important in terms of democracy and government. In her *Virtual State* work, Fountain reacts against deterministic views of eGovernment and advocates an informed investigation of social and technical influences and impacts (2001), because changes to technical infrastructures have political consequences. For example, the Internet facilitates new relationships between government departments and opens new lines of communication between decision-makers and other actors and agencies, including the private and non-profit sectors; the increased availability of information favours those with good literacy skills and access to technology. However the direction of change is not outwith human control. Public servants need to understand and manage these changes, especially to be wary of inadvertently outsourcing policy-making. “Too few analyses of digital government treat technology and politics with equal seriousness. In most treatments of digital government, technology is viewed as if it alone would usher in a transformation of the state and as if politics and current institutions could be ignored in such a transformation” (Fountain, 2001, p250).

Bannister and Connolly (2011) show how the business of government is transformed by ICT, as applications support more complicated processes. For example, the complexities in contemporary tax and welfare systems would be inconceivable without the technology to manage the data and do the calculations. However, technology changes faster than anything else (law, administrative power, government and organisational structures, political arrangements, culture, society and human behaviour). Overlooking this temporal disjunction is a major cause of the failure of eGovernment projects and, according to Bannister and Connolly, disappointment in eParticipation.

### **2.6.2 Constructivism and trajectories of development**

For Woolgar and Grint, technology is always social, on some level; they see their approach – constructivism – as an inquiry into human nature (1991). They regard ICTs as designed to mirror or inherit human characteristics (Woolgar and Grint, 1991). Constructivist approaches give primacy to studying social and cultural influences on technology and refute technologically deterministic views of development as a straight and inevitable path to an artefact or system (Bijker, 2006; MacKenzie and Wajcman, 1999). Woolgar and Grint conceive technological artefacts as *texts*, growing out of the context in which they are

created and *always* open to interpretation (1991, p370). This constructivist view emphasises that, consciously or unconsciously, people always have a role in the development and use of artefacts. Technologies are problematised, and open to study, throughout their lifecycle. Softer constructivist approaches, such as the social construction of technology (SCOT) (Bijker, Hughes and Pinch, 1987; Bijker, 2006) analyse technologies as the outcomes of human activities (Bijker, 1995; Bijker, Hughes and Pinch, 1987; Bijker, 2006). For example, the social construction of technology (SCOT) framework works outwards from technological artefacts to identify the competing social circumstances which led to their design (Bijker, Hughes and Pinch, 1987; Williams and Edge, 1996).

### **2.6.3 Social shaping**

Grint and Woolgar's interpretivist constructivism was criticised as a kind of *social determinism* (Baym, 2010, p44), which did not take the role of technology seriously enough (Graham and Dutton, 2014, p7; Wajcman, 2014). The acceptable alternative was the social shaping of technology, which describes technological change as open-ended and unpredictable, but shaped by a range of social, economic, and political forces (Wajcman, 2014, p4). MacKenzie and Wajcman's influential anthology, *The social shaping of technology*, first published in 1985, collates alternatives to technological determinism. It includes position pieces, descriptions of alternative models, and empirical studies of technology using sociological and historical approaches. The *social shaping* theme describes the effects of technologies as *contingent* on their social context and the ways in which diverse and complex social and technical factors influence the lifecycle of technologies (1999, p4). For example, MacKenzie and Wajcman describe the extensive influence of defence sponsorship on the development of technologies, including nuclear power, air transport and electronics (1999).

MacKenzie and Wajcman suggest that social shaping can be seen as a *soft determinism* (1999, p3) because socially shaped technologies go on to influence society. The aim of social shaping research is to identify and investigate the complex and diverse influences that replace the simple cause and effect of technological determinism. Social shaping studies reveal that technologies develop in multiple paths and the directions of development are influenced by heterogeneous factors, including available skills, financial and material resources, organisational structures, and personal goals (Bijker, Hughes and Pinch, 1987;

Graham and Dutton, 2014; Hughes, 1983; MacKenzie and Wajcman, 1999; Williams and Edge, 1996). Development trajectories continue, and continue to fork, as technologies are changed through their adoption and use (Baym, 2010; MacKenzie and Wajcman, 1999; Wajcman, 2014) or are redeveloped to compete with rival technologies (Orlikowski and Iacono, 2001, p131). MacKenzie and Wajcman identify an anti-determinist imperative to understand and shape technological change, rather than to try to adapt to it (1999). Orlikowski and Iacono suggest that if we do not thoroughly investigate IT artefacts and try to influence their future, we risk fulfilling prophecies of technological determinism (2001, p133). While unsympathetic to social shaping, Schroeder shares these concerns, advocating a research approach which can investigate the impacts of science and technology (2007).

Williams and Edge (1996) narrate the discourses of the social shaping of technology (SST) in terms of their overlap with science and technology studies (STS). Social shaping studies are taken as a body of empirical evidence that *shows* technical and social factors influencing the development and use of technologies (1996, p857). Social shaping can be located in the numerous *choices* that guide the path of technology design, development, implementation, and use; available choices are contingent, shaped by their historical and immediate context (Graham and Dutton, 2014; MacKenzie and Wajcman, 1999; Williams and Edge, 1996).

For constructivists, people and groups shape technology and their identities are reconstituted in the process (Kline and Pinch, 1999, p114); this process is cyclical (Bijker, 2006). Authors identified with social shaping emphasise the *dualistic* and *reciprocal* relationships between artefacts and society: social shaping describes the ongoing co-evolution of technologies and society (Leonardi and Barley, 2008; Williams and Edge, 1996). For example, Swierstra and Waelbers (2012) identify ways in which technologies may influence people's moral actions, often in unintended and unforeseen ways, through mediating reasoning, options and even values. This dualist aspect of social shaping is also described as *mutual shaping* (Williams and Edge, 1996, p871), especially when applied to ICTs.

#### **2.6.4 Situated action**

*Situated action* is a temporal approach to investigating the mutual shaping of social and technical elements. Suchman developed this concept within her work bringing ethnographic

and ethnomethodological approaches to human-computer interaction (2007). Suchman is concerned with the verbs, rather than nouns. The question is not what is technical or social, but how is human/machine agency configured in a specific context? Echoing Giddens, each context has a history in which people's procedures and culture have become sedimented into an artefact (Giddens, 1984; Suchman, 2007). As humans and artefacts are mutually constituted, boundaries between them are not meaningless, but are *enacted* (cf. Barad, 2003). This is discussed further below (p61). Kitchin and Dodge describe this dynamic in terms of their focus on space as continually recreated (*traduced*) by software: "Space from this perspective is an event or a doing — a set of unfolding practices that lack a secure ontology" (2011, p16).

## **2.7 Assemblages**

In this thesis, participation spaces have technical and social elements, contexts and histories. They are both sociotechnical systems and abstractions, based on use. Online participation spaces are defined by their application, e.g. a blog or a specific social network, combined with the implementation or account associated with a case-study group. These online spaces are always experienced through computing systems and devices. A social shaping approach is taken to studying these elements and their relationships: participation spaces are the unit of analysis. Computing research needs to define its unit of analysis, as this is not obvious (Woolgar and Grint, 1991, p374). ICT devices are collections of technology (e.g. software and hardware) that require a certain amount of input and support from humans, and are usually part of a wider sociotechnical system (Orlikowski and Iacono, 2001). A number of concepts help to conceptualise the unit of analysis in this context, both in terms of boundaries and potential contents.

Participation spaces are conceived of as sociotechnical assemblages. Deleuze and Guattari's concept of the assemblage (2004, cited by Chadwick, 2013, p14) has been adopted by people studying technology use. Chadwick describes his hybrid media systems (see p49, above) as assemblages (2013). Suchman uses the concept of sociotechnical or sociomaterial assemblages to describe configurations of humans and artefacts seemingly acting together (2007). Suchman's focus is the locus of activity within the assemblage. Historical activities and social practices influence the nature of technical elements; and at each moment in the present, one or other element seems to have agency (Suchman, 2005). However, agency is

not a property of an individual element, but an effect of interaction. Leader (2012) and Suchman (2005) explain how these concepts are indebted to Barad's work on performative understandings: the differences and boundaries between humans and machines are continually shifting; boundaries exist as they are enacted (Barad, 2003).

Orlikowski also emphasises dynamism in her discussion of *sociomaterial assemblages* (2007, p1435). These combine material form with organisational practices. Orlikowski provides the example of Google search. Each search binds together the activities of a large selection of devices and material connections, with software (including algorithms) and content (such as databases). Each element derives its existence and processes from humans and social contexts. Each search is emergent and contingent, as various elements, as well as the search term, change over time. Reflecting the central idea of social shaping, the elements in assemblages are entangled and co-constitutive (Leader, 2012; Orlikowski, 2007). Sawyer, Crowston and Wigand (2014) use the term *digital assemblage* to describe the collection and use of ICTs for work. Based on their longitudinal study of the working practices of real estate agents in the US, they identify recurring patterns of technology use (artefacts, tasks and arrangements). Unlike workplace IT systems, these are not governed centrally or externally, but are ad hoc. The assemblages of individual estate agents are similar because of their shared tasks, especially their use of similar databases.

Bowker, Star and Suchman draw attention to *dispositifs techniques* within assemblages, using Foucault's concept of the *dispositif*: material and social (institutional and organisational) structures and processes which maintain the exercise of power (Foucault 1991, cited by Bowker, 2014, p116; Bowker and Star, 1999, p38; Suchman, 2014; Suchman, 2015). This is a particularly powerful concept for eGovernment and eParticipation, where digital technologies could potentially support or side-step these mechanisms.

### **2.7.1 Computing as a web**

Kling and Scacchi provide the *web model* to conceptualise computer systems (1982; Kling 1994; Hall, 2004). Each system is an ensemble of equipment, applications, and processes, with information processing capabilities. To function, the system requires (and thus includes) people, and their goals and associated skills. In creating and using computer systems, people apply elements of their social worlds: a computer system is likely to be

designed to do a task that reflects people's values and/or economic models. The web model includes physical and cultural elements, as well as human elements, and these are not meaningfully separable. This model also includes historical elements, as choices in the history of a system affect its characteristics at any one time. The nature and configuration of all these heterogeneous elements into a specific computer system is not separable from its context: the system is *embedded* in its context (Kling and Scacchi, 1979, p108; Sanfilippo and Fichman, 2014, p30). Kling and Scacchi identify what they call the *production lattice* (Kling and Scacchi, 1982, p16) as part of this web. This is the *macrostructural* context, consisting of the people, groups and processes around the system: e.g. economic and organisational structures, and people according to their role. Horton, Davenport and Wood-Harper describe the production lattice as "a complex of interests and infrastructure" (2005, p58). The web model was devised to focus attention on the full spectrum of details involved in computer systems, rather than extracting *manageable chunks* for analysis when problems arose (Kling and Scacchi, 1979, p107). In the production lattice concept, the web of computing model draws attention to infrastructural elements, both in terms of equipment and human work and skills; these may not be obvious but they are necessary for the system to function.

Hughes' *seamless web* concept of technologies as social, technical and cultural systems (1986) is similar to Kling and Scacchi's web model. The seamless web approach abstracts elements from their traditional categories (e.g. economic, technical and scientific) to focus on their interactions within the system. Hughes suggests these abstractions can be renamed to support analysis; linking this to the work of Callon, Latour and Law, he provides the example terms: "component and system, entity and network, and actor and actor world" (1986, p291).

### **2.7.2 Computing as a network**

Actor network theory, developed in parallel to Kling and Scacchi's web model, conceptualises technology using the metaphor of a dynamic network (Latour, 2005; Law, 1992). Each heterogeneous element becomes an actor or actant and these are considered as nodes within the network. ANT is concerned with the relationships between the nodes over time: the network is not a static object, but a metaphor describing actions (Latour, 2005; 2010) and power relations (Law, 1992). Like Kling and Scacchi's web of computing, the

elements of the network – material components and human interventions – become visible when it breaks down (Law, 1992). However, unlike Kling and Scacchi's model, ANT proposes that all the elements identified should be treated *evenly*: human elements should not get *special* treatment (Law, 1992). Reflecting constructivist ideas, actors include social and cultural elements. Further, each actor is also a network that could potentially be the focus for another study; each network could also be considered an actor in a larger network. In this, Law recognises a similarity to Giddens' notion of *structuration* (Giddens, 1984; Law, 1992, p9). Implementations of ANT map the actors in a network and their relations over time. This may involve diagrams or solely narrative analysis.

Berners-Lee invented the World Wide Web in 1989, making the technologies available royalty free in 1993 (World Wide Web Foundation). This quickly became the main way to access the Internet. However, its name added confusion to the term web as a metaphor to describe computing systems, inclusive of their infrastructure and social context. The *network* metaphor, successfully adopted by ANT, was also evident in the Network Society concept popularised by Castells (1997), and increasingly became used by social informatics researchers (Sanfilippo and Fichman, 2014). Lamb and Kling credit ANT with the insight that “people together with their technologies comprise social networks” (2003, p202). Kling, McKim and King brought the network metaphor into their analytic framework, the Socio-Technical Interaction Network (STIN) (2003). This combined all the elements of Kling and Scacchi's web models with network analysis techniques which focus on the interactions between actors and resources *within communities* (Sanfilippo and Fichman, 2014, p41). STIN is both a metaphor to understand a computer system as a network of heterogeneous elements and a framework for analysing the system (Kling, McKim and King, 2003; Meyer, 2006). In the case studies on which this thesis is based, each participation space is conceptualised as a STIN. The STIN analysis framework is discussed below (p79).

The term *multi-modal network* is also used to describe combinations of people and digital technologies that act together (Contractor, Monge and Leonardi, 2011; Sawyer and Hartswood, 2014).

## **2.8 Contents of participation spaces: digital technologies**

Having described participation spaces as sociotechnical assemblages, this section looks at



the likely contents and contexts of the spaces, introducing appropriate concepts and approaches. The first category of contents discussed, in this section, is *digital technologies*: material devices and software.

### **2.8.1 Affordances, materiality and software studies**

While Grint and Woolgar described technologies as social constructs (1992), Kling asserted that technologies had essential characteristics which influenced their use and effects (Kling, 1992 and 1992b). He provided the example of handguns (from outside computing): guns and bullets have a technical, material essence that wounds people, beyond social constructions of events. Kling emphasised his point by comparing guns with flowers: “It is much harder to kill a platoon of soldiers with a dozen roses than with well-placed high-speed bullets” (Kling, 1992a, p362). Hutchby (2001) uses Kling’s example in his proposal to apply the concept of *affordances* to artefacts. Affordances are characteristics of an object which frame possibilities for action independently of cultural interpretations.<sup>29</sup> Hutchby provides two further examples: comparing an analogue payphone to a fruit machine and an aeroplane to a bridge. While each pair may have some characteristics in common, each of them obviously supports acts that the other does not. In Hutchby’s formulation, the affordances of an object, which support or constrain actions, exist independently of people’s perception or understanding of these characteristics.

Affordances are characteristics of the *materiality* of an artefact, whether a natural characteristic or a result of its design (Hutchby 2001; Leonardi and Barley, 2008); materiality refers to properties in the physical world (Hutchby, 2001, p444). Thus *materiality* needs to be seriously considered in approaches which investigate the relationship between technologies and outcomes (Leonardi and Barley, 2008). Orlikowski and Iacono (2001) lament researchers’ focus on the lifecycle, effects, context and capabilities of IT, to the extent that artefacts become invisible in their studies. They call for theories specifically about IT artefacts, material and embedded. One approach which fulfils this remit is software studies (Bucher, 2012; Fuller, 2008; Kitchin and Dodge, 2011). Aspects of software, such as code, algorithms and production, become the object of investigations into the relationships between specific characteristics of software and their effects. Characteristics and effects are understood as embedded in the social world. Kitchin and Dodge’s *Code/Space* concept

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<sup>29</sup> Hutchby imports the affordances concept from the psychologist, Gibson (1979, cited by Hutchby, 2001).

encompasses the co-constitutive and dynamic relationship between software and space and social life (2011).

## **2.8.2 Networked publics**

The technical or material nature of a medium influences its content, or people's interpretation of that content. This is a central focus for contemporary social shaping studies of ICTs, reflecting a turn to the material in both communication and science and technology studies (Gillespie, Boczkowski and Foot, 2014; Lievrouw, 2014). Paralleling the traditional communication frameworks of text, production/producer, audience (Lievrouw, 2014: 45; Livingstone, 2009), boyd identifies ways in which bits shape (configure) *networked publics* (2010). The ways bits handle data shapes the digital properties and architecture of networked media and their effects in terms of linking people together: "The properties of bits regulate the structure of networked publics, which, in turn, introduces new possible practices and shapes the interactions that take place" (2010, p42). Networked publics are both collections of people *and* the spaces which help to bring them together. boyd summarises the potential influence of the digital base on networked publics as four affordances: "Persistence: online expressions are automatically recorded and archived. Replicability: content made out of bits can be duplicated. Scalability: the potential visibility of content in networked publics is great. Searchability: content in networked publics can be accessed through search" (2010, p46). Papacharissi recognises this as a kind of *remediation* of media theory: its traditional concerns are considered in terms of the dynamics and constituent elements of networked places, via digital, converged platforms (2010, p310-11).

## **2.9 Contents of participation spaces: people**

### **2.9.1 People as social actors**

People play key roles in sociotechnical systems. People are both actors and the source of non-human actors, such as organisations, standards, guidelines, processes, and practices. People are also the source of skills, work and content. In addition to Suchman's concept of situated action (1997) (p60, above), useful concepts which focus on people within sociotechnical systems include Lamb and Kling's conception of *users as social actors* (2003) and *invisible work* (Daniels, 1987; Star and Strauss, 1999). Invisible work is discussed on p76.

Following social informatics' human-centred approach to ICT systems (Davenport, 2005;

Sanfilippo and Fichman, 2014), Lamb and Kling problematised the term user (2003). They suggested that many people who designed and studied ICTs thought of users only in terms of their interaction with ICTs. However, most people who use ICTs identify themselves with the tasks that ICTs are supposed to support, e.g. as collaborating professionals, not as computer users. Lamb and Kling categorised most conceptions of users as *thinly socialized* (2003, p198), whereas organisations are social contexts (Kling and Scacchi, 1982; Orlikowski and Gash, 1994; Star, 2010). Further, each individual is involved in various overlapping social networks, both within and beyond the organisation (Contractor, Monge and Leonardi, 2011; Lamb and Kling, 2003). Lamb and Kling propose that people who use computers are more helpfully modelled as *social actors* with *affiliations, environments, interactions, and identities*. This model is particularly rich for eParticipation research. For example, in their framework for evaluating eParticipation, Macintosh and Whyte (2008) suggest that, for top-down initiatives, the institutional stakeholders include people who did not use the eParticipation mechanism and people with an interest in the results, as well as people who helped to set up and administer the system, and people who used it to participate.

### **2.9.2 Diverse people and in situ approaches**

Kling also characterised utopian and dystopian accounts of technology as future-oriented (1994). This is reflected in contemporary technology discourse which tends to focus on innovation (Edgerton, 2006; Orlikowski and Iacono, 2001) and the perceived preferences of a narrow demographic of young Internet users, rather than the day-to-day ICT use of the wider population. Any focus on early adoption is likely to necessitate a focus on people wealthy enough to access and become familiar with the latest technology; whereas, academics using in situ research methods, such as ethnography, are able to report on people's technology use, within or across age cohorts, location, culture, and other demographics: e.g. Miller and his colleagues' research into social media use across the world (Madianou and Miller, 2012; Miller, 2011; Miller et al, 2015) and boyd's work with teenagers in the US (boyd, 2014), as well as in situ studies of *technology in use* in organisations (Orlikowski and Gash, 1994, p183). Similarly, historians of technology, such as Hughes (1983) and Edgerton (2006), describe the complex relationship between technology innovation and its accessibility and adoption, over time, into everyday life.

## **2.10 Contents of participation spaces: content**

### **2.10.1 Mediation and media logics**

*Mediation* (also called mediatization) is a social shaping framework for media and communications technologies which focuses on the relationship between the character and dynamics of media and the communications they facilitate (Livingstone, 2009). It is *dualistic*, as people receiving communications actively create meaning (Silverstone, 2002). It is concerned with the materiality of media technologies, as well as communication practices, and other social influences, and these are mutually constituting (Lievrouw, 2014; Livingstone, 2009). Mediation “tries to capture the ways in which communications media transform social processes while being socially shaped themselves” (Madianou and Miller, 2013, p174). This absorbs Altheide and Snow’s concept of *media logic* (Altheide, 2004; Altheide and Snow, 1979, cited by Chadwick, 2013, p19). Media logic describes the combination of formats, customs, and affordances that shape communication within each medium, including individual genres. These seep into other areas of life: social, political, commercial (van Dijck and Poell, 2013, p3). Media logics are not passive but modify institutions and processes. The concept is inherited by both polymedia (Madianou and Miller, 2012; 2013) and hybrid media theories (Chadwick, 2013) (see p70 below and p49 above, respectively).

Because people are active participants in mediation, Silverstone considers them ethically responsible for their media choices. For example, if people passively accept stereotyped images of unknown groups (e.g. people who are distant or different), provided by the mass media, they are complicit in sharing a distorted world view (2002, p777). Lievrouw proposes a mediation framework based on three components of communication technology infrastructure – artefacts, practices, and arrangements – combined with three corresponding processes – reconfiguration, remediation, and reformation (Lievrouw, 2014). This reflects the traditional media studies framework of producer/ text/ audience.

## **2.11 Contexts of participation spaces**

### **2.11.1 Domestication**

Most early studies which demonstrated social shaping looked at technologies in organisational contexts – commercial or public sector contexts, such as education and government. In the 1990’s people working in the fields of anthropology, consumption, and

media studies began to focus on ICTs within the home (Haddon, 2006; Williams and Edge, 1996). These *domestication* studies look beyond the immediate adoption and use of ICTs to explore the ongoing development of their roles and meanings to people within their everyday lives (Dutton, 2004; Haddon, 2006; Hijazi-Omari and Ribak, 2008; Silverstone, 2002). This research area is especially relevant to eParticipation, as the majority of online participation by citizens is likely to take place within the home. Haddon's (2006) overview of domestication studies recounts that: Internet use is configured by the amount and quality of available time; expectations are conditioned by whether people have been introduced to the Internet in a work or non-work context.

As implied by the name, domestication frameworks focus on how people *tame* technologies, as well as defining the context as the home (Baym 2010; Dutton, 2004; Haddon, 2006). Baym (2010, p46) describes this (after Katz and Rice, 2002) in terms of moving from utopian and dystopian to syntopian perspectives, which view technologies as simultaneously enabling and disabling. Trajectories of development continue, as the use of ICTs evolves throughout their life at home: e.g. computers and laptops are moved between more or less private areas of the home as family life changes (Haddon, 2006). Hijazi-Omari and Ribak (2008) describe the domestication framework of *appropriation, objectification, incorporation, and conversion*.

The concept of *mutual shaping* is at the centre of domestication studies, as is the concept of *double articulation*, where media technologies are both objects and texts. Hijazi-Omari and Ribak explore this in their study of mobile phone use by young Palestinian women in Israel (2008). The material properties of the phone support unprecedented, long cross-gender conversations (p151), while the modus operandi of maintaining the phone both follows and challenges established gender roles. The phones are gifts (loans) from boyfriends; the call package reflects the seriousness of the (secret) relationship; the devices need to be hidden and recharged in secret. Parents could regain some authority over their daughters by buying them mobile phones and thus being able to monitor calls. Hijazi-Omari and Ribak also provide an overview of studies in which women and men use phones (analogue and digital) differently, concluding that this must be aligned to traditional gender roles, rather than the material affordances of phones (2008).

Orlikowski suggests a practice lens – *technologies-in-practice* – to investigate the impact of people’s day-to-day use of technologies on both technology and technology use (2000). This is expressed in terms of structuration (Giddens, 1984), rather than domestication.

### 2.11.2 Polymedia

Madianou and Miller’s polymedia theory (2012; 2013; Madianou, 2014) is a mediation framework focusing on the way that people experience media technologies as an *environment* of possibilities – potential devices and potential methods for communication. Each medium is defined relationally to all the other available media: “In conditions of polymedia the emphasis shifts from a focus on the qualities of each particular medium as a discrete technology, to an understanding of new media as an environment of affordances.” (2013, p170). A medium may be a device, such as a phone, or it may be a way of using a multi-function device, such as email or a Skype call. Polymedia theory arises out of Madianou and Miller’s longitudinal ethnographic studies of the role of ICTs in the context of families living apart due to international migration. Between 2007 and 2010, they worked with mothers in the UK and their left behind children in the Philippines and Trinidad (Madianou and Miller, 2012; 2013). Madianou conducted further research with UK-based Filipino migrants in 2010-2012, focusing more specifically on their use of smart phones (Madianou, 2014).

Polymedia has *preconditions*: people need to have access to several media, without cost or skill barriers, e.g. through prepaid payment packages for phones or Internet access. This context is *emergent* in Madianou and Miller’s fieldwork and not general or assumed. These preconditions enable choices to be based on the affordances of the medium combined with individual preferences for the situation, driven by considerations about emotion and control (2012; 2013). Text-based communications give the sender more control over emotional content, as faces cannot be seen or voices heard; whereas, webcams provide visuals and sound, including contextual information, in real-time: great for helping a child with homework, problematic for hiding tears. Asynchronous communications, like email and text, enable people to control *when* they communicate; the sender of an email cannot control when its recipient will reply. Media choices are also judged: parents complain about delays in their children’s replies to their emails, or about short replies to long emails; people may be judged negatively for using a text message for important or emotional content.

Polymedia inherits this idea of moral responsibility from mediation (e.g. Silverstone, 2002). The final element of polymedia theory is the extent to which media come to constitute relationships. Madianou and Miller's participants are often physically separated for years, while all their communications are mediated. The media supporting these communications impact on and become part of the relationships.

### **2.11.3 Resources**

Several of the frameworks described above draw attention to the influence of resources, such as finance or skills, on technology development and use. Kling and Iacono (1988) and Davenport and Horton (2005) describe computerization movements influencing the purchase and implementation of IT systems. In the Web of Computing model (p62, above), the *Production Lattice* concept encompasses the influence of economic structures (Kling and Scacchi, 1982). Discussing affordances, Leonardi and Barley suggest "that a technology's materiality does set constraints on and offer affordances for use. It is worth entertaining the idea that key constraints and affordances sometime push practice in one direction rather than another, if for no other reason than an alternative practice is too difficult or costly" (2008, p171). Madianou and Miller's preconditions for polymedia acknowledge the importance of the costs on people's choice of media.

## **2.12 Boundaries and visibility**

The participation space concept uses a spatial metaphor to describe contexts that may not be physical spaces. All participation spaces have certain characteristics of physical spaces, such as costs, boundaries and visibility, though these may be subjective. People's perceptions of these characteristics are also the subject of this research: perceptions of space as favourable to and useful for participation. This section focuses on the spatial characteristics of participation spaces, especially boundaries and visibility. Theories which are concerned with the relationships between perceptions of space and behaviour, such as Goffman's regions (1971), are useful to help understand people's behaviour in both online and offline spaces. Perceptions of boundaries and visibility become issues of privacy and surveillance. Mundane characteristics of space fade into the background, as infrastructural elements lose attention.

### **2.12.1 Regions and situations; audience, privacy and surveillance**

Perceptions of place help to establish the situation. A well-defined sense of place implies

certain behaviours (Harrison and Dourish, 1996; Leszczynski, 2015). Goffman uses the theatre as a metaphor to describe this (1971), dividing our social experiences into two, non-exclusive, regions: the *front region* (where performance is the focus) and *backstage* (where performers prepare and/or relax). The front region is observed: politeness and decorum are generally expected. The backstage region is observed only by the team: here, a wider, more casual range of behaviour is expected. Goffman's theory is based on his ethnographic studies of a community in Shetland (1949-51). Appropriate or acceptable behaviours change over time and culture for many of the situations he describes; backstage and front regions may shift or even swap. However, his metaphor abstracts what he observed in his studies into a powerful way to describe how certain behaviour is expected in certain situations. In particular, for participation and eParticipation research, it alerts us to the concept of backstage preparation work which supports more public events. This may be aligned to invisible work (p76, below), if attention is focused on the event.

Goffman's situations are defined by a sense of place and who is likely to be interacting or observing (1971). Offline, the physical boundaries of a space help to define the social setting: we probably have some idea of the type of people likely to enter a room; we can generally make a judgement about the extent to which we are observed and moderate our behaviour accordingly.<sup>30</sup> However, online settings are more challenging and it can be difficult to know how to act in a vaguely defined situation (boyd, 2011; Baym and boyd, 2012). "Having to imagine one's audience is a fundamental human problem rather than one distinctive to social media. But social media make it particularly challenging to understand "who is out there and when" and raises the potential for greater misalignment between imagined and actual audiences" (Baym and boyd, 2012, p323). Pearson uses the metaphor of a *glass bedroom*, reflecting both the challenge of defining the situation and the volume of domestic and personal detail on the Internet (Pearson, 2009; cf. Marichal, 2012).

Harrison and Dourish emphasise the social construction of privacy, beyond the issues of place and observation (1996). boyd emphasises the critical issue of power, through position within networks of observation and interaction (2011); control is a central concern: understanding the privacy/surveillance level of a situation is necessary to empower people

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<sup>30</sup> Though, the frequency of misunderstanding or misreading offline situations should not be underestimated.



to act confidently and appropriately. Social media privacy implementations may seem decidedly weak: on joining Facebook, people tend to find they already have a ghost presence, from acquaintances' email contact lists (Bucher, 2012, p145); and the Open Graph protocol can track Facebook members across websites which use certain plugins (Bucher, 2012, p98). Papacharissi and Easton identify new digital literacy skills to cope with the peculiarities of online spaces (2012), including *performative fluency*: the ability to continually establish meanings and appropriate behaviour in online, offline, and converged situations, leading to enhanced agency; but these skills are not widely held. Baym and Boyd discuss the reconfigured audiences and publics supported by social media, and the skills needed to navigate these contexts (2012). The events of the last few years have validated concerns about privacy and surveillance by Internet multinationals and government bodies (Fuchs, 2012; Morozov, 2011; Soghoian, 2012; Tufekci, 2014). The relationship between these concerns and conceptions of audience are beyond the scope of this review.

### **2.12.2 Email**

Some participation contexts may resist spatial descriptions. Harrison and Dourish identify "Placeful Discussion without Physical Space" in Use-Net groups (1996). Something similar may be found with email, as space is experienced very differently through an email client, than on a website. Email is particularly interesting in terms of its space, because it may be experienced externally to the World Wide Web, through an email client (a program, rather than a web browser), but relies on the Internet to exist. However, this distinction is rather outdated, as mobile access alerts people to the necessity of an Internet connection to read new emails, and both web-based and device-based programs present themselves as "apps". Email, while less aptly described as a participation space, may support the discovery of particularly rich data. According to Flyvbjerg, boundary cases like this can help to identify salient points: "Atypical or extreme cases often reveal more information because they activate more actors and more basic mechanisms in the situation studied" (Flyvbjerg, 2006, p229).

### **2.12.3 Infrastructure and information infrastructures**

While participation spaces are the unit of analysis in this thesis, the relationships between spaces are also vital to understanding the actions of case-study participants. Where participation spaces are used together by a case-study group, they could be described as

small scale *information infrastructures* (Hanseth, Monteiro and Hatling, 1996; Mongili and Pellegrino, 2014; Star 1999; 2010). The term *information infrastructure* emerged in the 1990's to describe scaled-up, geographically dispersed, computer networks (Hanseth, Monteiro and Hatling, 1996). Information infrastructures are assemblages: collections of information, such as lists, technical specifications and standards, combined with work practices (rules), and material elements, such as wires and devices (Mongili and Pellegrino, 2014; Star 1999; 2010). They are characterised by: the layered and integrated relationship between infrastructural elements and human organisation; their openness to various users; their existence across physical locations; and their evolution over time (Mongili and Pellegrino, 2014; Star 1999). Star identifies nine properties of infrastructure that are inherited by information infrastructures: embeddedness; transparency; reach or scope; learned as part of membership; links with conventions of practice; embodiment of standards; built on an installed base; becomes visible on breakdown; is fixed in modular increments, not all at once or globally (1999, p381-2). The visibility or invisibility of infrastructural elements is subjective and temporal. An infrastructure may be invisible as it supports tasks, but come to attention when something needs to be mended (Star, 1999); material elements, such as wires, are more visible than the standards and processes that enable infrastructural elements to work and work together.

Star (1999) and Pollock and Williams (2010) discuss the methodological challenges of studying these infrastructures, which combine transparent and visible elements, across locales and over time. Suggested approaches are ethnographic, including *strategic ethnographies*, which Pollock and Williams describe as “theoretically-informed, multi-site and longitudinal” (2010, p521). Distributed digital systems to support learning communities (*e-collaboratories*) are a focus of much information infrastructure work (e.g. Star and Rueda, 1994; Pollock and Williams, 2010). This is also the context in which Kling and his colleagues developed the STIN framework. Bowker and Star notice, more generally, information infrastructures functioning as “scaffolding in the conduct of modern life” (1999, p47).

#### **2.12.4 Boundary objects**

*Boundary objects* are information objects which support collaboration of people from different social worlds (Bowker and Star, 1999; Star, 2010; Star and Griesemer, 1989). The boundary indicates a shared space between the social worlds: an intersection (Star, 2010).

Bowker and Star describe the importance of objects (in general) in communities of practice, as becoming part of a community involves understanding that community's objects: their tools, symbols, texts, processes, routines. New group members learn the objects' importance and appropriate use (1999); the meaning of each object depends on the context, including the perspective of the group. Boundary objects are interpreted differently between groups, but have a robust identity which each group appreciates; this identity sustains the shared space, so that the boundary object can support cooperative work. The object affords collaboration without consensus (Clarke, 2010).

Star and Griesemer's original examples are the objects shared by various parties interested in natural history, including scientists, amateurs, technicians and museum curators. Their objects include field notes, museums, and maps. Later, Star again uses a map to explain how a boundary object supports diverse interpretations by different groups: "a road map may point the way to a campground for one group, a place for recreation. For another group, this "same" map may follow a series of geological sites of importance, or animal habitats, for scientists. Such maps may resemble each other, overlap, and even seem indistinguishable to an outsider's eye. Their difference depends on the use and interpretation of the object. One group's pleasant camping spot is another's source of data about speciation" (2010, p602). Barley, Leonardi and Bailey investigate the creation of boundary objects by automotive engineers to support collaboration across different groups (2012). The engineers design these objects (graphs and models) to be ambiguous, as they find that strategic ambiguity supports collaboration more effectively than clarity, especially in the long term.

Boundary objects are assemblages: their material or virtual nature is entangled with people's expectations and interpretations. Star asks us to read the boundary object "as a set of work arrangements that are at once material and processual" (2010, p604). Over time, people's interpretation of the object and their uses of it are likely to become more aligned, until it is no longer a boundary object (Star, 2010); it is domesticated. Star and Rueda (1994) identify the layered nature of an information infrastructure and instantiation across contexts (disciplinary and geographical) as challenges for collaboration and electronic participation in a large and distributed community of biologists. The information infrastructure is used by different groups and in different locations and contexts. Boundary

objects within the infrastructure are necessary to support the biologists' collaboration; creating and managing boundary objects helps to develop coherence across communities (Bowker and Star, 1999, p297). Where interpretations are essentially aligned across groups using the object, it disappears into the infrastructure.

### **2.12.5 Invisible work and informational work**

If infrastructure is invisible until it breaks down (Star, 1999), maintenance may be invisible work. Daniels introduced the term *invisible work* to describe work that was not necessarily valued as work, e.g. unpaid work, especially routine domestic work undertaken by women (1987). The term has been adopted by people studying technology, where it is used to describe a wide range of labour that is somehow unacknowledged and undervalued (e.g. Star and Strauss, 1999; Suchman, 2002). Bowker and Star draw attention to the political, social, and economic implications of the way work systems are categorised (1999, p229).

ICTs require *informational work* (Downey, 2014), which may be disregarded even by those undertaking it. Downey's students suggest that finding information is not work for them: information is found by Google or provided by people posting responses to queries online (p141-2). However, Downey identifies that informational work is crucial to making media technologies work. Away from their shiny headquarters, Facebook and Apple outsource content moderation to where labour is cheap (Chen, 2014). Downey identifies transferring and translating information from one context to another as informational work. The contexts may be media (e.g. between on and offline contexts) or audience (e.g. across cultures or disciplines). This kind of informational labour is an essential element of information infrastructures, as their value lies in sharing information across time and space (Downey, 2014, p159). It is also central to supporting participation: Escobar describes the translation activities of local council engagement workers, who convert council information into a usable format for local (offline) consultation events, and convert the consultation results back for the council (Escobar, 2011; 2013).

In studies focusing on ICTs, invisible work is often preparatory *behind the scenes* work (Star and Strauss, 1999, p9), such as organisation and managing cooperation (cf. p71, above). These are central tasks in participation (Escobar, 2013; Mercea, 2013). Mercea looks at the use of Facebook to support organisation by a Climate Camp and by an Occupy protest group

(2013). Organisers felt that their Facebook groups were primarily for mobilisation; however, Mercea found examples of people using the groups for local organisation or to try to feed into decision-making.

#### **2.12.6 Non-public contexts**

Star and Strauss remind us that no work is inherently invisible, but that various factors make some work more visible (1999). This is apt for Internet content studies, as some data is more visible than others. Some social media posts, including most Twitter posts, are public and can be accessed in big data quantities. Some social media, such as closed Facebook groups and Google Plus groups, are non-public: data collection requires permission from each group participant. Other Internet tools, such as email and messaging, are non-public or private. The term *non-public* is adopted from Nonnecke, Andrews and Preece, who use the term (and also *nonpublic*) to describe lurkers in discussion forums (2006). It is used here to reflect the uncertain privacy levels of online communications. These may be due to commercial elements (Bucher, 2012; Gillespie, 2012; Marichal, 2013), surveillance (Soghoian, 2012; Tufekci, 2014), or individual perceptions (p73, above). Private and public are experienced differently via Internet technologies like email and social media (Baym and boyd, 2012), due to digital media's persistence, replicability, and searchability (boyd, 2010; p66, above); they are not binaries.

For those studying activism and eParticipation based on content analysis, additional methods are necessary to contextualise public online data and account for non-public and offline communications. For example, Marichal's study of Facebook groups is hindered by his access to the groups' names and descriptions, but not the actual posts (2013). Quinlan, Shephard and Paterson's content analysis of public BBC online discussion forums, about the Scottish independence referendum (2015), draws some conclusions about online deliberation that may not apply in non-public online contexts, such as individuals' Facebook pages. Mercea's study of Climate Camp and Occupy activists uses interviews, as well as Internet content analysis, to understand the nature of organisation in the two cases (2013). Uprichard suggests that big data analysis is usually using social data and this should be reflected methodologically (2015). Wright suggests that quantitative content analysis may fail to pick up crucial nuances, such as humour, which is often key to the smooth running of conversations online (2012, p15).

### 2.12.7 Framing situations and frame analysis

A frame is a mental construct that defines what is going on in a situation (Johnston, 2002). Gregory Bateson explored the innate concept of framing in communication, where “metalinguistic and metacommunicative” signals convey information that helps to define a situation and guide reactions (1954, p138). Goffman is credited with introducing the term to sociology, using the concept to systematically analyse the way individuals organise their experience (1974). The frame helps to understand the social construction of a situation: *what is happening here?* Once we understand a situation, we are better placed to act or react. Goffman, following Bateson, uses the example of fighting: our reaction to people fighting is transformed when we understand this particular fight as play. As an ethnographer, Hine investigates the frameworks, categories, and distinctions her participants “draw on for understanding what the Internet means” (2015, p52).

Frame analysis aims to surface the personal and social constructs which support choices about behaviour. In social movement research shared beliefs and definitions (meanings) of situations are studied as *Collective Action Frames*; these are important in developing and maintaining group identity and supporting mobilisation (Snow, Rochford, Worden and Benford, 1986). Technological (action) frames approaches draw on Snow’s work (Hara and Huang, 2011; Snow et al, 1986) and on constructivists’ work to surface technological frames (e.g. Bijker, 2006). Technological frames combine social and technical understandings, including what a technology can do, its actual use, some of its characteristics, and surrounding discourses; these frames shape technology development and use (Iacono and Kling, 2001; Meyer, 2007b). This concept is at the centre of social informatics techniques, including computerization movement studies (Kling and Scacchi, 1982) and technological action frames (TAF)<sup>31</sup>; technological frames approaches provide systematic methods to record and analyse people’s ideas about technology as empirical data (Davenport, 2005; Hara and Rosenbaum, 2008; Iacono and Kling, 2001; Meyer, 2007b). Davenport extracts a four frame TAF implementation, primarily from Kling and Scacchi’s web of computing (Davenport, 2005; Kling and Scacchi, 1982): the researcher collects and analyses data about the situation according to the *here and now; where and when; design and implementation; and macro level* (Davenport, 2005). In this way, a study is built up, which is both holistic,

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<sup>31</sup> Also described as Technology Action Frames (Davenport, 2005)

covering all the necessary elements, and structured to link to bodies of theory. In this research, technological frames influence the use of participation spaces by the case-study groups. Frames are gathered through an ethnographic approach to data collection, and analysed within the Socio-Technical Interaction Network (STIN) framework (Kling, McKim and King, 2003).

### **2.13 The STIN framework**

Kling identifies a genre of non-fiction technology writing he calls *Social Realism* (1994). These accounts are situated and detailed narratives based on observation. However, they insufficiently draw out concepts and themes to link their insights into wider projects to understand technological change. In contrast, Kling and his colleagues established theoretical models which would link individual studies together into a body of knowledge that could be applied to understand new situations and plan for the future (Kling, 1994). Similarly, Becker describes how fieldworkers, interested in history and description, create accounts of the relations between elements, rather than descriptions of the situation: “to show how things hang together in a web of mutual influence or support or interdependence or what-have-you” (Becker, 1996, p56).

Kling and his colleagues developed a series of theoretical models and frameworks for supporting the transition between descriptive data, such as interviews or observation, and results that would be useful to wider communities (see p55 and p62, above). These frameworks were contemporary to, and drew from the Social Construction of Technology (SCOT) framework (Bijker, Hughes and Pinch, 1987; Bijker, 2006). They were developed in parallel to, but independently of, Actor Network Theory (Latour, 2005; Law, 1992). The Socio-Technical Interaction Network (STIN) approach expresses the ideas in the web of computing model and computerization movement studies more specifically as a framework for analysis (Kling, McKim and King, 2003; Meyer and Kling, 2002). The STIN approach is adopted for the Participation Space Studies in order to ensure that all relevant human and non-human actors are considered, and to draw out features of their relationships that inform the concerns of sociotechnical research, including social informatics and eParticipation.

The Socio-Technical Interaction Network (STIN) was developed by Kling and his colleagues

while studying information infrastructures, such as those designed to support collaboration of distributed academic departments (collaboratories). The STIN approach conceives of the system being studied as a sociotechnical network. All the heterogeneous elements involved in this metaphorical network are considered as nodes. These are likely to include people, groups, devices, infrastructures, resources, processes, content, and policies. The nodes are not considered as static elements, but as *interactors*. The networks are dynamic and the focus is on the relationship between elements. The STIN approach is “derived extensively from insights incorporated into Actor-Network Theory (ANT)” (Kling, McKim and King, 2003, p66). However, unlike ANT, while diverse factors are considered as interactors, they are not considered *in the same way*. Kling and his colleagues worked under the assumption that people and technologies have a different kind of agency; they were hesitant to attribute action to non-human agents (Kling, McKim and King, 2003; Meyer, 2006). As in technology action frames (p78, above), the history and trajectories of elements within the STIN need to be identified as they are constitutive of the present and future systems.

The STIN framework supports the researcher to identify these elements and explore the relationships between them through eight steps or heuristics (Kling, McKim and King, 2003, p57). These steps model the STIN:

- H1. Identify interactors (likely actors, their roles, and their needs);
- H2. Identify core interactor groups;
- H3. Identify incentive structures (such as a business model or motivation);
- H4. Identify excluded actors and undesired interactions;
- H5. Identify existing communication forums (communications systems or ecologies) and their relationships to this STIN;
- H6. Identify resource flows (following the money);
- H7. Map architectural choice points (technological features or social arrangement in which the designer has historically selected alternatives);
- H8. Describe viable configurations and trade-offs.

These heuristics can be thought of as a kind of checklist, designed to surface characteristics that Kling and his colleagues had identified as influential to the adoption and use of ICT systems. They are a teacher or experienced colleague saying “Have you thought about this?”



The STIN heuristics are embedded in thirty years of technology analysis. For example, *interactors* (H1) are understood to include non-human actors (Kling, McKim and King, 2003, p66); they also include non-material elements such as standards (Star, 2010), and processes and traditions, potentially including *dispositifs* (p61, above). Instructing the researcher to *group these interactors* (H2) draws attention to their interactions. The organisational relationships between groups of people may have a greater impact within the STIN than dyadic human-computer interactions (Contractor, Monge and Leonardi, 2011; Lamb and Kling, 2003).

While *incentive structures* (H3) are identified as business models at a macro-level, they need to be considered in terms of motivations at a more personal level. For example, academics adopting a new technology need to consider how time spent on this will impact on time available for activities which traditionally further their career, such as publishing papers (Suri, 2011). Kling et al use the phrases *communications systems* (H5), *communication ecologies* and *existing communication forums* to describe the participant's communications systems, including non-digital systems (p57-8). These are predominantly understood as networks of people, rather than devices and wires (Kling, McKim and King, 2003; Lamb and Kling, 2003).

One of the strengths of the STIN approach for studying ICTs is the direction to look beyond the network (Meyer, 2014), first by *identifying excluded actors* (H4) and then by identifying the wider *communication ecologies* (H5) which interact with the STIN. These potentially external elements can reveal crucial perspectives, both in terms of the impacts of a system and influences on its development and use. These considerations resonate strongly with eParticipation, where exclusion is a dominant concern and successful participation requires the interaction of diverse stakeholder groups. Identifying *undesired interactions* (H4) draws attention to the experiences supported by the system. These may be interactions that are poorly implemented or have unintended consequences. Interactions should also be considered in terms of privacy and surveillance (Kling, McKim and King, 2003, p57).

While it is useful to consider *resource flows* (H6) in terms of following the money, the researcher is also reminded to think in terms of resource dependencies and account taking dependencies (Eschenfelder and Chase, 2002; Kling, McKim and King, 2003). Resource

dependencies concern interactions which need funding, knowledge, skills, prestige or trust; account taking dependencies concern links or interactions based upon some kind of social rating (Eschenfelder and Chase, 2002, p102). In terms of resources, small, citizen-led participation groups may avoid financial transactions, but depend on volunteer time and skills. Activist groups encourage other people to become involved and those in power to listen to them: a group's reputation is an account taking dependency. Similarly, an online participation space may be visited more if its content is perceived to be up to date. This is an account taking dependency. Resource flows also draw attention to infrastructural elements, as sooner or later these need skilled attention and financial investment.

The seventh step, *map architectural choice points* (H7), is phrased in terms of a technical system, but also refers to social processes. The researcher is directed towards the history of the system, to look at the points where choices have been made which may be considered as forks in the path of the development of the system. Meyer provides the example of the founders of *Galaxy Zoo*<sup>32</sup>, who were designing an online system to support people to classify galaxies. By deciding to build this as a crowdsourcing platform, they made a vast task possible by a large number of people, mostly volunteers (Meyer, 2014).

The final step – *describe viable configurations and trade-offs* (H8) – reminds the researcher that the system is configurational, but that choices have additional outcomes. This step supports the researcher to think beyond the present system and consider potential changes (alternative configurations). In the Participation Space Studies, these last two steps are considered as focusing on the past and potential future, respectively.

The data on which STIN models are based may be gathered through various methods, including interviews, observation, and studying materials associated with the network (Kling, McKim and King, 2003, p66). If a STIN approach is established before data collection, the eight heuristics can be used to inform the design of instruments, such as the interview protocols. Meyer followed this approach in his study of the emergent use of digital photography by marine mammal scientists (2007); Suri followed this approach in his study of the emergent use of GIS by historians, combining it with a grounded theory approach (2011). However, the STIN framework can also be applied to support analysis of data, after

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<sup>32</sup> <http://www.galaxyzoo.org/>

collection (post-hoc), as in the Participation Space Studies.

In this thesis, the phrase *STIN approach* is used to refer to any research strategy which uses the Socio-Technical Interaction Network metaphor and derives some of its method from the STIN heuristics. *STIN framework* is used to describe the STIN heuristics, or categories or questions derived from them, to organise elements of research, either in data gathering or analysis. *STIN models* or *STIN studies* are the outputs of STIN analysis. The Participation Space Studies use a STIN framework to create STIN models (STIN studies). The STIN approach did not inform data collection.

The STIN approach was chosen to model participation spaces because it supports the exploration of social and technical aspects, especially the relationships between various factors, including groups of people. For example, both online and offline spaces are characterised by the extent to which they are private or observed (see p71). STIN models support exploration of both technical and social boundaries between public and private (Kling, McKim and King, 2003, p63). This is especially important in the context of eParticipation, where ideas about the relationships between public spaces and private lives are central to the discourse (e.g. Arora, 2014; boyd, 2010; Papacharissi, 2009; 2010). Crucially the STIN framework can also be used to model offline contexts. These may also be thought of as assemblages and STINs, resembling Chadwick's description of Habermas' coffee houses as hybrid spaces which integrate discussion and paper media (2013, p27).

## **2.14 Literature review conclusions**

The Participation Space Studies begin in a dynamic democratic climate, where people distrust politicians and government, and are losing faith in formal politics, but value democratic ideals, citizen-led activities, and issue-based politics. Researchers need to respond to this when identifying and investigating participation. In situ investigations, like this one, can reveal contemporary democracy in action and in context. An overview of eParticipation research describes the development from initial optimism towards contextual realism and the dominant models conceptualising democratic participation on the Internet.

This thesis focuses on the relationship between activities and contexts in citizen-led participation. It introduces the concept of *participation spaces* to describe these contexts. The participation space concept bounds participation contexts as sociotechnical

assemblages and draws attention to the various elements which constitute each space; participation spaces are composites of people, artefacts, processes, and expectations of behaviour. This approach enables the parallel study of diverse spaces, including online and offline contexts, sharing data gathering and analysis methods, as well as relevant theory. The literature review introduces sociotechnical concepts and approaches to support the exploration of the contents and contexts of the participation spaces. The theme of visibility and invisibility is established, accompanied by theoretical approaches to infrastructure, boundaries, work, and the influence of context on people's behaviour. The chapter concludes by presenting the Socio-Technical Interaction Network framework, devised by Kling, McKim and King (2003), which encompasses the sociotechnical concerns of the preceding literature review and provides a framework for modelling the participation spaces.

The next chapter, the methodology, describes three case studies which focus on groups acting to improve their local communities and environments. In the data collection phase, participation spaces become both research fields and subjects (the unit of analysis). Based on this data, combined with the concepts described in this literature review, participation spaces are modelled as Socio-Technical Interaction Networks. The following chapters reveal how the participation space concept supports the context-rich understanding of the online and offline spaces where participation in democracy takes place.

## 3 Methodology

### 3.1 Overview

This chapter describes how the interests and concerns of the literature review were consolidated into the design and implementation of the Participation Space Studies and the creation of STIN models of participation spaces. After restating the aims of the research, the chapter is divided into the methodological approach and the methods. The methodological approach describes the underlying perspectives and challenges which inform the choice and implementation of methods, including ethical considerations. The methods section describes the implementation of methods in the study. These are presented chronologically. After the literature review, the sequence of implementation was: selecting the cases, collecting data, analysing data to establish participation spaces, STIN analysis of participation spaces, workshops with participants, and further analysis. The outputs of each phase are stated within the timeline of methods, and each phase concludes with a short reflection, to contextualise any outputs. Reflection on the overall approach is reserved until chapter 8, “Reviewing the methodological approach” on p216.

### 3.2 Research aims

The aim is to gain a deeper understanding of contemporary citizen-led participation, in the contexts in which it happens: to identify and understand what people actually do to participate in democracy and how they use ICTs to support these actions. The subjects of three case studies are local, activist or community groups. The research aimed to develop an understanding of these groups, their activities and contexts. In terms of using ICTs, the aims were to find out how people associated with the groups were using the Internet and other media and technologies to support their work, and to try to understand this use, including how participants felt about it. Following Hine, “we want to understand what people think they are up to when they are using the Internet” (2015, p27).

The research focused on the relationship between participation activities and contexts, describing the contexts as *participation spaces*: the sociotechnical contexts where participation takes place. This innovative conception supports the investigation of online and offline activities, while focusing on the conditions specific to each space, as well as the relationships between spaces. The research aims are summarised in three questions:

1. What spaces are considered, used or created for participation, by people trying to improve their local communities?
2. What characteristics of these spaces influence their use as participation spaces?
3. What characteristics of people and groups influence their choices and uses of participation spaces?

### **3.3 Methodological approach**

#### **3.3.1 Case studies**

Case studies were chosen as the research strategy because the goals were exploratory and because case studies capture context (Flyvbjerg, 2006). Instances of participation were explored through case studies of people and groups trying to influence matters which concerned them: e.g. protecting and improving the local environment, preventing perceived injustice or unwanted change. Flyvbjerg advocates learning through specific cases as the best way to understand the viewpoints and behaviour which characterise the wider phenomenon (2001, p83). Case studies are one of the central methods for sociotechnical research, especially research concerned with organisations. The following papers present theoretical or methodological developments based on case studies: Barab, Schatz and Scheckler, 2004; Bennett and Segerberg, 2011; Chadwick, 2013; Davenport and Horton, 2005; Eschenfelder and Chase, 2002; Flyvbjerg, 2006; Hara, 2008; Harper 2000a; 2000b; Kling, 1992; Kling, McKim and King, 2003; Lamb and Kling, 2003; Mercea, 2013; Meyer, 2006; 2007; Orlikowski and Gash, 1994; Scacchi, 2005; Suri, 2011; Walker and Creanor, 2009.

Three cases were chosen in order to cover a variety of contexts, while creating studies of sufficient depth to support stable results. The investigation and analysis were designed to generate richly detailed descriptions of each case, based on the triangulation of multiple methods (Snow and Trom, 2002, p147). Predominantly qualitative techniques were chosen, as the focus was on the experiences of a small number of people.

#### **3.3.2 Sociotechnical approach and unit of analysis**

The research aimed to identify where people participate, on and offline, and explore how people identified, defined, and created spaces in this context. These spaces, within each case study, are conceived of (bounded) as participation spaces and are the units of analysis

for this research. The case studies followed a sociotechnical approach to studying eParticipation, aiming to create studies that fit, methodologically and theoretically, with the traditions of social informatics and social shaping described above (from p53). To this end, technologies were identified and analysed as sociotechnical assemblages, inclusive of people, processes and organisations (p61, above). The analysis focused on the relationships and interactions between all the relevant elements of the context, including the availability and affordances of technologies, the resources required or available to participants, cultural and historical influences. These contexts – the participation spaces – were defined by action: people participating (acting) to achieve the aims of their group.

Each participation space was identified according to an online or offline space where participation took place, within the case-study period. Each participation space has features relevant to location, medium, material and/or virtual characteristics, as well as the people and groups using the space, and their roles, rules, and motivations. The research aims to explore the ways in which people's *interpretations of spaces* (situations) affected their *participation* within these spaces. Participants' interpretations reflect their technological frames (p78, above).

### **3.3.3 Ethnographic approach and research perspective**

This research is not, of itself, *an ethnography*, but used ethnographic concepts and methods in order to put people, and their organisations, at the centre of the investigation, trying to understand groups from the inside. Contemporary democratic spaces were investigated by entering the participants' contexts (on and offline), observing people in action, and talking with them about their participation. The goal was to create socially rich understandings of participants and groups, respecting Lamb and Kling's conception of users as social actors (2003), and reflecting the ethnographic goal of understanding *how activities happen* (Hine, 2015, p55). The models of participation spaces would be built within an understanding of what participants' actions meant to the participants and their groups. These details clarify what is going on and create models that can be re-consulted. The research perspective is derived from the perspectives of participants, learned by the researcher, combined with the perspective of the researcher, which develops through the study (Hine, 2015; Van Maanen, 1979; Wang, 2013).

Ethnography is described in terms of *immersion*: the researcher experiences participants' activities in context (Hine, 2015, p55), to a depth of involvement that supports understanding people's actions and experiences, through a thorough understanding of their context (Miller and Slater, 2000). Reflecting this immersion, this research aims to gain a reasonable level of understanding, through actively being within the participants' contexts. However, due to the relatively short timescales of the fieldwork (compared to anthropological ethnography) the depth of this understanding is limited. Miller, a highly experienced anthropologist studying technology use, recommends fieldwork over at least 15 months (2011). In his experience, even after a year, the data does not reach a level of saturation, as new experiences cause the researcher to come to a different understanding of the situation. In the Participation Space Studies, the fieldwork covered a limited period of time in the life of the case-study group. Cases were dynamic, including events which changed the group and its activities. However, not all cases included a comprehensive range (or cycle) of participation processes. Case Studies 1 and 2 involved fieldwork over about six months, each (mostly consecutively); Case Study 3 looked back historically over about seven months. Much of the fieldwork, especially for Case Study 2, took the form of online observation; the researcher did not live, like an anthropologist, in the field for six months. In order to extend the researcher's experience of the case-study groups, materials from beyond each case-study time period were included. These contributed to understanding the groups' contemporary contexts by including external perspectives and historical, sometimes foundational, information.

Ethnographic approaches are adopted by researchers from outside anthropology to build understanding of people's activities in context. Ethnographic processes associated with IT tend to be shorter than anthropological enquiries (Barry, Born and Weszkalnys, 2008; Harper, 2000a; Luff, Hindmarsh and Heath, 2000). These have been criticised for their appropriation of the term and its methods, especially where the purpose of the enquiry is part of commercial production processes (Dourish, 2006; Barry, Born and Weszkalnys, 2008; Suchman, 2002; 2007b). Dourish and Suchman question the relationships between stakeholders in these ventures, including designers, ethnographers, participants (e.g. users or consumers) and those paying for the process. Suchman suggests that commercial ethnography in the technology industry should be part of a wider participatory design



process, recognising participants' involvement as a process that continues through implementation and beyond (2002). This informs the workshop phase of this research, which is designed to share and test insights from the case studies with participants (p94).

### **3.3.4 Workplace and organisational studies**

The Participation Space Studies, while concerned with ICT use, were designed to investigate citizen-led participation, in Scotland. While ethnography has been associated historically with anthropologists travelling to distant places to learn about cultures distinct from their own, this is no longer considered a defining factor (Augé, 1995; Dourish, 2006; Fox, 2004; Suchman, 2007b). Yanow, Ybema, and van Hulst distinguish organisational ethnography from academic anthropology (2012). They suggest that early anthropology was sponsored by colonial administrators to facilitate their work (cf. Dourish, 2006) and thus a subset of organisational ethnography from the beginning. Perhaps more helpfully, they note the rich history of organisational ethnography as a resource (Yanow et al, 2012). For Harper, the ethnographer's goal is to *uncover the organisation* in an organisation (2000a, p241). The researcher needs to come to an understanding of the information life-cycle within an organisation and understand this from the participants' points of view.

As the case-study groups are organisational and collaborative contexts, organisational and workplace studies are specifically relevant. These focus on collaborative activities, specifically the situated use of digital and paper technologies (Luff, Hindmarsh and Heath, 2000). The studies are naturalistic, ethnographic studies, aiming to create descriptions of people's activities, within the social and technical context of work. While the studies tend to be associated with supporting additional use of technology, many reveal and reconsider underlying concepts of work, especially collaboration (Luff, Hindmarsh and Heath, 2000). Dunlop and Kling identify the importance of building understanding of the *opportunities and dilemmas* of increased use of digital technology (1991b, p29). This research aims to contribute to contemporary deliberations about concepts underlying participation, such as publics and inclusion (p45 and p43, above).

Organisational studies are central to the development of social informatics and inform much of the theoretical approach to the working relationship between people and technologies discussed in the literature review. Most of Kling's work may be described this way; also the

work of Orlikowski, Star, Suchman, and their collaborators. Their studies aim to reveal and understand the *actual processes* involved in work, and the place of technology within these processes (e.g. Kling and Scacci, 1982; Yates and Orlikowski, 2002). This is paralleled by the aim of this thesis to identify the day-to-day activities of participation. This approach to eParticipation is in contrast to eParticipation and eGovernment implementations which focus on the features of the latest popular technology. Bannister and Connolly note the tendency of eGovernment actors (governments, professionals, scholars) “to embrace the latest technological developments before older ones have been fully exploited or in some cases even fully understood” (2011, p1).

### **3.3.5 Field location and ethical considerations**

Local fieldwork brings potential challenges in terms of the participants’ social networks overlapping with those of the researcher, during the case studies or in the future. This is also the case for online fieldwork, especially where the researcher is visible as a participant. Local and online, the boundaries between fieldwork and the rest of the researcher’s life are permeable. Beaulieu and Estalella look at the practicalities and ethics of online fieldwork, in particular the challenges of *contiguity* and *traceability* (2012). For example, the anonymisation of participants’ online posts needs to account for the traceability of Internet content via search engines (cf. boyd, 2010). Hine and Kendall also encounter and discuss these issues (Hine, 2011, 2015; Kendall, 2002). Particular attention needs to be paid to individual perceptions of whether online content is public or private. Beaulieu and Estalella suggest that public and private need to be considered on a scale that allows for the context, including time, rather than as a binary (2012). This is reflected in this thesis by adopting Nonnecke et al’s term *non-public* (2006; cf. “Non-public contexts”, p77). These fieldwork contexts highlight the researcher’s responsibilities to the participants to be respectful and transparent. Ethical considerations and challenges continue throughout the research and beyond: they are not bounded by consent forms (Beaulieu and Estalella, 2012). However, ethical procedures, including consent forms, support researchers to identify issues and discuss ways to address them. They also provide information for participants and an audit trail for the university.

### **3.3.6 Ethnographic methods**

Participant observation and interviews were chosen as the central methods, because they

provide opportunities for immersion in the participants' worlds (Van Maanen, 1979). Additional methods provided information from the edges or beyond the groups, including small surveys and reviewing public materials. In this way, data was triangulated (Hara 2008; Snow and Trom, 2002). Observation has been used in similar ethnographic studies of participation and in organisational research: Lichterman observed local environmental groups in the U.S. (2002); Escobar observed (shadowed) participation workers in Scotland (2011); Matthews observed Community Planning Partnerships in Scotland (2012); Harper observed practices at the International Monetary Fund (2000a and 2000b).

The observation in this study was conceived of as *participant observation*. Participation in the groups' activities would help to put participants at ease with the researcher's presence, so that they would behave naturally. It would imply, rightly, a sympathetic perspective. It would also increase the extent to which the researcher experienced activities and contexts as group members did. Lichterman, studying social movements in the US, identifies his method as participant observation: he takes part in the group's activities, e.g. by helping to gather petition signatures (2002). This helps him to understand activities through doing them, demonstrates commitment, and helps to gain trust. Harper felt that in-depth observation, including antisocial hours and travel, transformed him into an *insider* (Harper, 2000a, p252). This encouraged people within the organisation to take his ethnography more seriously. The danger here is to cross the line between maintaining awareness of the researcher's influence on the context (reflexivity) and acting in a way that changes the group's practices, potentially contaminating the data. For Hine, these are the inevitable responsibilities and challenges of being present *within* the study (2015, p20).

Interviews are a key ethnographic method, as they put participants at the centre of the investigation: participants are a good source of information about their actions, motivations and perspectives (Blee and Taylor, 2002); practitioners are invaluable as entry points to investigating practice (Escobar, 2011; Rapley, 2012). Interviews can also convey to participants that their perspectives are important, which may encourage their further regard for, and participation in, the research (Harper, 2000a). However, interviews are necessarily subjective, both in terms of the information provided by the interviewee and its interpretation by the interviewer (Fielding and Thomas, 2001; Van Maanen, 1979). An interview may be perceived, by both (or all) participants as a rather unnatural situation:

Atkinson and Coffey describe interviews as performances, in which narratives are enacted and “informants’ construct themselves and others as particular kinds of moral agents” (2001, p808). Van Maanen divides his data into *presentational* and *operational* (1979, p544), where presentational data is derived from activities performed for the researcher, such as interviews. Both types of data are equally valid, but reveal different aspects of a situation. A more conscious presentation by an interviewee is likely to present an idealised or normative account, providing usefully abstracted data, as well as information about the interviewee’s understanding of a situation (Van Maanen, 1979). Atkinson and Coffey observe that activities involving talking are likely to reveal meanings and memories (2001). Comparing interviews and participant observation, Atkinson and Coffey suggest that an interview is *an event* (2001, p812). Following Goffman (p71, above), all activities can be considered to be some kind of performance, especially those openly observed by the researcher.

In the Participation Space Studies, an informal and conversational approach was taken to interviews, aiming to elicit the interviewee’s account and perspective in as natural a manner as possible (Rapley, 2012). This included avoiding the role of the *overly distant or neutralistic* scientist (Rapley, 2012, p549) by taking part in the conversation and expressing agreement. It was important not to close down the conversation by implying any negative judgements of the interviewee’s words. Fielding and Thomas suggest that the main emotion to show is *interest* (2001). Following Rapley, the interview was seen as a *collaborative* encounter to explore the case-study group’s activities with the interviewee as an expert in this: someone who participated, or even instigated participation (2012).

Interviews have a strong history within sociotechnical research and research into participation. In the field of social informatics, Lamb and Kling interview people working in 26 California firms about their professional use of online resources (2003); Kling, McKim and King develop the STIN framework while working with data from *ethnographic* semi-structured interviews with people involved in collaboratories (2003, p58); Eschenfelder and Chase’s STIN study uses interview data, combined with a questionnaire, observation, and background documents (2002); Meyer creates interview protocols based on his STIN framework to investigate the emergent use of digital photography in marine mammal science. Examples from participation and eParticipation research include Brodie et al’s investigation into people’s experiences of participation (2011); Chadwick’s study of 38

Degrees (2013); Hara's (2008) study of online activist group MoveOn.org (2008); Mercea's studies of a Climate Camp and an Occupy group (2013); and Wang's deep, multi-sited ethnography of Chinese teenagers using the Internet (2013).

### **3.3.7 Socio-Technical Interaction Network framework**

The traditional output of ethnography is a narrative account. This enables the ethnographer to include all the necessary details, including the observed behaviour and the motivations and meanings that are understood to guide it. The account includes the necessary detail for its reader, or audience, to understand the ethnographer's position and potentially adjust their perspective accordingly. Narrative accounts may be further developed – structured or abstracted – to support analysis across contexts (Fishwick, 2014; Kling, 1994). In this research, a Socio-Technical Interaction Network framework (p79) was used to create models of each participation space, in order to support analysis across participation spaces and across case studies, as well as emphasising links to theory. The final participation space models were iteratively abstracted from more detailed accounts, gradually losing their resemblance to ethnographic narratives.

The outputs of the STIN analysis, the models of participation spaces, consist of structured text and diagrams. Models move the research from the descriptive to the analytic and help to identify insights aligned to other people's studies and to theory. Models are a central method within computing, as they combine structured observation with analysis of information flow (Fishwick, 2014). Diagrams and timelines of participation spaces are essential elements of the STIN models in this implementation. Diagrams encapsulate the network *metaphor* at the centre of the STIN (see *Figure 3: Ward Anti-Cuts' Facebook Page – Overview of Interactors*, p95). The diagrams are not directed graphs: Kling, McKim and King note that the “networks cannot always be drawn as directed graphs” (2003, p48).

There is a strong parallel between the use of STIN diagrams in this study and Clarke's use of situational maps with grounded theory (2005). Clarke's list of the advantages of using maps (after Turnbull) reflects the role of the STIN diagrams in this research (Turnbull, 2000, cited by Clarke, 2005, p30): moving from text to diagrammatic representations ruptures our normal ways of working, supports reflexivity and provokes us to see things afresh; maps work as *discursive devices*, for understanding assemblages and making connections

(relational analyses); maps surface questions; maps are great boundary objects, “handling multiplicity, heterogeneity, and messiness in ways that can travel” (Clarke, 2005, p30; Star and Griesemer, 1989). Clarke identifies the most salient reason for using STIN diagrams in this study: it is easier to move around in maps than in narrative text and this is necessary for analytic work (2005, p30). There is also a parallel between the use of diagrams in this research and the rich pictures created within Soft Systems Methodology (Checkland, 2000), both as aids to understanding situations and tools to share and check this understanding with participants<sup>33</sup>. Checkland echoes the STIN focus on interaction (relationships between elements) in his observation that “pictures are a better medium than linear prose for expressing relationships” (Checkland, 2000, p22). Barab, Schatz and Scheckler found that conceptualising an online community as a STIN helped to include the offline elements essential to its success and to share their ideas across the people and teams involved in the project (2004). In the Participation Space Studies, diagrams were useful as a way to share the models. The STIN implementation, including diagrams, is described in “Adapting the STIN approach” on p107.

### **3.3.8 Sharing and validating outcomes**

In the Participation Space Studies, the participants are considered to be experts in participation in the contexts of their lives and their group, and presumed to have knowledgeable and valuable opinions about the outputs of the research. As some of the data collection methods are collaborative, participants are considered to have invested in this research: interviewees have volunteered their time and groups have opened their processes to scrutiny. In turn, participants may benefit from insights generated by these studies. As the participants’ opinions are highly valued, it matters whether the research outcomes are recognisable and meaningful to them. The narratives of participation spaces, created within the research, should be familiar to participants, and not jar with their experience. If the picture contains major misunderstandings or misconceptions, this would indicate that the results are likely be flawed.

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<sup>33</sup> Patching provides examples of rich pictures, including *Rich Picture of Vice in a London Area* (Patching, 1990, p59, re-printed from Flood and Carson, 1993) and *The Distance Learning Situation* ((Patching, 1990, p60, re-printed from Wood-Harper, Antill and Avison, 1985).

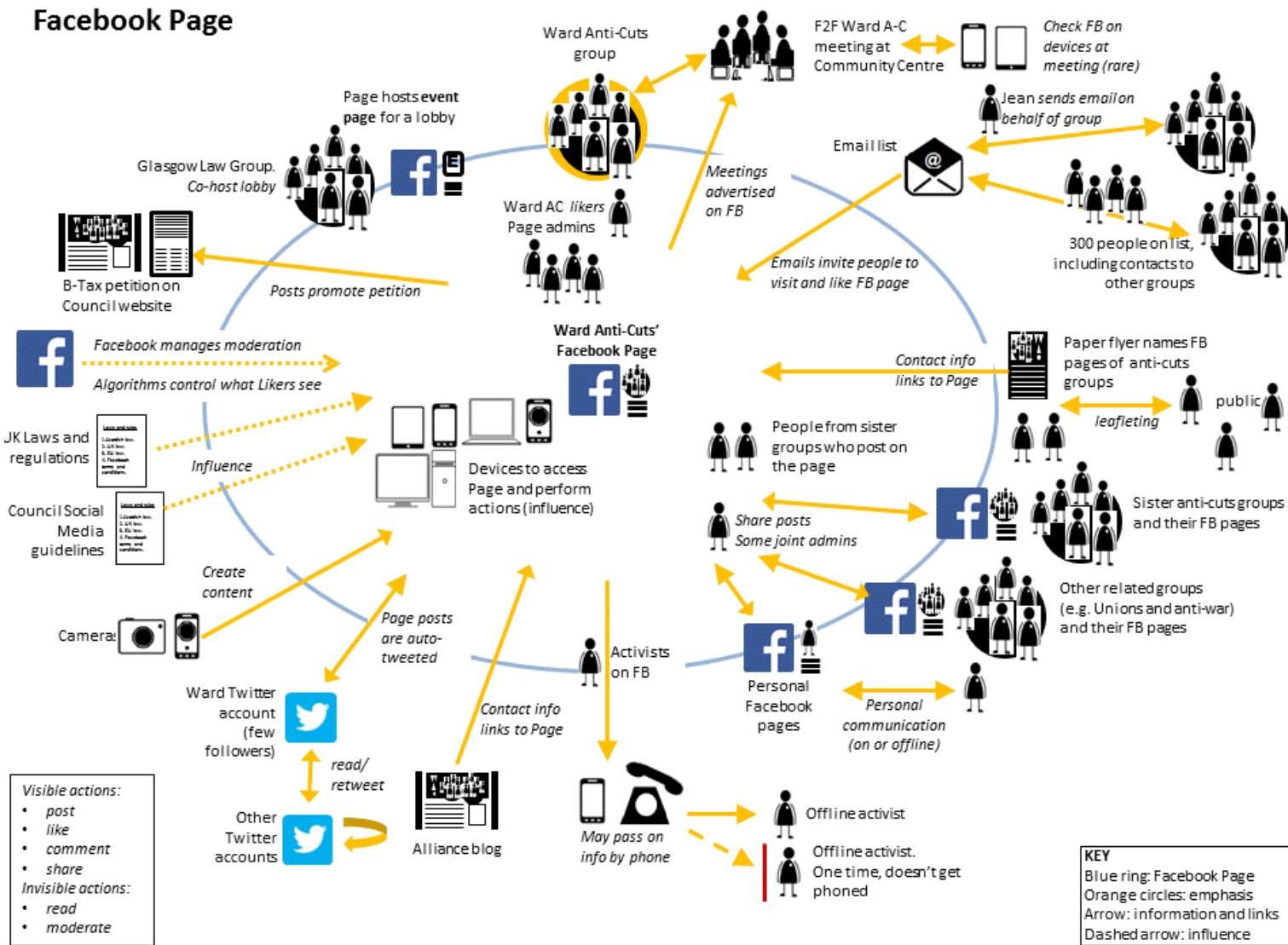


Figure 3: Ward Anti-Cuts' Facebook Page – Overview of Interactors

To these ends the STIN models were used, innovatively, to collaborate with participants around initial results: to share insights with the case-study groups and get feedback about the information presented. STIN diagrams of participation spaces were shared with participants in workshops. These workshops functioned as both gentle interventions and validations. As interventions, the aim was to share an overview of the groups' activities, providing a new (sociotechnical and external) perspective, in an engaging format (STIN diagrams of participation spaces). Ideally, case-study groups would find this a useful exploration of their situations and work. For the researcher, feedback from participants would clear up misconceptions, and provide additional information. Presuming the participants recognised the models, the research would gain a measure of validation. This also reflects the potential role of rich pictures in soft systems methodology: Checkland describes a similar style of validation: "As far as use of such pictures is concerned, we have found them invaluable as an item which can be tabled as the starting point of exploratory discussion with people in a problem situation. In doing so we are saying, in effect 'This is how we see this situation at present, its main stakeholders and issues. Have we got it right from your perspective?'" (Checkland, 2000, p22).

Paper-based participatory methods support people to interact with information and talk through their ideas. Brodie et al's study of participation included both activity-mapping of participation (activities, places and spaces) and creating visual timelines within a life-story mapping approach (2011, p78 and 81). These enabled respondents to create pictures of their participation, rather than researchers leading the process through questions. Similarly, the STIN diagrams would enable workshop participants to discuss their use of participation spaces between themselves and introduce information that was important to them, rather than that requested by the researcher. In this way, the diagrams also resembled Gaver, Boucher, Pennington and Walker's design probes (2004).

### **3.3.9 Summarising the methodological approach**

The methodological approach centred on case studies of citizen-led participation, aiming to investigate community and activist groups and their use of technologies, in situ. The research was structured in terms of where participation took place. The locations or contexts of participation were identified as participation spaces; the participation space is the unit of analysis in this research. An ethnographic approach was taken to data collection,



centred on participant observation and semi-structured interviews. These methods brought ethical challenges which were addressed through emphasising respect and transparency, and following university procedures. A Socio-Technical Interaction Network (STIN) approach supported the analysis of case-study data: it structured records of the relevant elements of each participation space, and the relationships between them, over time. STIN diagrams of participation spaces were shared with case-study participants in workshops, in an intervention and validation phase, sharing research outcomes and gathering feedback.

### **3.4 Implementation**

In the second half of this chapter individual methods are described in approximately chronological order of implementation. Each section ends by noting the outputs and limitations of that phase. More detailed information about the implementation is provided in the Appendices.

#### **3.4.1 Establishing the three cases**

Criteria for potential cases were established based on a broad understanding of democratic participation as *acting to influence and improve communities and environments* (p38), within a group format. The primary goals of potential case-study groups would be to influence matters *external* to the group, rather than self-development. As the research was an investigation of *grassroots* participation, groups needed to be *citizen-led*, rather than professional, and not aligned to political parties. In order for the researcher to be able to participate honestly, their goals should not be anti-social and their activities should be legal. In order to establish baseline similarities, it was decided to focus on local groups within Scotland: all sharing the contemporary political landscape of Scotland, and most participants would be volunteers. Restricting cases to Scotland was practical for in situ observation. The groups should have some online presence. Diversity between the groups was also important, including at least one rural and one urban group. Ideally groups would include people from diverse backgrounds, within or across the cases. The groups should use a variety of participatory methods, and have diverse goals.

Potential cases were identified through personal networks and searching the Internet. Once the above criteria were met, the support of a contact within the group was the deciding

factor in choosing the three case-study groups<sup>34</sup>. This contact consulted other group members. Where agreement was established, the group became the subject of a case study. The researcher was introduced to these three contacts via third parties with an interest in the research.

#### **3.4.1.1 Case Study 1: Ward Anti-Cuts (Ward AC)<sup>35</sup>**

Ward Anti-Cuts (Ward AC) are a local anti-austerity group in one of Scotland's main cities. The group initially convened as concerned residents, in 2011, to fight privatisation of City Council services; then continued to meet and act against privatisation and cuts. The group meet twice a month. The case study ran from November 2012 to April 2013. Ward AC had a presence on a blog shared with other local anti-cuts groups, an email list and some presences on social media. During the case-study period, they were primarily concerned with the effects of austerity, the implementation of the bedroom tax, and personalisation budgets for care.

#### **3.4.1.2 Case Study 2: Hill Community Action Trust (HCAT; the Trust)**

Hill is a rural village in central Scotland. Hill Community Action Trust was set up to manage an environmental compensation payment to the village from a nearby city council. While establishing investment for this sum, HCAT's work is supported by external funding, including Lottery funds. Projects focus on community development, sustainability and renewable energy. HCAT is steered by volunteer directors and employs a salaried Action Manager, Monty. During the case-study period, December 2012 to September 2013, HCAT were fundraising and working on projects in and around the village, with local volunteers. They had an office in the village and various online presences, including a blog, a website, and social media accounts.

#### **3.4.1.3 Case Study 3: City Primary School (CPS)**

Parents of children at an urban primary school campaigned against the Old High School building being sold and converted into studio flats. The primary school was overcrowded and parents had hoped the High School building would provide extra space. Parents were also concerned about proximity, as the building sits *within* the primary school's curtilage. The initial campaign took place between May and November 2013. The parents succeeded

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<sup>34</sup> Jean in Case Study 1; Monty in Case Study 2; Rachel in Case Study 3.

<sup>35</sup> Names of case-study groups, participants, and related organisations are pseudonymous.

in persuading the City Council to vote against the developers' planning application. The campaigners used a non-public Facebook group and an email list, which were private from the researcher. The case study was largely historical, with interviewees looking back over the campaign, combined with extant online coverage.

#### **3.4.1.4 Outputs and limitations**

The outputs of this phase were agreements with the three case-study groups to proceed with the research; a primary contact for each group; and initial data collected about the groups and their campaigns. In selecting these groups, the characteristics of the study became necessarily limited to those of the groups: most participants were over 35 years old and white; none of the groups were ambitious in their use of technology. As all case studies involved a personal contact, this may have influenced participants' actions when the researcher was present. In particular, contact with case study 3, City Primary School, came via involvement with Hyperlocal Paper, which had publicised and supported the campaign. However, apart from increasing access to information, this connection is unlikely to have fundamentally changed the information provided: all encounters with participants may be considered a performance at some level (p90).

#### **3.4.2 Ethics**

Edinburgh Napier University has developed ethics procedures to ensure that issues are identified and addressed. Completed ethics forms are provided in Appendices 2 to 4.

- A *self-assessment form* was completed by the researcher and gatekeeper. This checklist highlights potential issues for each case study (Appendix 2).
- An *informed consent* form was created to ensure that participants understood their rights within the research process, as well as what was expected of them. All interviewees and workshop participants were asked to sign the form (Appendix 3).
- An *assumed consent* form covered observation of public and semi-public events, where it would be impractical to ask everyone to sign an informed consent form. This detailed measures to respect the privacy of individuals in each case (Appendix 4).
- An *information sheet* provided an overview of the research for potential participants. For transparency and accountability, this also contained information about the researcher, including university contact details (Appendix 5). For Case Study 2, a concise version, specific to the case, was posted on the Hill Facebook Group (Appendix 6).

### **3.4.2.1 Outputs and limitations**

The outputs of this phase were the ethics forms, which record a set of agreements about the processes to be followed, in order to respect the case-study participants and provide an audit trail for the university. Information forms provided contact information and information about the research aims and practices, including a commitment to anonymise data. Although all groups, participants, and locations are nominally anonymised, in practice, each group would be recognisable to a local person who was aware of the issues they were working on. The anonymisation goal which guided practice was to avoid any research outputs being linked to the groups by search engines.

### **3.4.3 Data collection and archive**

This section describes the implementation of data collection methods. This phase was not guided by the STIN approach. The data gathered was archived within the qualitative analysis program NVivo. More detail is provided concerning data collection within each case study in Appendices 8 to 10. A summary of the data collected is provided in Table 6 on p104.

#### **3.4.3.1 Review public materials**

Publicly available materials were reviewed to establish a basic understanding of the group, including their history, aims, online presences, previous activities, and associated people and organisations. Predominantly online data were accessed via search. Once the case study began, observation and contact with the participants provided access to paper materials, such as posters and flyers, and led to the discovery of other relevant online materials. Data created by third-parties provided external perspectives on the groups' work.

#### **3.4.3.2 Review materials created by the groups**

Materials were produced by each case-study group, as part of their work, including posters, flyers, information sheets, a petition, a motion for union branches, job specifications, minutes of meetings, reports, and a presentation. These were reviewed both in terms of their content and how they were distributed or accessed. Some materials were historical.

#### **3.4.3.3 Observation (offline)**

Where possible, group activities were observed offline, primarily through attending meetings and events. This was crucial to understanding the groups and their contexts. Observation introduced the group's participants and showed them interacting. It provided

information about their organisation and communication methods, including their use of participation spaces, as well as their aims, concerns and values. Participants were occasionally observed using ICTs in these contexts, predominantly phones, though most ICT use took place when participants were apart.

Ward Anti-Cuts met twice a month throughout the case-study period. All these meetings were observed, with some participation through chat and by displaying agreement. There was a danger that the researcher's participation would influence the group's actions: group members understood that the researcher had specialist knowledge around online participation. However, the boundaries of the research were respected: the group did not consult the researcher, but consulted their own expert contacts. During the case-study period, Ward AC organised one public meeting. They attended demonstrations, lobbies, and a Petitions Committee meeting in the City Chambers. The researcher observed the public meeting, and several events. The researcher also attended meetings of Ward AC's neighbouring anti-cuts group, Sister Group 1, to get an external perspective and see alternative ways of organising a similar group.

Hill Community Action Trust (HCAT) work with people and organisations in Hill Village. They play a key role in many local events, though they may not be each event's principal organiser. The researcher attended several events, including HCAT's AGM, Community Council meetings<sup>36</sup>, the Christmas Fair and the Gala, as well as shadowing Monty, HCAT's Action Manager. At the Hill Gala (Summer Fair), the researcher wore an "ask me about my research" tabard (Appendix 11) and conducted a paper survey (p102).

At the beginning of the City Primary School case study, the researcher attended the City Council Planning Committee meeting where local councillors voted against the planning application to convert the Old High School into studio flats. During the parents' campaign, *before the case study was established*, the campaign was observed as a topic of local conversations and at Neighbouring Community Council meetings, which the researcher had attended<sup>37</sup>.

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<sup>36</sup> Community Councils are the most local layer of statutory government in Scotland. Councillors are volunteers, nominally elected, though generally elections are unopposed. Community Councils are interested in local issues such as planning, transport and crime. <http://www.communitycouncils.org.uk/>

<sup>37</sup> The researcher attends Neighbouring Community Council's monthly meetings, for Hyperlocal Paper.

#### 3.4.3.4 Observation (online)

Online activities were observed through following website and blog updates, social media accounts, and, for Ward AC, through emails. As for offline observation, this was *participant observation*: the researcher retweeted tweets from case-study groups' accounts and liked Facebook posts. This showed support and increased visibility: the observation was not secret. This was particularly important for Hill Facebook Group, which was a closed, non-public group. Data gathered in non-public spaces was considered private: not to be quoted or published without permission from the poster.

#### 3.4.3.5 Surveys

Paper surveys were conducted within the first two case studies: at the public meeting organised by Ward Anti-Cuts and at Hill Gala (Appendix 8 and 9, respectively). The responses were shared with the groups. It is possible that the results of the first survey may have contributed to Ward Anti-Cuts' decision to set up a Facebook Page, as 4/14 respondents mentioned Facebook. However, this would be a minor influence on something that was under discussion at the time: group members put forward many reasons to set the page up.

#### 3.4.3.6 Semi structured interviews

Semi-structured interviews were conducted with case-study group participants. A protocol was created covering: recruiting interviewees, setting up the interview, the interview proper, and after the interview (Appendix 12). Interviewees were selected by asking for volunteers and asking individuals who seemed to play specific roles in each group. Interviewees are listed in Table 4 on p102. Their profiles are provided in Appendices 24, 27, and 32, for the three cases respectively. City Councillor, Bruce, was interviewed for two case studies: Ward AC and CPS.

**Table 4: Interviewees**

Case study	Interviewee	Role(s) which prompted interview request
Ward AC	Jean	Active group member; Chair.
Ward AC	Caroline	Active group member; minute taker.
Ward AC	Florence	Active group member; welcomes people to the group.
Ward AC	Karl	Active group member; contact with other organisations.
Ward AC	Nelson	Active group member; personal experiences.
Ward AC	Victor	Active group member; social media admin.
Ward AC	Mr Green	Active group member; member of Sister Group 1.
Ward AC	Dave	Manages Alliance Blog; member of Sister Group 1.

Ward AC	Harry	Local councillor; attends some Ward AC meetings.
Ward AC	Bruce	Local councillor; attended one Ward AC meeting; historical role.
HCAT	Bill	Chair; founder.
HCAT	Robin	Chair of Community Council; HCAT founder; Trust director.
HCAT	Robert	Trust director.
HCAT	Chris	Trust director; treasurer.
HCAT	Louise	Trust director.
HCAT	Monty	Trust Action Manager.
HCAT	Rowling	Trust member; arts workshop manager.
HCAT	Chloe	Trust member; Gala Committee.
HCAT	Philippa	Trust member; Gala Committee.
HCAT	Barbara	Chair of Allotment Association.
HCAT	Fred	Leads Woods path project.
HCAT	Armstrong	Challenges Monty about Trust in a Facebook group posts.
HCAT	Lily	Trust member; volunteered to be interviewed, via Facebook.
CPS	Rachel	Led campaign against planning application; parent.
CPS	Stuart	Created parents' presentation to the Planning Committee; parent.
CPS	Dmitri	PC member; active in first phase of campaign; parent.
CPS	Georgette	Parent active in campaign.
CPS	Ivan	Parent active in campaign; Hyperlocal Paper contributor.
CPS	Collingwood	Hyperlocal Paper editor.
CPS	Bruce	Local councillor; spoke against application at Planning Committee.
CPS	Daisy	Chair Heritage Org; spoke against application at Planning Committee.
CPS	Joseph	Local Community Council; spoke against application at Planning Committee.
CPS	Desmond	Neighboring Community Council; spoke against application at Planning Committee.

Interview guides (Appendix 13) consisted of a matrix of topics, questions and prompts (Lofland and Lofland, 1994, cited by Fielding and Thomas, 2001, p132). The topics (Table 5 on p104) are chosen to further understanding of the interviewees' experiences of the group and address the research questions. A guide was created for each case study. As described in "Ethnographic methods" (p90), interviews were conducted in as the spirit of participant observation, as collaborative and conversational encounters. Interviews were mostly held in participants' homes or workplaces; a few were held in pubs or cafes chosen by the interviewees. As the interviewees were busy people, an end time for each interview was agreed; most lasted about an hour. The conversational direction took priority over the interview questions, so that interviewees could introduce or focus on what was important to them and interesting points could be followed. This approach, combined with the agreed time limit, meant that few interviews covered all the questions. The first question, something like "How did you get involved?" could take half the interview time and cover most of the topics. This question was particularly good for eliciting information about what

motivated people to participate and what it meant to them. Questions about demographics were rarely covered. Interviews were audio-recorded and transcribed.

**Table 5: Topics from interview guides**

1. Ward Anti-Cuts	2. Hill Community Action Trust	3. City Primary School
1. Their involvement (beginning)	1. Their involvement (beginning)	1. Their involvement (beginning)
2. Activities between meetings	2. Activities	2. Activities
3. Participation spaces, if not covered	3. Participation spaces, if not covered	3. Participation spaces, if not covered
4. Internet use	4. Internet use	4. Email list
5. Getting more people involved	5. Getting more people involved	5. Facebook group
6. Convincing politicians, especially councillors	6. People setting Trust directions	6. Internet use
7. Demographic information	7. Convincing politicians, especially councillors	7. Getting more people involved
8. Further interviews	8. Demographic information	8. Convincing politicians, especially councillors
	9. Further interviews	

### 3.4.3.7 Outputs and limitations of data collection

Table 6 (p104) details all the case-study data which was archived in NVivo. Additional data, such as third-party articles online and historical data, informed the study, but were not formally documented and analysed. See Appendices 8 to 10 for more detail. Data collection was limited by opportunities to spend time, offline, with research groups. This was particularly true for HCAT, as there were a limited number of events to attend during the case-study period. This meant a bias towards seeing people participate at organised events, rather than in their day-to-day lives, and towards observing Hill Village online via their busy Facebook Group. However, during the case-study period, nearly a quarter of the population of Hill were members of the Group and posts covered a wide variety of topics. For the CPS study, observation was limited to a few meetings, as the study was largely historical. Data from interviews is triangulated with documentary information provided by interviewees or publicly available online.

**Table 6: Case-study data collected**

1. Ward Anti-Cuts	2. Hill Community Action Trust	3. City Primary School
Interviews and surveys		
10*Interview transcripts	13*Interview transcripts	10*Interview transcripts
14*responses to survey	20 responses to survey	
Photos of public events	Photos of public events	Photos of school, playground and North Street building
Offline observation		



Notes from Ward A-C 12* meetings and 5*events	Notes from 2*meetings, 1*event, 3*chats	Notes from 1*Planning Dev-sub Committee, 1*pub, 4*N Community Council meetings
<b>Online observation</b>		
13*Ward AC list emails	(emails discussed in interviews)	(emails discussed in interviews)
Ward Facebook pages 39*posts March 2013	Facebook page April-Sept 2013; Arts shelter FB page (5 posts, Feb to June 2013)	8*Heritage org posts on Facebook; 5*Hyperlocal paper on Facebook (June to Nov2013)
	Facebook group posts 108*April 2013, 191*May, 160*June, 59*July, 90*August, 102*Sept (total: 710 posts)	(Parent Council Facebook group discussed in interviews)
Ward Twitter (Tweets: 8*2012, 2*Jan 2013, 2* Feb, 73*March, 30*April)	Twitter April-Sept 2013	MSP: 3*Facebook, 1*Tweet (June to Nov 2013)
29*Alliance Blog posts (Nov 2012-April 2013)	Hill.org (Primarily Sept 2012 to June 2013)	13*Hyperlocal paper articles online (June to Dec 2013), including: 1* planning statement from developers, email from developers, emails to and from council
	WordPress blog posts: 2*Dec 2012, 1*Jan, 1*March, 2* April, 4* May, 3*June, 1* Sept 2013	2*Local environmental Group blog articles (June to Nov 2013), 7*Evening paper online, 2*Other websites, 3*TV website articles.
<b>Materials on council and government websites</b>		
1*online petition (March-April 2013)	DPEA <sup>38</sup> : 21*Wind-farm docs (selected from 748 docs)	Council planning portal: Objections: 11 *submitted online, 14*via email or letter, including CC comments. Planning committee docs and presentations
<b>Materials produced by group</b>		
In case-study period: 1* public meeting flyer, bedroom tax materials: 1*paper petition, 1*bedroom tax leaflet, 1*motion	In case-study period (published online): recruitment advert, info sheet for woods path-clearing (2013).	In campaign period (copies sent to me): 11*posters and flyers, 1*CPS meeting minutes.
Archive materials: union website detailing history of anti-privatisation campaign; Early Alliance Blog posts and static pages.	Archive materials (published online): Community Action Plan 2012-14, Community Action Consultation 2011, HCAT AGM Agenda 2012, Directors' and financial reports for year ending August 2012, Wind farm survey results report 2012.	Archive materials (published online): 10*Parent Council minutes.

<sup>38</sup> The Scottish Government's Directorate for Planning and Environmental Appeals  
<https://www.dpea.scotland.gov.uk/>

### 3.4.4 Analysis

Participation spaces for each group were identified, based on analysing data within NVivo. From these, half a dozen spaces for each case-study group were selected to be modelled using a STIN framework. The framework was adapted to the participation space study context and 19 spaces were modelled.

#### 3.4.4.1 Tagging data in Nvivo

The data collected from the three case studies was analysed in NVivo to increase familiarity with the data; mark (tag) data associated with relevant themes (especially spaces, media and groups); support the identification of participation spaces used by each group; and support prioritisation of these spaces as candidates for STIN analysis. Participation spaces, on and offline, were identified by their use (see p106). Themes were created to tag media, devices, people and groups, marking potential associations. Data related to the literature review, such as ideas about democracy, were also tagged. Appendix 14 presents the top three levels of NVivo nodes. The outputs of this phase were a deep familiarity with the data; all data tagged, so that data associated with a specific theme could easily be found; and about a dozen participation spaces for each group.

#### 3.4.4.2 Identifying participation spaces

The participation spaces tagged in NVivo were the online and offline locations for the groups' participation activities: organising and solidarity, sharing information, encouraging involvement, and trying to influence events. Following Cornwall's suggestion to treat participation as *situated practice* (2002), participation spaces were determined according to what the groups did and aimed to do. The concept of space was interpreted broadly.

**Table 7: Participation spaces analysed in STIN studies**

1. Ward Anti-Cuts	2. Hill Community Action Trust	3. City Primary School
Community Centre Meeting Room	WordPress blog	Reply-All email list
Ward Facebook Page	Hill Facebook Group	Parent Council Facebook Group
Email	"I love Hill" Facebook Page	The Playground
Flyers	Hill.org website	City planning portal
Twitter	HCAT Office	The City Chambers
Alliance Blog	Hill Village Twitter	Hyperlocal Paper (website and newssheet)
	Directory Magazine	

An edited long list of participation spaces was created (See Appendix 15). Pilot STIN studies were conducted on a few spaces from each case. It was evident that the number of spaces analysed would need to be reduced. The final list of participation spaces was decided iteratively: as spaces were modelled for each case, it became evident which spaces needed to be included to capture each group’s activities. Following the development of the full STIN methodology, 19 participation spaces were analysed: six each for case studies 1 and 3, seven for the larger and more complicated Case Study 2. See Table 7, above.

### 3.4.4.3 Adapting the STIN approach

**Table 8: STIN studies**

Publication	Subject of study
Barab, Schatz and Scheckler, 2004	International Learning Forum (online learning community).
Eschenfelder and Chase, 2002	Web-based information systems from four large U.S. manufacturing companies.
Meyer, 2006; 2007	Emerging use of digital photography by marine mammal scientists. Emerging use of digital photography in law enforcement. Digitisation of library resources.
Kling, McKim and King, 2003; Meyer and Kling, 2002.	Information infrastructure to support research (Scholarly Communication Forums).
Rosenbaum and Joung, 2005	Digital libraries. (It is not clear whether this study was actually implemented).
Scacchi, 2005	Free/Open Source Software Development Processes.
Suri, 2011	Emerging use of GIS by historians.
Walker and Creanor, 2009	E-learning network.

The STIN approach is flexible: interpretive, rather than prescriptive (Kling, McKim and King, 2003; Meyer, 2006). In order to adapt the STIN framework to this research context, other STIN implementations were reviewed through published literature. See Table 8 on p107. This led to an increased understanding of how the STIN heuristics could be operationalised. It also inspired the use of diagrams to establish and record the relationships between elements, especially to maintain consistency across participation spaces. The STIN approach was adapted by adding sub-questions to Kling et al’s 8 heuristics (steps) to model a STIN (Kling, McKim and King, 2003, p57), and by adding diagrams. The sub-questions (*participation space questions*) were designed to bridge the different contexts: from Kling et al’s virtual research forums to citizen-led participation/eParticipation, and to describing multiple STINs within each case. See Table 9 on p108. For example, as participants are mostly volunteers, heuristic H3, *identify incentives*, is interpreted in terms of people’s

*motivations* to use the space. The participation space questions also aim to surface the themes of social informatics research that are captured within the STIN framework (e.g. drawing from Kling, McKim and King, 2003; Meyer, 2006; 2007; Meyer and Kling 2002, Suri, 2011). The questions are influenced by factors relevant to participation and eParticipation, as identified in the literature review.

**Table 9: Questions to model spaces as STINs**

<b>Kling et al's heuristics</b>	<b>Participation space questions</b>
1. Identify a relevant population of system interactors	1.1. Who is in the space? 1.2. What roles do people play in terms of the space? 1.3. Who is in the space to work on the group's agenda? 1.4. Who accesses info from the space 2nd or 3rd hand? 1.5. Who creates the space? 1.6. Who supports the space?
2. Identify core interactor groups	2.1. What groups interact with the space? 2.2. What group spaces intersect with the space?
3. Identify incentives	3.1. Why are people accessing the space? 3.2. Who becomes involved primarily because of this space? 3.3. Why do other people want them to access the space?
4. Identify excluded actors and undesired interactions	4.1. Who is excluded from the space and why? 4.2. Why don't people access the space? (Impediments) 4.3. What unwelcome interactions are experienced, feared or avoided?
5. Identify existing communication forums	5.1. What other spaces and communication networks are used by the group? 5.2. What spaces/networks have been used in the past?
6. Identify resource flows	6.1. What costs are/have been associated with the space? 6.2. Who pays? 6.3. To whom? 6.4. Raising money through the space: who, for whom, how? 6.5. Who else benefits from the space (in terms of money or other resources e.g. advertising space)?
7. Identify system architectural choice points	7.1. What is the group's history with this space (specific choices about the space)? 7.2. Identify specific technologies (devices?) associated with the space, including ownership and changes over time. 7.3. How does their use influence use of the space? 7.4. Identify links between spaces –especially those created or increased by use of this space.
8. Map architectural choice points to sociotechnical characteristics	8.1 Explore the space as an assemblage of technologies? 8.2 What hopes and values are most relevant to this space? 8.3 Note trajectories

#### **3.4.4.4 STIN diagrams**

As this implementation models many participation spaces as STINs, the framework needed to create comparably-structured models. Pilot STIN studies were conducted on a few participation spaces, using the participation space questions in matrices of text. This

indicated that the participation space questions were useful adaptations and the analysis was useful for structuring case-study data, but of limited use for identifying results across the participation spaces. A few STIN studies had used diagrams. For Walker and Creanor, their “rather metaphoric” diagrams had been “important tools in developing [their] analysis” (2009, p19). These might help to identify patterns across cases. A small selection of pilot diagrams was created for two Case Study 1 participation spaces:

1. A diagram responding to the first two STIN heuristics: *identify a relevant population of system interactors* and *identify core interactor groups* (e.g. Figure 3, on p95);
2. A diagram responding to the third and fourth heuristics: *identify incentives*; *identify excluded actors and undesired interactions* (e.g. Figure 4, on p110);
3. A diagram responding the sixth STIN heuristic: *identify resource flows* (e.g. Figure 5, p111). This categorised resources into *Resource Dependencies* and *Account Taking Dependencies*, as suggested by Kling, McKim and King (2003) and implemented by Eschenfelder and Chase (2002).

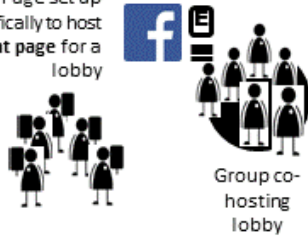
Of the three pilot diagrams described above, only the first two were created for each space. Other diagrams were created if they were useful additions to the text. Timelines were created for events and some participation spaces. The diagrams increased the engagement and immediacy of the STIN models. Creating the diagrams became an active part of the analysis: providing an open, but structured, approach to identifying and abstracting important elements; prompting further consideration of the relationships between elements, often leading to searches for clarification from the data. The researcher cooperated with herself through the diagrams (Smyth, 2000). Working with the text and diagrams became an iterative process, within and across STIN studies. Further, the diagrams surfaced insights that would answer the research questions, especially by facilitating comparisons across spaces and across case studies. The diagrams helped to share the participation space models with other researchers.<sup>39</sup>

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<sup>39</sup> At this stage, a selection of STIN diagrams were shared with the University of Edinburgh’s social informatics group <https://sites.google.com/site/socinfoed/> and presented at *the Social Media and the Transformation of Public Space* conference, in Amsterdam, in June. 2014. <http://asca.uva.nl/events/events/content/conferences/2014/06/social-media.html>

## Motivations to create page

1. Page set up specifically to host event page for a lobby



Group co-hosting lobby

2. And to promote B-Tax petition

3. Need simple contact text for flyers



leafleting

4. Also influenced by end of March demo, being organised, by another group, via Facebook



## Used for...

Visible actions:

- post
- like
- comment
- share

Invisible actions:

- read
- moderate

Event page for Parliament Lobby

As contact info on B-Tax flyers

To promote B-Tax petition

Meetings advertised on FB

Demos promoted. Pictures posted.

Related anti-cuts groups and their Facebook pages

Page posts are auto-tweeted Ward Twitter account (few followers)

## De-motivations

Facebook and Facebookers Model (economic)  
Lack of control over personal data and posts (persistence)  
Reputation of posters (silly posts)

Ward Page Admins  
2 reluctant posters  
2 handle social media for related groups

Council employees can't post anything political

Ward's friendly meetings are their USP

Rely on email contact

- Good list (300+)
- Push technology
- But not always read

## Exclusions and non-interactions

A few Ward regulars don't use the Internet

- Prefer f2f or phone
- Doubt writing skills

One activist missed Parliament Lobby as details shared via FB event

Presume useful info will be passed on by phone...

No system/motivation for transferring info from minutes notebook to Internet

Note-taker is on Facebook, but has not been asked to do this (and doesn't have time)

Alliance blog

- Demotivated by FB changes
- Problems setting up Wordpress links
- Personal link is to Sister Group 1

Figure 4: Ward Anti-Cuts' Facebook Page – Motivations, Exclusions, Problematic Interactions

## Resource dependencies

### Labour and finance (inputs)



Page Admins: add content, respond to comments, moderate page



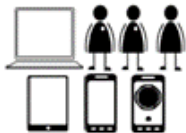
Other groups' pages: sources of content, share posts



Facebook: provides page (software and hosting), moderates, implements business model



Advertisers: pay Facebook for advertising space etc



Individuals paying for technology and Internet: necessary for access, but accessing FB is not a big motivation



No cost to ward group. (Useful as they have no financial set-up)

### Info (outputs)



Contact text for flyers



Promote petition



Promote meetings



Promote demos etc

## Account-taking dependencies



Other groups' seem to be successful in organising demonstrations online. Most other groups have FB pages, including 2 sister groups.



Idea that people will search for Ward on FB And that FB can improve group's reach.



Glasgow group ask Ward to create FB event page to promote lobby



See Eschenfelder, K.R. and Chase, L.C. (2002). Socio-Technical Networks of Large, Post-Implementation Web Information Systems: Tracing Effects and Influences, in *Proceedings of the 35th Annual Hawaii International Conference on System Sciences (HICSS-352002)*

Figure 5: Ward Anti-Cuts' Facebook Page – Resource Flows

#### **3.4.4.5 The STIN studies (STIN Models and summary tables)**

STIN studies were created for participation spaces, using diagrams and text, structured according to Kling's heuristics, and using the participation space questions as necessary, to optimise the heuristics. These models are presented in appendices 25, 28, and 33. Within this main text, each participation space is presented within a narrative of events (see below) and is summarised in a table (e.g. "Table 12: Community Centre Meeting Room" on p128). Each of these summary tables provides an overview of the participation space. Tables include the most salient information about: the main interactors; the extent to which the space is public or non-public; who controls the space and its identity; what the space is used for and participants' motivations to use it; important issues and attributes; resources. This information is drawn from the STIN models. While some elements map to specific heuristics (such as H6 Resource flows), others use information from across heuristics. This set of information was chosen as most relevant to highlighting the characteristics of participation spaces which influence their use, based on the outcomes of the analysis described in "Extracting findings" on p117.

#### **3.4.4.6 Communication forums**

While each STIN model study conceptualises a participation space as a STIN, the organisation at the centre of each case study can also be thought of as a STIN. This was particularly obvious when applying the fifth STIN heuristic – *identify existing communication forums* – as these were associated with the group, rather than specific spaces. The researcher is directed to focus the investigation of communications forums (also described as communications systems and ecologies) on connections between people, rather than digital systems (Kling, McKim and King, 2003, p57-8). So this heuristic was applied at the group level, across their participation spaces. It also became evident that the participation spaces could be described as communication forums, but not all the communication forums were participation spaces, as some are networks of people.

#### **3.4.4.7 Narratives of events**

In order to record how the groups used these communication forums in practice, one or more timelines of events were created for each group. These consist of a timeline diagram and chronological narrative, in which groups use communication forums (especially participation spaces) in context. These events were chosen according to their prominence in



the data: events which were observed (online or offline) *and* mentioned in interviews. Essentially, all the major events identified for each group, within the case-study time period, were recorded or within these narratives and timelines. As these timelines are an effective way of introducing the main elements of each participation space, they form the basis of the case studies as presented within this thesis (chapters 4, 5, and 6), while the full STIN models of each participation space are presented in the appendices.

#### **3.4.4.8 Final revisions of models**

A pilot workshop was held with colleagues, in advance of workshops with case-study groups, (p114). Following this workshop, the STIN diagrams were revised to improve consistency across the models and keys were added. After these improvements, the diagrams were considered finalised. Any information gathered in the workshops with participants, would be presented as *annotation* of the STIN models. The text of the STIN models was further edited for inclusion in the appendices of this thesis. Responses to heuristics were summarised and repetitions across heuristics were reduced. Information from the workshops is included within the text; its source is clearly marked.

#### **3.4.4.9 Outputs and limitations**

The outputs of this phase are 19 STIN models of participation spaces and descriptions of groups' use of participation spaces within narratives of events. Each participation space model includes at least two diagrams: an "Overview of Interactors" and a diagram summarising "motivations, exclusions and problematic interactions". Each case study includes at least one timeline diagram describing an event. The STIN models of participation spaces are presented in appendices 25, 28, and 33. The events are presented in the three case study chapters which follow this one (chapters 4, 5, and 6). As well as appearing in the events narratives, each participation space is also featured in a table (see p112). The implementation of the STIN approach is assessed in "Reviewing the methodological approach" on p216. The next section describes the workshops, which centred on STIN "Overview of Interactors" diagrams.

### **3.4.5 Workshops**

#### **3.4.5.1 Aims**

Workshops were held with participants from each case-study group, in order to validate the STIN models and to share results with participants. In terms of validation, the aims were to

check whether the STIN models resembled participants' mental picture of the group's activities, and to identify and clarify any discrepancies. The models were represented by the interactor diagrams for two participation spaces. If participants could not recognise their activities from the diagrams, disagreed with important characteristics, or noticed major omissions, the models *would not be* validated; if participants accepted the diagrams as reasonable representations of their activities within the case-study period, the models *would be* considered validated.

The workshops contributed to understanding trajectories, by finding out how interactions had changed since the data collection period, and provided opportunities to explore insights with the groups. A further objective was to share the STIN models, as research outputs, to contribute to the groups' management of their communications by providing a holistic picture and an external perspective. In this way the workshops were a light intervention, with the potential to influence the future activities of the groups. As the workshops were centred on STIN diagrams, the final aim was to assess how well the diagrams described activities and supported these objectives.

#### **3.4.5.2 Implementation**

The workshops were held in autumn 2014<sup>40</sup>. Case-study participants are diverse and busy people, mostly working for their groups as volunteers. Results needed to be presented in a way that was accessible and engaging, in a format that did not require participants to contribute too much time. Due to these constraints, diagrams from two STIN models were used to stand in for the whole set, while additional information could be provided within discussions in the workshop. In this context this sub-set of the STIN models could include sufficient information to be useful to the participants and to indicate whether the STIN models were reasonable representations of the groups' activities.

Each participation space model was represented by its "Overview of Interactors" diagram (e.g. Figure 3, on p95). These map the elements (the interactors) that make up the STIN. Large (A1) prints of interactor diagrams were shared with case-study participants in an interactive, workshop format. Participants were encouraged to discuss and annotate the diagrams. The discussions and annotations contained information about the extent to which

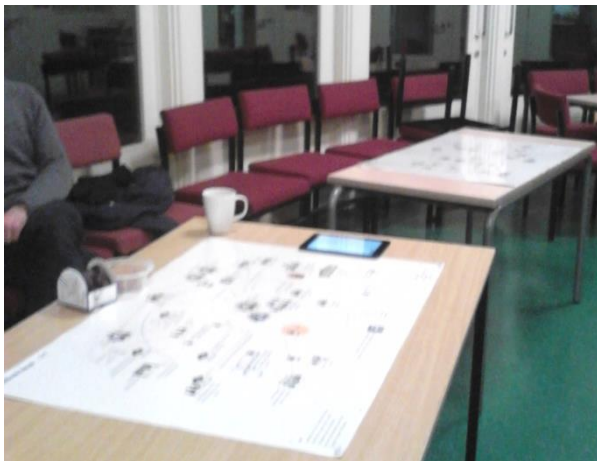
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<sup>40</sup> Prior to the workshops with participants, a pilot workshop was held with university colleagues to test the method and protocol.

the participants recognised and valued the diagrams as realistic portrayals of their activities, plus new information. The sessions were audio-recorded and transcribed. The annotated diagrams were photographed. The workshop implementations are summarised in Table 10 on p115, Appendix 16 “Workshop Protocol”, and Appendix 17 “Workshop Implementations”. Figure 6 (p115), Figure 7 (p116) and Figure 8 (p116) show the set-up at the two City Primary School workshops and the Ward Anti-Cuts workshop.

**Table 10: Workshops with participants**

Case study	1. Ward Anti-Cuts	2. Hill Community Action Trust	3. City Primary School
Participation space diagrams	Community Centre Meeting Room Ward Facebook Page	WordPress blog Hill Facebook Group	Reply-All email list Parent Council Facebook Group
Time lapse since data collection	20 months	15 months	11 months
Participants	5	5	2 workshops with 2 participants in each



**Figure 6: CPS1 workshop set up**

### 3.4.5.3 Outputs

The four workshops with participants created eight annotated interactor diagrams, plus discussions about their use of participation spaces, captured in recordings and transcripts. The workshops are considered to have generally validated the STIN models: participants accepted the pictures. Participants also provided additional information, including trajectories, and some clarification. The workshops improved the accuracy and depth of the research picture of the participation spaces. This fed into the findings. The participants gained an overview of their activities, especially in terms of their use of Internet technologies and other media. Within the workshops, participants from each case study

suggested that this overview and alternative perspective was interesting and useful. The diagrams were a good way to share the models.



**Figure 7: CPS2 workshop set up**



**Figure 8: Ward AC workshop set up**

#### **3.4.5.4 Limitations**

Two diagrams, representing two participation spaces, plus the researcher's additional commentary, stood in for the family of STIN models for each case-study group. As a few omissions were noticed in each workshop, there are likely to be details in the other STIN models that are missing or inaccurate. As the interactor diagrams were abstractions over time, they lacked some of the dynamism of the full STIN models. It would have been helpful to share timelines too. Though several participants from each case study attended, different participants may have brought different perspectives. However, all participants responded positively to the diagrams as a useful picture of their group's communications.

### 3.4.6 Extracting findings

Additional analysis helped to extract the findings from across the STIN models and case studies, in order to address the research questions. The STIN models of participation spaces describe the main participation spaces used by each group and contain the answers to the first research question: *What spaces are considered, used or created for participation, by people trying to improve their local communities?* The STIN models hold the characteristics of each space in a structured format. Further extraction, from these models, helped to answer the second and third research questions: *What characteristics of these spaces influence their use as participation spaces? What characteristics of people and groups influence their choices and uses of participation spaces?* Certain characteristics were extracted into spreadsheets and text files:

- “Motivations, exclusions and problematic interactions” were extracted, primarily from diagrams, into a spreadsheet (summarised as Appendix 18) which lists what each space is used for, along with motivations for use. This could be reordered to display these features by case study, by participation space, or according to each feature.
- The “Resources” spreadsheet (summarised as Appendix 19) contains information extracted from responses to STIN heuristic H6 (concerned with resource flows) and H3, (incentives and motivations). This further separated resources into: resource outlay, resource outputs, account taking dependencies, third-party outlay, and indirect outlay.
- The characteristics of the groups and their members were listed as a text file (Appendix 20). Attributes were grouped into: goals and motivations; time; resources; learning and skills; leadership, community and control; and “the uneven playing field for influence”. The most important characteristic, which influenced all the others, was that participants were mostly volunteers.
- Changes to the groups were brought together in a text file (Appendix 21), using information from heuristics H5 (concerned with communication forums), H7 (architectural choice points) and H8 (viable configurations and trade-offs). It was also informed by groups’ activities since the case-study periods, based on information gathered in the workshops and from continued observation via social media.

- The file “What are spaces used for” (Appendix 22) extracts information from the “Motivations, exclusions and problematic interactions” spreadsheet and categorises this according to three questions:
  1. How did this space/ these spaces help the group organise?
  2. How did this space/ these spaces help the group involve more people?
  3. How did this space/ these spaces help the group influence events?
- This is developed further as “Spaces for organisation; spaces for influence” (Appendix 23), in which the information is categorised, according to: contexts, tasks, features, especially human features, problems, and especially human problems.

As well as providing data for the above lists, the STIN diagrams supported visual comparison of participation spaces across cases. Through the creation and cross-mapping of these analytical tables and lists, the relationships between elements, across spaces and across case studies, became more evident. Answers to the research questions were surfaced from within the STIN models, and the links between the groups’ use of participation spaces and the theoretical constructs described in the literature review became increasingly apparent. This final analysis, combined with the discussions with participants within the workshops, influenced the characteristics of participation spaces which are highlighted in the case-study chapters and surfaced the results, which are presented, after the case studies, as the findings of this research.

### **3.5 Concluding the methodology**

This chapter describes the data gathering and analysis phases of the Participation Space Studies. The methodological approach is described and discussed; then the implementation is described chronologically. A case study approach is chosen with qualitative data collection methods, informed by ethnography. Participation spaces are chosen as a sociotechnical unit of analysis and identified for each group. These participation spaces are modelled, using the Socio-Technical Interaction Network framework, as text and diagrams. Workshops with case-study participants provide a measure of validation for the STIN models, as well as additional information. The workshops may also be considered light interventions, as research outcomes are shared with participants. Finally, the findings are extracted from the STIN models.

The results of the methodology are presented in chapter 7, “Findings and analysis”. The implementation and appropriateness of the methodology are assessed in the penultimate chapter: “Reviewing the methodological approach”. First, the next three chapters present the participation spaces, case by case, along narrative timelines of each group’s activities and events.

## 4 Case Study 1: Ward Anti-Cuts' participation spaces

### 4.1 Introduction to the three case study chapters

These three chapters describe the three case study groups and their activities, including their use of participation spaces. As described in the previous chapter, STIN models of participation spaces have been created for each case study, based on the eight STIN heuristics<sup>41</sup>. As these models are structured data, they are presented in the appendices; the main points are extracted and presented below. At the heart of the STIN methodology is the idea that technologies are not meaningful separable from their context. To this end, the participation spaces for each case study are described within narratives of events. These narratives were originally created in response to STIN heuristic H5, *identify communication forums* (see p112). As well as featuring in the narratives, each participation space is summarised in a table, which highlights the main features. "Participation space tables", on p121, describes the aims and sources of these tables.

The format of each case study chapter is a description of the case study group, and an overview of their use of participation spaces. This is followed by an overview of all the group's communication forums. The participation spaces are then presented within one or more narratives of events. These events are chosen to include the group's main events in the case-study time period. "Narratives of events" on p112 records how and why these were chosen. Each narrative includes a timeline diagram which illustrates the use of participation spaces along the chronology of the event. Quotes from interviews and workshops appear in the narratives and participation space tables. These have been lightly amended to improve readability. Profiles of interviewees, and other workshop participants, are provided in the appendices. After the event narratives, additional insights from the workshops present participants' reflections and the group's trajectory after the case study period. The chapter's conclusion surfaces insights from the STIN studies of participation spaces, across the case study.

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<sup>41</sup> H1 System interactors;  
H2 Core interactor groups;  
H3 Incentives/ motivations;  
H4 Excluded actors and undesired interactions;  
H5 Communication forums;  
H6 Resource flows;  
H7 System architectural choice points;  
H8 Viable configurations and trade-offs.



#### 4.1.1 Participation space tables

A participation space table summarises the space, reflecting the second research question: *What characteristics of these spaces influence their use as participation spaces?* The tables structure these characteristics according to the themes of the literature review, using information from the STIN models. The relationships between these factors and the ways case-study participants use the space are illustrated in the narratives within this chapter and analysed in the “Findings and analysis” chapter. Table 11, below, summarises the derivation of the tables’ contents, following the format of a participation space table.

**Table 11: Example participation space table**

Participation space		Key quotes
 <p>The image on the left shows the symbol used to represent this type of space in the STIN diagrams. For example, the image in this table represents small meetings. The accompanying text summarises who uses the space, based on the responses to STIN heuristics H1 and H2.</p>	<p>This column provides key quotes gathered in interviews and workshops, and from materials created by the case study groups.</p>	
Public/ non-public		Describes who can observe and/or access the space. Uses information collected across the STIN heuristics, especially H1, H2, and H4.
Control/ identity		Summarises issues around ownership of the space, responding to Cornwall’s concept of invited spaces (2000). Draws on responses to STIN heuristics H1, H2, H4, and H7.
Used for/ motivations		Lists activities and motivations (participation and otherwise) that bring people into the space. Draws directly on heuristic H3.
Issues/ attributes		This text summarises salient issues around the space, which have been observed through the STIN analysis. These include any particular attributes of the space which encourage or discourage its use. This draws, in particular, from heuristics H4, H3, H7, and H8.
Resources		This text summarises both resource costs and gains, in terms of money, time, and skills. It draws from H6.

The first row of each participation space table describes who uses the space, based on the responses to STIN heuristics H1 and H2 (*identifying and grouping interactors*). The second row describes the extent to which the space is *public or non-public*: who can observe the space, as well as who can access it. This responds to discussions in the literature about boundaries and invisibility (from p71, above) and uses information collected across the STIN heuristics, especially H1, H2, and H4 (where H4 refers to *excluded actors and undesired interactions*). The *control/identity* row responds to Cornwall’s characteristics of invited and created spaces for participation (Cornwall, 2000; and above, p36); this row summarises

issues around ownership of the space, drawing from STIN heuristics H1, H2, H4, and H7 (where H7 refers to *system architectural choice points*). The *used for/motivations* row lists participation activities: participation spaces are identified according to the activities that take place within them which advance the aims of their group (p38, above); this row also lists the other activities and motivations which bring people into the space. It draws directly on heuristic H3: *incentives and motivations*. The *key quotes* column provides quotes from case-study participants or materials to illustrate important characteristics or perceptions of the space.

## 4.2 Ward Anti-Cuts

The rest of this chapter focuses on the first case study. Ward Anti-Cuts are a local group, convened in 2011 to fight privatisation of City Council services. During the case-study period, November 2012 to April 2013, they were concerned to act against cuts to services and benefits, and to help people affected. Specific foci were the personalisation of care services<sup>42</sup> and the bedroom tax, implemented in April 2013<sup>43</sup>. Ward AC instigated a petition about the bedroom tax to City Council, including an e-petition hosted on the Council's website. The group meet face-to-face twice a month and also use phones, email, and social media, as well as organising and attending public meetings and demonstrations.

### 4.2.1 Case study 1 participation spaces modelled by STIN analysis:

- Community Centre Meeting Room
- Email List
- Facebook Page
- Twitter
- Paper flyers
- Alliance Blog

The *Community Centre Meeting Room* STIN study creates an abstraction of Ward AC's twice-monthly group meetings. Meeting reminders and other important announcements are sent,

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<sup>42</sup> Personalisation means the transfer of budgets and responsibilities to the individuals who use the care services. A potential side-effect may be to give individuals a limited and reduced budget.

<sup>43</sup> The bedroom tax is a popular name for a policy to reduce housing benefit paid to people perceived to have more bedrooms than new government guidelines specified: it is not an actual tax. While the reduction is devised by the UK Government, based at Westminster, its effects are local, as it concerns people receiving housing benefit and living in social housing, owned or organised by local government. It is the responsibility of local government to help with housing and, in Scotland, to provide shelter for homeless people.

by the group's leader, Jean, to their *email list*. Ward AC set up their public *Facebook Page* half-way through the case study; their *Twitter* account had been in existence for over a year, but its use increased during bedroom tax campaigning. One *flyer* was created to promote a public meeting in January 2013; another flyer supported the bedroom tax campaign.

Founder members of Ward AC initially knew each other as neighbours and friends. Ward AC have two sister anti-cuts groups: Sister Groups 1 and 2. The three groups form part of the Alliance Network, which brought together local groups opposing austerity and privatisation, including union organisations and the anti-cuts groups. During the case-study period, this umbrella group was dormant, though the *Alliance Blog* continued. Ward AC have closer ties with Sister Group 1, because their regions border and some people, for example Nelson and Mr Green, attend both meetings. Ward AC members are active in other groups, including unions, left-wing groups, disability rights groups, political parties, and anti-war groups, plus professional networks. These relationships are reflected in their use of participation spaces.

#### **4.2.2 Overview of Ward Anti-Cuts' communication forums**

The full STIN models are in Appendix 25. A table summarising Ward Anti-Cuts' communication forums is in Appendix 23.

Ward AC's primary communication forums are their email list and their twice-monthly meetings (abstracted into the participation space *Community Centre Meeting Room*). Larger public meetings, like the public meeting described below (p124), are held about every six months. Ward AC's online communication forums are their Twitter account and, later, their Facebook Page. Shared online forums include the Alliance Blog and the social media and blogs of related groups, especially the Facebook pages of their sister anti-cuts groups. Participants also used international sites like Google, YouTube and the Guardian newspaper to inform their work<sup>44</sup>.

The group attend, and sometimes organise, demonstrations and lobbies. These are held outside in public, e.g. outside City Council's Chambers and the Scottish Parliament. Group members take flyers and paper petitions. Members also visit picket lines, when public sector staff strike, to show support and to distribute flyers. When the group need to distribute flyers to the general public, they meet in busy places at the weekend; for example, local

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<sup>44</sup> <http://www.theguardian.com/uk>

town centres (“STIN Study: Paper Flyers”). Flyering sessions are important communication forums, as flyers carry information beyond the group, advertising meetings, petitions and social media accounts. When creating flyers, group members use meetings, emails and phone calls. Group members use email, phone-calls, surgeries, and public meetings to communicate with elected representatives.

While meetings and list emails are regular, use of all other forums is related to activities and events. Two narratives which centre on actions organised by Ward AC during the case-study period, are presented below, in order to describe the use of participation spaces in context:

- Public meeting, January 2013;
- Bedroom tax petition to City Council, live from February to April 2013.

Each account follows the timeline of events and focuses on the role of participation spaces. In this way, a holistic picture is provided of the groups, their aims, characteristics and activities. The focus on participation spaces reveals the relationship between these elements and the participants’ use of technologies. This is mapped in a timeline diagram. Each participation space is also summarised in an information table, which highlights the characteristics of the space which influence its use.

### **4.3 Public meeting, January 2013**

Figure 9, on p126, shows the participation spaces in use in the context of Ward AC’s Public Meeting. A key to the timelines is provided on p125.




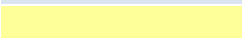
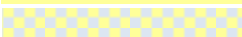
Ward Anti-Cuts’ regular meetings are open to the public. About every six months, they hold a larger meeting, with an increased focus on public involvement, described here as a *public meeting*. These meetings are opportunities for Ward AC to involve both the City Council and the public in their work. Ward Anti-Cuts are concerned with the policies and activities of the City Council, especially, during this period, the Council’s responses to policies initiated by the Westminster Government. Several Ward AC members and friends work for the Council or closely with the Council. For example, members of public sector unions representing Council staff attend Ward AC meetings. In this way, the group have an insight into the day-to-day activities of the Council that may not be available to elected representatives. Public meetings provide opportunities for people to question city councillors directly about the Council’s work. They also provide opportunities for the public to raise issues which concern

them and for everyone to gain a better understanding of what the Council is actually doing.

At the beginning of the case-study period, Ward AC were discussing the privatisation of Council Services, changes to the provision of social care visits, and the impact of various austerity measures, such as the implementation of Universal Credit<sup>45</sup> and its impact on housing benefit. They were beginning to discuss the bedroom tax. Ward AC formed in 2011 to join the fight against a Council proposal to privatise a swathe of their services. They were the first community group, rather than political or union organisation, to join this campaign. Although the Council had rejected the privatisation policy, Ward AC were worried about a kind of “back door” privatisation, through the increasing use of contract staff. They organised a public meeting to question the leader of the City Council about these issues. A second speaker, the leader of a disability rights organisation, was also invited.

The large public meeting was mostly organised at Ward AC’s regular Community Centre meetings (summarised in Table 12 on p128 and Figure 10 on p127). The group set the focus of the public meeting by choosing questions for the Council Leader. During one organisational meeting these questions were re-capped from a previous meeting by reading out the email sent to the Council Leader. During another, decisions from a previous meeting were re-capped by Caroline, reading from the Minutes Notebook. At the beginning of the case-study period, Ward AC had started to record some of their meetings. Caroline had taken on this task, recording the main points in the Minutes Notebook.

**Key to timelines**

Offline: outside public space	
Offline: public space	
Offline	
Online	
Online and offline	

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<sup>45</sup> Universal Credit is an eGovernment project designed to simplify and streamline the benefits system in the UK. A single monthly payment will merge together (replace) certain benefits and tax credits. It is being piloted and introduced in phases. During the case-study period, Universal Credit was due to be introduced in the coming year. However, its implementation has been delayed.

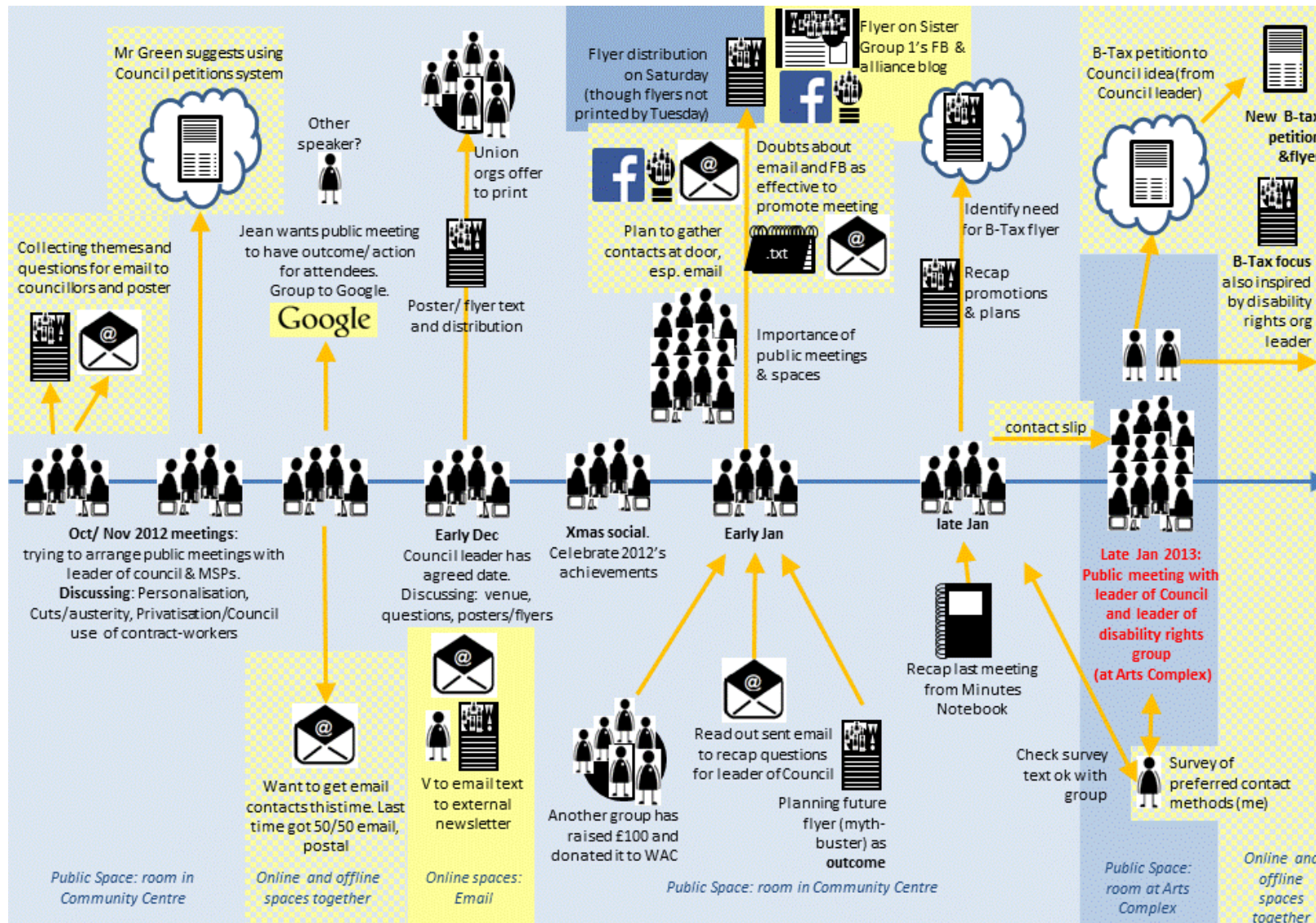


Figure 9: Ward Anti-Cuts' Public Meeting Timeline

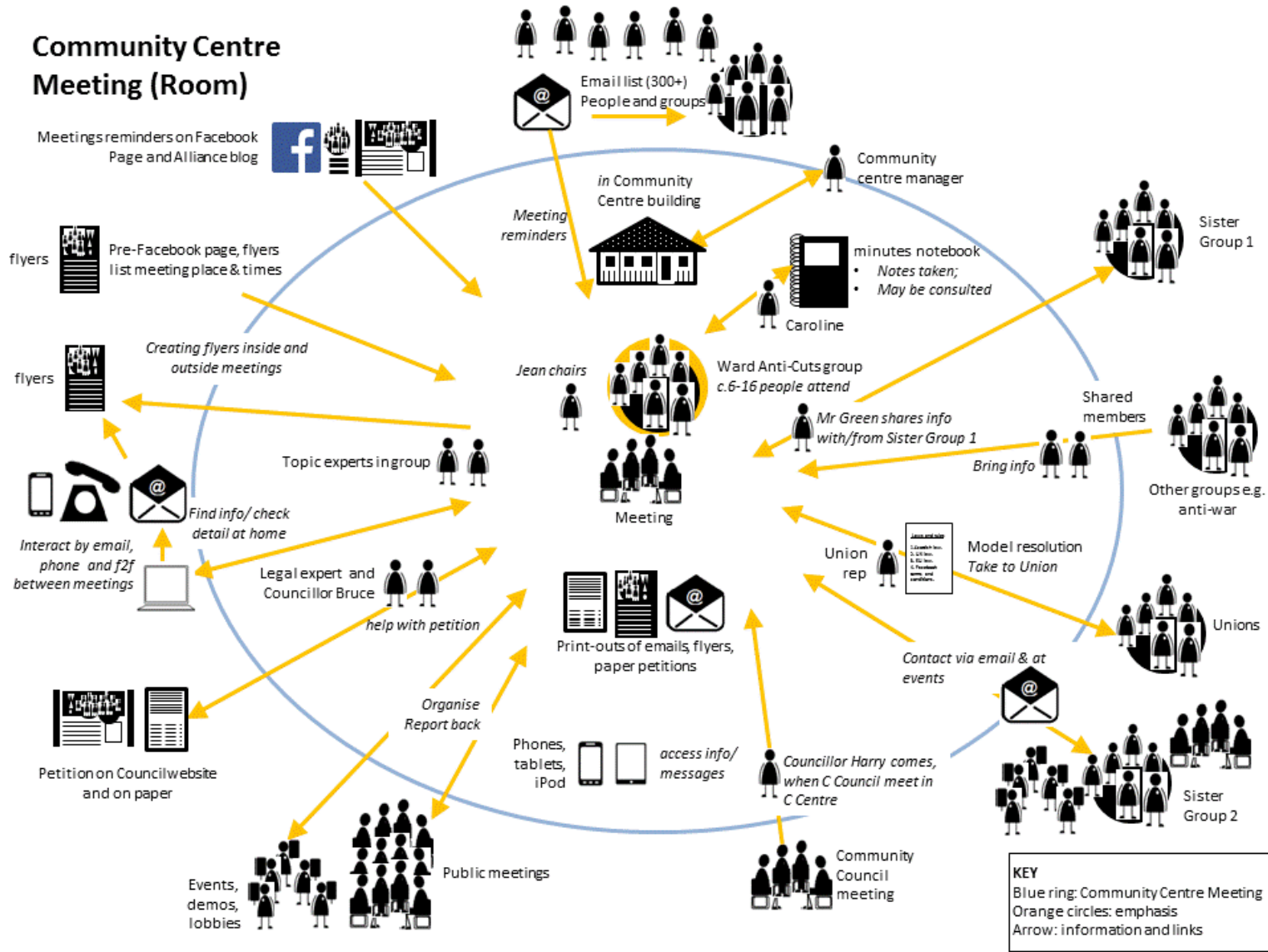



Figure 10: Community Centre Meetings – Overview of Interactors

**Table 12: Community Centre Meeting Room**


Community Centre Meeting Room		Key quotes
	Usually 8 to 12 people attend Ward AC's twice monthly meeting in the Community Centre. A core of group members, including Jean (chair), Florence (welcome), Caroline (notes), Karl, Joe, Nelson, Victor; people representing other groups (e.g. Mr Green for Sister Group 1; people from union groups); new and intermittent visitors.	<p>"One of the things that we've done in the quieter times is actually carried on meeting and talking quite a lot. And sometimes there may seem like meetings where we just talked together, but actually, I think that we also developed and shared common understandings of things" (Victor, workshop).</p> <p>"When you're discussing things you need to be able to go back and forward [...] I think involvement of people in*rooms* and *spaces* doing that is much, much more important than trying to do it online" (Jean).</p>
Public/ non-public	The group is open to the public, but resembles a non-public setting during meetings, as a limited number of people are observing.	
Control/ identity	Jean leads the meeting, and effectively convenes it through the email list reminder. The meeting is central to the group's identity; the members of the group are effectively those who attend the meetings.	
Used for/ motivations	Used for organising, sharing information and learning, but also an important social space, renowned for being friendly.	
Issues/ attributes	The email list is essential for reminding people to come to the meeting; email addresses are gathered at the meeting. Most Ward AC discussion takes place in the meeting, because it is a face to face environment, and certain customs have been established (e.g. people's roles, previous actions and discussions, shared goals).	
Resources	The room is free to use within the case-study period. The meeting requires participants' time (and to be co-located).	

The large public meetings are a key way to involve people from outside the group. Also the number of attendees is important in demonstrating, to City Council, that a significant proportion of citizens were concerned about these issues. So, the group needed to implement an effective promotional strategy. This was organised at the Community Centre meetings; the merits and constraints of promotional methods were discussed. The group decided to promote the meeting: through the email list (Table 13, on p129), by distributing paper flyers, and by putting posters in public places (Table 14, on p130). The group did not have its own Facebook Page at the time and there was some discussion about whether it should have. At this point, Facebook was dismissed as not useful for contacting people beyond their network; though some felt it would be a useful point of contact to put on flyers. The group also had a Twitter account, but this was not discussed as a way to promote the meeting; the account sent only two tweets about the meeting in January 2013 (Table 16 on p133). Doubts were expressed about how many people actually read the emails sent to



the list, but emails were a good way to contact the group’s network and for people to forward to other networks. For example, the public meeting was also listed in a regular email from the *Independent Resource Centre (IR Centre)*, where Sister Group 1 meet. Mr Green was active in Sister Group 1 and attended Ward AC meetings specifically to be an information conduit between the two groups. Dave was also active in Sister Group 1 and in the running of the IR Centre. He maintained the Alliance Blog (Table 15, on p131), including extracting information from Ward AC’s email list to post on the blog, such as information about their meetings.

**Table 13: Email list and email**

Email list and email	Key quotes
 <p>Ward AC’s email list is a text file of 250-300 email addresses, owned by Jean. Jean emails the list (Bcc) twice a month, in advance of the Community Centre meeting. The group also use email amongst themselves (those who have Internet access) and to contact elected representatives. Other people and groups contact the group by email; primarily via Jean. People involved in other groups (e.g. Caroline, Victor, Mr Green) bring relevant emails from these groups/lists to meetings (as print-outs or on devices).</p>	<p>“it started off about 8 people, so I just sent it out from my own email address. And then it kind of grew and grew and I’ve often thought “should we get a [Ward] email address?” But given it’s nothing off my back to *send* it from my email address, [then] I think people quite *like* that personal contact, that they’ve got someone to email back” (Jean).</p>
<p>Public/ non-public</p> <p>The email list and organisational emails are non-public.</p>	
<p>Control/ identity</p> <p>Jean controls the email list and sends it from her own email address. As Jean uses Bcc, only Jean can see list of recipients (i.e. their email addresses). Replies come to Jean and she prints some out to bring to meetings. Emails contain the URL of the Alliance Blog, and the name of the Facebook Page, once it is set up.</p>	
<p>Used for/ motivations</p> <p>Used to maintain the network, promote meetings and events, but not for discussion. People value it as a way to keep in touch with the group.</p>	
<p>Issues/ attributes</p> <p>The list is an essential link between the group’s participation spaces, including online and offline spaces. It is essentially a <i>broadcast</i> list. It is not possible to reply to the group directly via the list. Jean needs to split the recipients’ addresses across 3 emails, as the Bcc field has an upper limit. When someone else sent out the email for Jean, they did not know this. This email only reached a third of the list and the following meeting was sparsely attended.</p>	<p>“What’s been important is to maintain that network, you know, through *emails*, with individuals who come along from time to time. Might drop in and out of activity” (Karl).</p>
<p>Resources</p> <p>Effectively free, for those with email addresses and Internet access. It primarily requires Jean’s time (and skills), but also some attention from recipients/readers.</p>	


Paper flyers and posters were the main way for Ward AC to promote the public meeting to people beyond the group’s immediate networks. Posters and flyers were created, based on

the questions chosen for the Council Leader, with the title “What’s happening in your Council”:

- How will City Council manage changes to Housing Benefit?
- What’s happening to care at home services?
- Will budget cuts put pressure on our services?
- Privatisation was stopped, but what’s happening to your bin collection?<sup>46</sup>

The posters and flyers were printed by unions and group members, as Ward AC do not have their own funds or printers. Members distributed flyers in popular shopping places and via other groups. Sister Group 1 put an image of the flyer on their Facebook; Dave created an Alliance Blog post using the flyer text.

**Table 14: Paper flyers**

Paper flyers		Key quotes
	Paper flyers (leaflets) enable Ward AC to share information beyond the group. In the case-study period, they are used to promote public meetings and action against the bedroom tax.	<p>“Because you do engage with certain people and you think “Oh gosh, that’s awful” or “How do you do that? How do you manage?” And then that person will come along to the meeting and you see them walking in and you think “Gosh. You did care enough” or “You were concerned enough that you thought “No, I will go and find out what’s happening”” (Florence).</p> <p>“This leaflet has been produced by the local resident groups [Ward AC], [Sister Group 1], [Sister Group 2] (we are not affiliated to any political party), [four local union groups]” (Bedroom tax flyer text).</p>
Public/ non-public	Flyers are public texts and distributed in busy public places. Posters are stuck on (e.g.) bus shelters.	
Control/ identity	Ward AC work together to create the flyer text and to distribute the flyers. The flyers created in the case-study period included contact information for Ward AC (Twitter account for first flyer, Facebook page for later flyers) and Sister Group 1 (Facebook page) and the Alliance Blog’s URL. They also thank union organisations for help with printing, while asserting Ward AC’s independence.	
Used for/ motivations	Used to promote meetings and petitions, especially to people beyond the group’s network.	
Issues/ attributes	Flyers provide links between offline and online spaces –for example, links to the online petition. When members are flyering, people stop and chat. They are supportive and share their own relevant experience.	
Resources	Resources: flyers have a unit cost, though this is not paid by Ward AC. Other groups (e.g. unions) print the flyers. People may interpret this as the unions having some kind of ownership of the flyers, rather than just providing support. Group time, skills and knowledge go into creating the flyers. Plus distribution time.	


The public meeting was held in a local arts complex. Over 50 people attended the meeting, including people from related groups, such as anti-cuts groups and left-wing organisations.

<sup>46</sup> The title and questions have been lightly re-phrased to protect the anonymity of the group.

At the meeting, the researcher distributed a 3-question paper survey, asking “How did you hear about the meeting? How would you like to stay in touch with the campaign? What would you like to do about the issues raised in the meeting?” (See Appendix 7). This received 14 responses: most had heard about the meeting through personal or group contacts, by email or Facebook; three mentioned flyers. One survey respondent heard about the meeting through a leaflet and did not mention any previous links with related people or groups.

Before the public meeting, Ward AC members placed slips of paper on the chairs. These listed contact information: Ward AC’s regular meetings and their Twitter account’s name; Sister Group 1’s Facebook page; the Alliance Blog’s URL. Attendees’ contact details were collected at the door by Mr Green and Joe, who encouraged people to provide their email addresses. Only half the contacts collected at the previous public meeting had included an email address; Florence had posted flyers to the postal addresses.

**Table 15: Alliance Blog**

Alliance Blog		Key quotes
	The Alliance Blog is a Wordpress blog with posts about anti-austerity and anti-poverty actions in the City. It grew out of the Alliance (anti-austerity) network. Dave maintains the blog (writes posts), so it is more or less up to date, depending on Dave’s available time.	“But [Dave’s] really efficient and it’s really good because like when we’re doing anything he just gets the email and he always emails back and just says “[I’ve] put that on”, you know, “it’s all up on the website” (Jean).
Public/ non-public	The blog is open to the public to read.	“But originally, what I intended to do was, was to give a login to somebody from each group: [Sister Group 2, Ward Anti-Cuts] and the [Alliance]. And so I met with people from all the groups and I showed them what to do. But then none of the other people ended up doing it [laughs]” (Dave).
Control/ identity	Dave controls the blog. He had hoped others would share content-creation, but that didn’t work out. The comment facility is not enabled, so there is no way for people to add content, except through Dave. Shared identity: the blog includes a static page for each of the 3 anti-cuts groups and the associated Alliance, which includes union and trades council organisations.	
Used for/ motivations	Used to promote public meetings, petitions, events, anti-austerity discourse. The blog’s calendar lists meetings.	
Issues/ attributes	Ward AC use the blog’s URL, but don’t get actively involved. Jean appreciates Dave publishing content (especially meeting times) from the Ward AC email. The blog relies on Dave’s networks for information, but Dave tends not to use social media. This means the blog can miss information from Sister Group 2 when it is distributed via Facebook, rather than through email.	
Resources	Resources: Dave pays for hosting (£2-3 per month) A significant volume of Dave’s time; his skills (with technical limitations).	

Florence welcomed people to the meeting and Jean chaired. The Leader of City Council spoke, the leader of Disability Rights Org spoke, and then questions for both speakers were taken from the floor. Ward AC had established some questions, but other people also asked questions and made comments. The leader of Disability Rights Org spoke about the bedroom tax, which was going to be implemented three months after the meeting. He described how it would disproportionately affect disabled people. Responding to questions, from the floor, the Leader of the Council suggested petitioning the Council about the bedroom tax. The bedroom tax had been a topic at Ward Anti-Cuts' meetings, with the group developing their understanding, and discussing ways to campaign and help its victims. These included providing information, campaigning for additional advice services, and campaigning against the bedroom tax and related evictions. After the public meeting, the group focused on creating an anti-eviction petition to the Council and an information leaflet, which also promoted the petition. These activities are the focus of the next narrative: "Bedroom tax petition".


#### **4.4 Bedroom tax petition**

Figure 13, on p138, shows the participation spaces in use in the context of Ward AC's bedroom tax petition to City Council. This petition asked the Council not to evict tenants whose rent arrears were due to the bedroom tax. It was organised by Ward AC, but formally submitted by the Alliance leader.

At Ward AC's regular meetings at the Community Centre, before the public meeting in January 2013, the bedroom tax was discussed a little more each week. The group were gathering and pooling information about how this policy would affect local people and how the Council, and other bodies, would react. The group had also discussed petitioning the Council about other issues, and setting up a Facebook page to promote their activities and to be a point of contact (Table 17, on p135). After the public meeting, these discussion streams came together. The group decided to petition the Council not to evict its tenants who fell into arrears because of the bedroom tax. Following the Leader of the Council's suggestion, the group decided to use the petitions system provided by the Council. This hosts online petitions and accepts paper signatures. Petitions which reach a threshold (500 local signatures, during this period) are discussed by the Council's Petitions Committee. The petition text was written over a couple of regular Ward AC meetings, at the Community

Centre. The meeting at which the text was finalised was attended by about 20 people from various groups, sharing ideas about the text and how to promote the petition. This meeting was also attended by a friend of the group who was a legal expert and by Councillor Bruce, who came to provide information about the processes around the Council’s petitioning system. Sister Group 2 had emailed a suggested addition to the text, but this was not accepted by the group, who preferred not to complicate their request.

**Table 16: Ward Anti-Cuts’ Twitter account**

Ward Anti-Cuts’ Twitter account		Key quotes
	Victor set up the account in 2012, but has not had the time to promote it. The account has few followers: 13 on 5 <sup>th</sup> April 2013, including Caroline, Jean, a union organisation, a disability rights organisation, and the researcher. The account was following 10 people, including Caroline, union organisations, disability rights and human rights organisations, and the researcher.	“I’m not sure everybody else in the group was convinced of the use of doing it. [...] For the kinds of things that you’re doing when you’re campaigning, I actually think it’s probably a very effective tool. So, initially I set it up, but [...] I really didn’t do a lot to kind of promote it [...] I think it still needs probably two or three more people to be involved in it in a consistent way, because I think it clearly grows if you have a much more concerted, you know frequent use of it, than probably I manage on my own –everyday” (Victor).
Public/ non-public	Public	
Control/ identity	Victor controls the account, though it also auto-tweets Facebook Page posts. Victor also manages an anti-war account. The Ward AC account retweets other organisations’ tweets, when their agendas overlap (e.g. anti-war). The account is aligned to Ward AC, though the account name does not resemble Ward AC’s real name.	
Used for/ motivations	Used to promote public meetings, petitions, events. The account was set up to promote a public meeting in 2012. Its use increases when the group are promoting the petition.	
Issues/ attributes	Victor recognises its potential, and that it needs more people to be involved, but does not encourage other people to promote it.	
Resources	Resources: effectively free; Victor’s time and skills.	

The petition was a central activity within Ward AC’s bedroom tax campaign. In parallel, Glasgow Law Org had created a similar petition to the Scottish Parliament; so Ward AC promoted that as well. Ward AC also created flyers and a model resolution for unions. The bedroom tax flyer is described in the Paper Flyers STIN study, in Appendix 25. The flyer provided information about the bedroom tax and a list of organisations that could help people affected. It listed ways people could take action including contacting elected representatives, contacting the anti-cuts groups, and signing the two petitions. URLs were provided for both petitions; a QR code was provided for Ward AC’s petition. At this stage,

Ward AC still did not have a Facebook page, so the leaflet included their Twitter account and the Alliance Blog URL as contact information (Table 16, on p133, and Table 15, on p131, respectively). During this campaign period, Ward AC (Victor) used Twitter much more actively. For example, two tweets were sent from the account in January and February 2013, but 59 in March and 36 in April. The petition was also promoted via the email list: emails included a link to the petition on the Council's website and a pdf that could be printed off to collect signatures on paper. Ward AC and other groups met in busy locations, at the weekend, to hand out flyers and gather signatures to paper petitions.

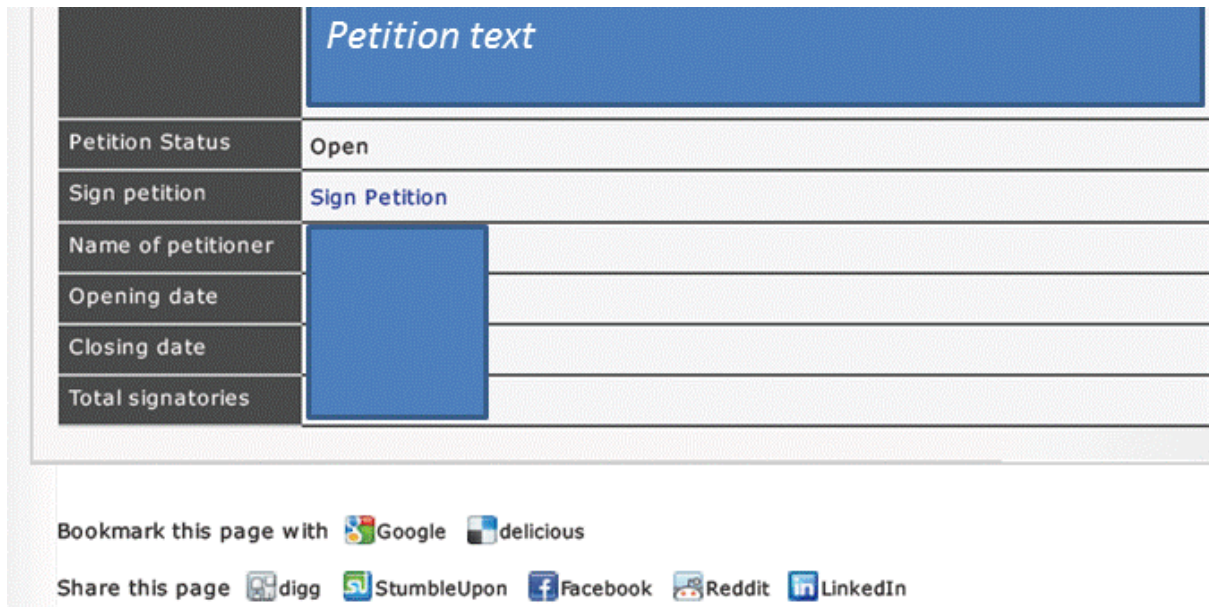
At this point, Ward AC did not have a Facebook page, although they had discussed it at a few meetings. Some felt that Facebook was not helpful for spreading information beyond their networks. Others worried that people were searching for Ward AC on Facebook, but only finding an archive of a past event. Other groups were also beginning to campaign against the bedroom tax. A group unknown to Ward AC was organising a City march, seemingly via a Facebook Event page. Over 8000 Facebook members had been invited, 1500 said they were going and 558 said maybe. Organisers estimate that 1600 attended the march. This new group seemed to represent a new generation of campaigners, aligned to Occupy and instinctively organising online, rather than aligned to the local left-wing groups, whose work centred on regular face-to-face meetings. Ward AC were impressed by the use of Facebook in this context. Due to Ward Anti-Cuts' bedroom tax petition, Glasgow Law Org asked the group to host a Facebook event for a Parliament Lobby aligned to their bedroom tax petition to the Scottish Parliament. This was the final impetus for Victor and Caroline to agree to set up the Ward AC Facebook Page (Table 17, p135). The co-evolution of Ward AC's bedroom tax campaign and their Facebook Page is illustrated by the two timelines: *Figure 13: Ward Anti-Cuts' bedroom tax petition timeline* (p138) and *Figure 14: Ward Anti-Cuts' Facebook Page timeline* (p139). The diagrams from the STIN model of Ward AC's Facebook page are presented within this thesis as examples in the methodology chapter: Figure 3, on p95, maps the *interactors* for the Facebook Page; Figure 4, on p110, summarises *motivations, exclusions and problematic interactions*; Figure 5, on p111, summarises *resource flows*.

**Table 17: Ward Anti-Cuts' Facebook Page**

Ward Anti-Cuts' Facebook Page		Key quotes
	<p>Ward AC set their Facebook Page up in March 2013, when they began to promote their bedroom tax petition. Jean, Victor, Caroline and Mr Green are admins. Jean posts regularly, though not frequently; Mr Green tends to post info from Sister Group 2's page. Victor tends to post information from other groups, especially anti-war groups. In April 2013, 66 people liked the page.</p> <p>See Figure 14: Ward Anti-Cuts' Facebook Page timeline, on p139</p>	<p>"WE ARE NOW ON FACE BOOK please like us at [Ward Anti-Cuts]." (Email to Ward AC list).</p> <p>"I don't use Facebook as a kind of *personal* sort of thing, but I do find it quite interesting to scroll through, cos I mean like, you know, today, I picked up on a couple of articles I wouldn't have read if somebody hadn't posted them. So, I do use it a *lot* for getting information." (Jean)</p>
Public/ non-public	The page is public. It is open to people who do not use Facebook. However, people who use Facebook are more likely to see the page, as posts may appear in their timeline.	
Control/ identity	Jean and Victor post most content. Others can, and do, comment on posts. Comments tend to be supportive and/or humorous; threads tend to be short.	
	The page is associated with and named after the Ward AC group, so that people searching Facebook for the group, find the page. Many of the posts are shared from other groups' pages.	
Used for/ motivations	Used to promote meetings, petitions, events, ideally to wider networks, and as a contact point (e.g. added to contact details on flyers).	
	The group had been impressed by a Facebook event page for a local bedroom tax march, organised by another group.	"you can have the *illusion* of lots of activity, well the reality then turns out to be really disappointing." (Victor)
Issues/ attributes	The group were wary of Facebook hype and campaigned successfully for a couple of years before setting up the page. Ward AC members who use the Internet, tend to prefer reading, rather than posting. They are also rather busy. So no one has taken on the role of promoting the page, beyond suggesting people like the page on Ward AC emails.	"there's a tendency to think "Well, if you do something else, you know, start using forms of social media or something, then that's just more work and it's not necessarily going to be any more effective." (Victor)
Resources	Resources: effectively free, though some participants were unenthusiastic about Facebook's commercial model. Time and attention to maintain, read and share.	

Once set up, the Facebook Page was promoted on regular emails. Its name was added to the bedroom tax flyer, when it was revised. The page was also set up to automatically tweet its posts. The Facebook Page was used to promote petitions and events associated with Ward AC and related groups and campaigns. An event page was set up for the Glasgow Law Org's lobby of the Scottish Parliament to promote their petition. However, this event was sparsely attended. Core Ward AC and Sister Group 1 member, Nelson, missed the lobby, because the final details were posted on Facebook and he did not use the Internet at this point.

The petition was live on the Council’s system from late February to early April 2013. It could be accessed and signed online or on paper. The petition on the Council’s website included facilities to share the petition via Digg, StumbleUpon, Facebook, Reddit, LinkedIn, but, interestingly, not Twitter (see anonymised screenshot: Figure 11, p136).



**Figure 11: Online Petition with Links to Social Media**

Before the petition was closed and presented to City Council’s Petitions’ Committee, the Council’s Green Party, followed by the two parties in the Council’s ruling coalition (Labour and SNP) passed resolutions which resembled the petition: i.e. that council tenants should not be evicted due to bedroom tax arrears. Thus, when the petition was presented, although it was debated by the Petitions Committee, it had limited influence. However, it was part of a wider campaign that was influential in the Council’s decisions about how to mitigate the effects of the bedroom tax. After the case-study period, Ward AC worked with the Council on its processes to help people who were affected by the bedroom tax. For example, the group helped the Council design more user-friendly forms. Ward AC petitioned the Council again, about the how the Council approached rent arrears due to the bedroom tax. After this, Ward AC started to use external petitioning systems.

Figure 12, on p137, records the number of online petition signatures in a timeline aligned to events. A steady increase in online signatures is seemingly unconnected to online or offline events. Signatures were also collected on paper at events, so offline signatures (about half of the total) probably reflect this. Paper signatures are added to the system, by the Council,



after the petition closed. The number of signatures fell as duplicates were removed. A previous dip was caused by database maintenance.

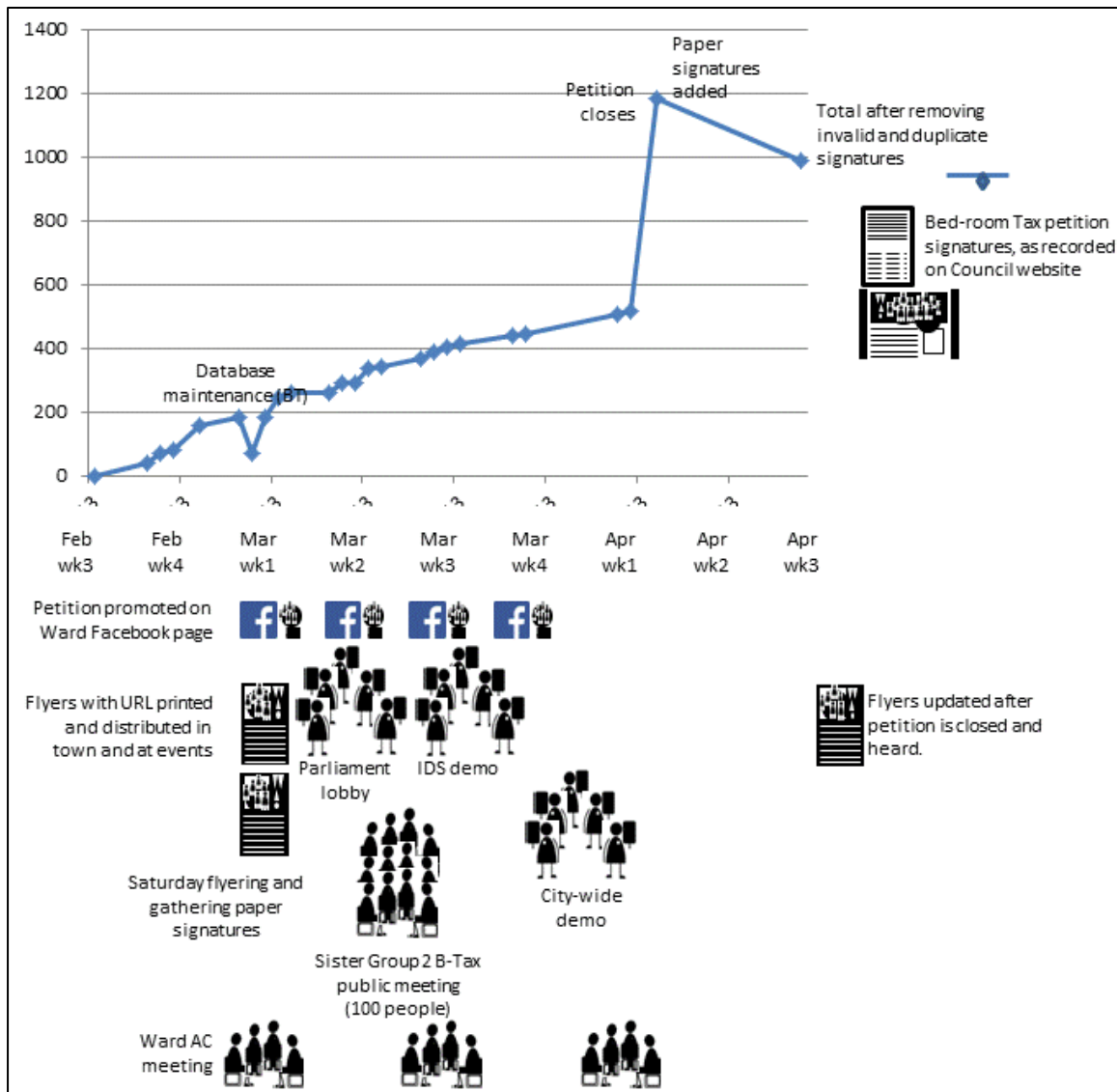


Figure 12: Ward Anti-Cuts' Petition signatures as recorded on City Council's website

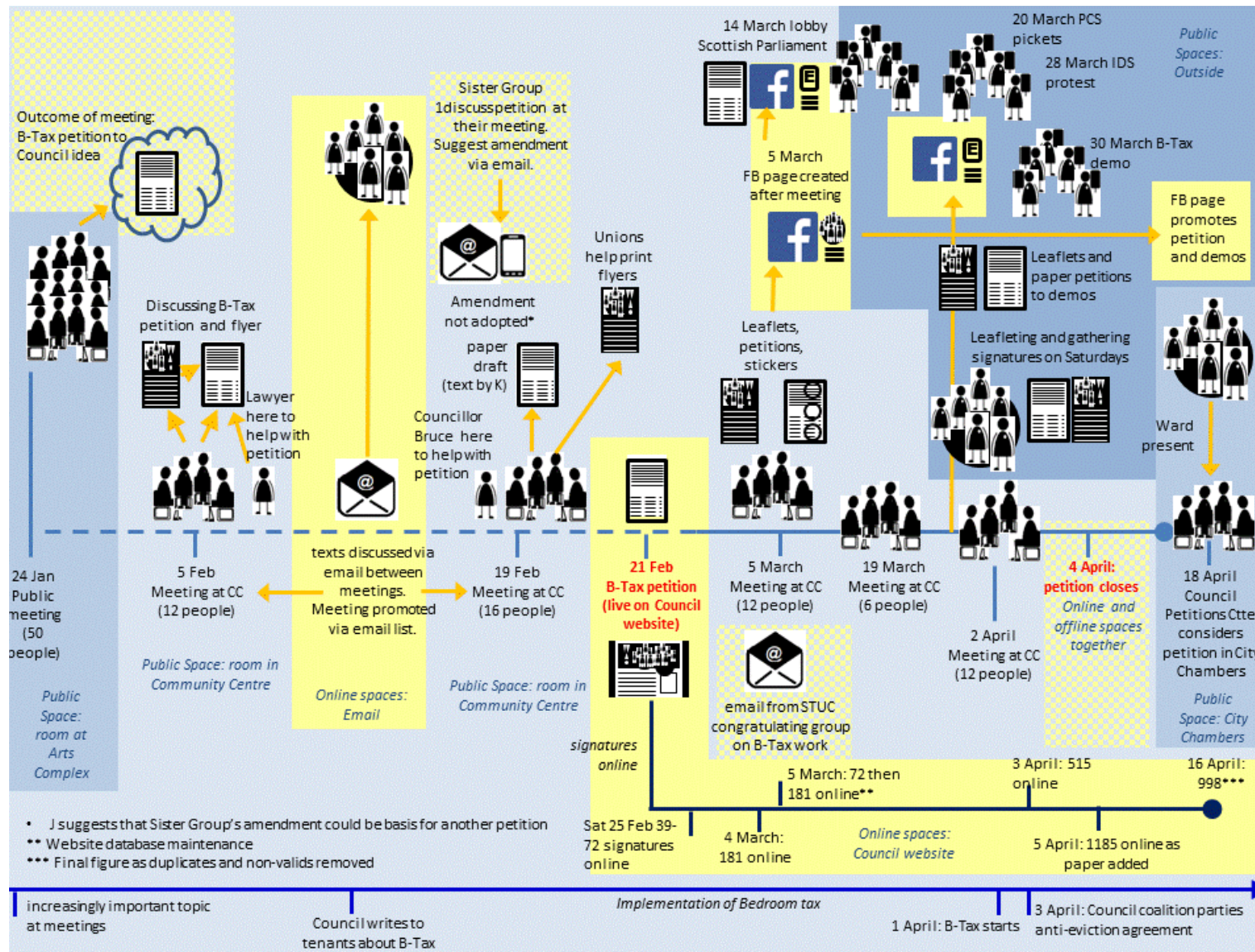


Figure 13: Ward Anti-Cuts' bedroom tax petition timeline

# Ward Facebook Page as timeline (birth) 2013

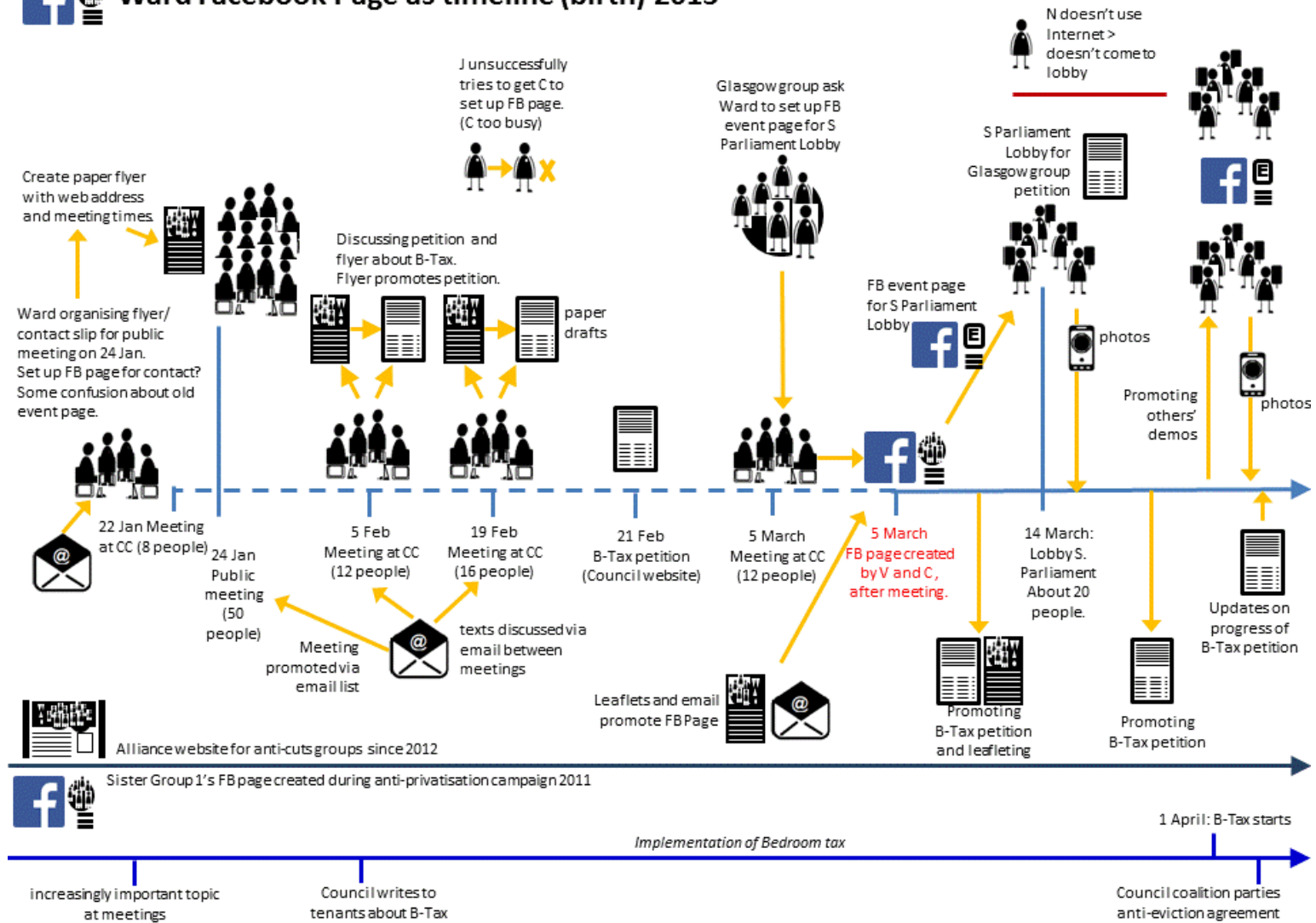


Figure 14: Ward Anti-Cuts' Facebook Page timeline

## 4.5 Insights from the workshop

A workshop was held with several Ward AC members, 20 months after the case-study period. The workshop indicated that the STIN studies' picture of Ward AC's communications was aligned with the participants' recollections. Some insights from the workshops are presented within the narratives above and the STIN models in Appendix 25. Further insights, relating to the case-study period and developments since then, are presented below.

In the workshop, Victor suggested that the group were also involved in deputations to the Council. This is not recorded in any of the STIN studies: "there's a kind of deputation thing, where you have to prepare to go and speak to the Council, or going to speak to councillors' surgeries and things like that, which is a lot less preparation, but still involves you." Victor added this annotation to the Community Centre "Overview of Interactors" diagram: "Deputations, Councillor surgeries + Council meetings" next to "Events, Demos, Lobbies" (Figure 15 on p140). Workshop participants felt that City Council had become increasingly closed to feedback. For example, the Council's online budgeting tool, live between the case-study period and the workshop, closed off input.



Figure 15: Annotation from workshop – adding deputation

Victor highlighted the integrated use of participation spaces when he suggested that people increasingly expected communications about an event to come through a variety of channels and that fewer channels indicated a lack of seriousness: "Someone was saying to me the other day that you've probably got to do the leaflet and the Facebook and the email, because people tend to think things aren't true unless they're seen in several forms. I think it's a bit more than just repetition. It's kind of "This is a serious event" if it's got all these things, which didn't use to be the case."

In the year after the case-study period, Ward AC members had disagreed on the Scottish

Independence Referendum, but continued to work together. Victor and Florence wondered if the group could tap into the increased democratic engagement observed around the referendum and turn it towards the cuts issue: “I think people felt empowered and they felt that they wanted to join in something that could be positive and that they felt that they could play a positive role in. Um, but you could actually say that if you could harness that and direct that at the cuts, really, you know every one of those people that voted in the referendum should have a view, because this is going to strike right across the board, particularly in the next few years” (Florence). However, only “Yes” groups continued to meet<sup>47</sup>. Nelson was at a “Yes” meeting on the evening of the workshop.

The workshop provided a good opportunity for the group to step back and look at their communications together; for example, the workshop included a lively discussion about the impact of flyers. The two STIN interactor diagrams, for the Community Centre meetings and the Facebook Page, supported the discussion well, though they were rather flat summaries. Caroline suggested that, in the interactor diagrams, arrow width could reflect importance. The discussion included many elements which were captured better in timelines, though no timelines had been provided.

#### **4.6 Ward Anti-Cuts and their participation spaces**

This chapter has presented the six STIN studies of participation spaces coming out of the Ward Anti-Cuts case study, within the contexts of two consecutive events: a public meeting in January 2013, and Ward AC’s bedroom tax petition to City Council. These event timelines are followed by some additional comments from the workshops, which shed further light on the group’s use of participation spaces and indicate the group’s trajectories since the case-study period. The participation space concept provides a way to bound and explore the relationships between the group’s characteristics, their goals and context and their use of media. It helps to establish parallels between the factors governing the group’s use of online and offline spaces.

The STIN studies, event timelines, and workshop feedback show a traditional campaigning organisation, whose activities and communications *centre* on regular face-to-face meetings. Ward Anti-Cuts’ use of digital technology may seem peripheral. However, digital technology

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<sup>47</sup> I.e. groups which had campaigned for Scotland to become independent of the rest of the UK.

is integrated into all three strands of their activities: organisation, involving more people and influencing those in power. The email list is essential in reminding people to attend Ward AC meetings; this becomes evident when it breaks down. However it is never used for discussion: that is reserved to the meetings. Email and social media support collaboration with related groups. The group primarily involve the wider public through public meetings and paper flyers. Both are organised at regular meetings and via email. The petition, supported by email, social media and flyers, is a combined online and offline method to influence City Council. The case study covers a period of increasingly intense campaigning and an expansion in Ward AC's use of digital tools, both individually and as a group. For example, Ward AC create a Facebook Page and online petition. The petition is promoted by everyone, using all the group's participation spaces. However, no one takes further responsibility to promote the social media accounts. Ward Anti-Cuts are historically part of a network of local groups acting against the cuts. Towards the end of the case-study period, new groups form to act against the bedroom tax and Facebook becomes more important as a space to collaborate with these groups. Ward Anti-Cuts' use of paper flyers resembles social media: providing opportunities to interact with people, both within and beyond their networks; flyers provide links to online spaces, for further action, more information, and to stay in touch with the group.

The findings across the three case studies are presented and discussed in chapter 8 (p188). The next chapter presents the participation spaces for Hill Community Action Trust.

## 5 Case Study 2: Hill Community Action Trust's participation spaces

### 5.1 Introduction

This chapter presents the seven participation spaces of Case Study 2, Hill Community Action Trust (HCAT), based on their STIN models. A description of the group is followed by an overview of their use of participation spaces and other communication forums<sup>48</sup>. The participation spaces are presented within narratives of five events: path-clearing in the woods; HCAT's AGMs; Hill Gala; building the new resource centre; and the Westhill Moor wind-farm proposal. Five narratives are provided in order to cover the diversity of HCAT's activities and the complexity of its goals: to improve life in Hill and to invest the Trust's fund in the interest of the village and the environment. These are chosen to include HCAT's main events in the case-study time period (see p112). The conclusion summarises HCAT's use of, and relationship to, their participation spaces. The full STIN models of participation spaces are provided in Appendix 28. Profiles of interviewees are provided in Appendix 27.

### 5.2 Hill Community Action Trust (HCAT)

Hill is a rural village in central Scotland. Hill Community Action Trust was set up to manage an environmental compensation payment to Hill village from a nearby city council. HCAT is steered by volunteer directors and employs a salaried Action Manager, Monty. HCAT consults and works with Hill residents to promote the interests of the community. Sustainable energy is a major theme of their work. During the case-study period, December 2012 to September 2013, HCAT were building a resource centre, fundraising, and involved in the planning appeal for a nearby wind-farm (a potential investment). HCAT also support local groups and community activities, including improving paths in nearby woodland.

#### 5.2.1 Case study 2 participation spaces modelled by STIN analysis:

- Hill WordPress blog
- Hill.org website
- Hill Facebook Group
- "I love Hill" Facebook Page
- Hill Twitter
- HCAT Office
- Directory Magazine

Monty established the *Hill Facebook Group* before he was involved with HCAT. During the

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<sup>48</sup> Communications forums are understood as networks of people and the media that support these networks. See "Communication forums" on p111.

case-study period about 20% of Hill's population were members of this Group. Monty set up the *Hill WordPress Blog*, initially to support a community consultation, when he started to work for HCAT. He inherited the *Hill.org* website: a community website created during early HCAT projects. During the case-study time period, Monty started to use and promote the "*I love Hill*" Facebook Page. He also manages the *Hill Twitter* account. Until the new resource centre was complete, HCAT were based in the *HCAT Office*, on Hill high street. HCAT also share news through the free, local *Directory Magazine*.

### **5.3 Overview of HCAT's communication forums**

HCAT are an organisation created to represent the interests of Hill Village, and largely function through integration *with* the village. Although it is a membership organisation and constituted as a legal entity, HCAT is more meaningfully understood in terms of the porous boundaries and networks of the local community. Appendix 26 summarises HCAT's main communication forums, including the seven participation spaces modelled using the STIN framework. The communication forums are networks based on people with shared interests and the spaces which bring people together and support information-sharing.

HCAT use a collection of online and offline communication forums: Monty aims to reach more people, and also the same people several times, to be effective: "because I think people don't get their information from one source. It only hits them when they get it from different sources, like a poster or a flyer. So I try and communicate in a way where you've got the information and you drip feed it in different places, on different days" (Monty). This can be unnerving for people like Robert, HCAT's vice chair, who prefer a more explicit structure to support their information-searching.

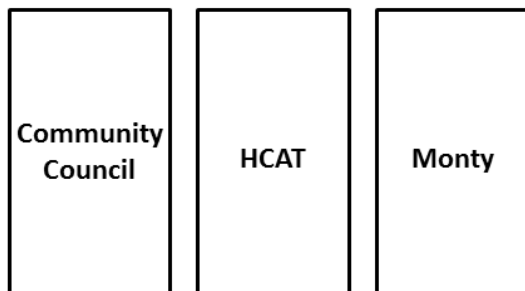
#### **5.3.1 Groups and networks**

HCAT is part of a village where people have developed relationships, over time, by living near each other and attending events; social networks especially form around children and school. HCAT is a network, with directors, staff (i.e. Monty) and members; the directors are a sub-network, communicating amongst themselves, often invisibly to others. There are about six directors, including Bill (founder and chair), Robert (vice chair), Robin (chair of Hill Community Council), Chris (treasurer), and Louise. Monty is an essential extension of the directors' network. He also creates a network around himself by being the central node:



“We do tend to go to [Monty], kind of like a source” (Philippa). He provides information to both the village and directors. Monty was already central to village networks when he joined HCAT, especially because he had set up the community Facebook Group and through his involvement in the school’s Parent Council. Monty is down to earth, with a good sense of humour<sup>49</sup>.

HCAT works with village groups, including the Allotment Association, Gala Committee, and Community Council. HCAT has a special relationship with the Community Council, as the Community Council founded HCAT; HCAT report to them, and support their work by providing communications. HCAT, the Community Council, and other Hill groups share both participation spaces and aims: to promote Hill and improve life for its inhabitants. Monty values these overlapping networks; others experience some confusion, especially as several people are both community councillors and HCAT directors. When Robert was interviewed, he drew something like Figure 16 on p145, pointing from one to column to another as he spoke.



**Figure 16: Related sources of information**

Some people worried that HCAT had too much influence over local groups. Robin, HCAT director and Chair of the Community Council, knew that people worried about overlapping networks leading to concentrations of power. This was felt in particular by people who opposed the wind-farm. HCAT aimed to combat this by co-opting a new director, Louise, and asking the newest directors (Chris, Louise and Robert) to manage the interview process for staff. During the case-study period, HCAT were recruiting for two part-time posts, and Monty’s post as Action Manager. (Monty successfully reapplied). Robin also described how information passed through networks beyond their control, becoming distorted. In this context, HCAT need to communicate with people who are both informed and misinformed,

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<sup>49</sup> He chose his research name after Montgomery Clift, though he does not resemble him.

including people outside Hill who are affected by HCAT projects like the wind-farm.

### 5.3.2 Meetings and face-to-face gatherings

During the case-study period, HCAT had an office in the centre of the village: a terraced cottage that they leased from the local council (See STIN Study HCAT Office, in Appendix 28, summarised in Table 18, p146). There is a front room, where people could drop in and hold meetings, and another room, where staff could work on projects. As this office was central, the HCAT sign outside was an important way people became aware of HCAT and the large windows were useful for sharing information, such as advertising events and job posts.

**Table 18: HCAT Office**

HCAT Office (Trust office)		Key quotes
	Two rooms + facilities in a terraced cottage in the centre of Hill. Monty worked there and people dropped by to see him or to pick up stuff (e.g. food waste bags and bins, when HCAT were running a food waste pilot). Groups also met in the front room; their leaders had keys.	“I meet [Monty] quite often at the Trust office, which no doubt will be the [Resource Centre] when that’s built. [...] I often walk down to the village to get a bit of exercise and take the paper and just pop in” (Chris, HCAT’s Treasurer).
Public/ non-public	Not public, though people were welcome to drop in when Monty was there. However, a public presence for HCAT, as the windows looked directly on to Hill’s main street and a large HCAT sign hung on the outside wall.	“I’ve never been
Control/ identity	The local council own the office. HCAT leased the office, until the end of their lease, when they were asked to move out. They moved back in for a few months when the council agreed to let them use the building without charge. Important part of HCAT’s public identity.	frightened of going in and asking “Why don’t we do something about this?” or, you know, things like that” (Philippa).
Used for/ motivations	Used for meetings, organising, contact, fundraising, and sharing information (dropping in to ask questions or catch up with Monty; posters in the windows).	“Being such a small place, you know, you pass the [Action] Trust office quite a bit. And obviously there’ll be posters, or bump into [Monty] and you’ll find out some information” (Barbara).
Issues/ attributes	When Monty is working part-time, the office is only open a few days a week.	
Resources	Rent: £400 per month, paid from grants. Plus bills. Desktop computers, wifi, and a printer. Monty managed the office and contents.	

The lease ended six months before HCAT could move into the resource centre they were building, about 100m down the road. The council asked HCAT to move out and Monty sold the office’s contents (e.g. HCAT’s furniture), via the Facebook Group, to raise money for the “I love Hill” fund. Monty tweeted a photo, to the local council, of the HCAT sign being taken down. It features sad-looking children holding the sign (Figure 29, on p196). One of Hill’s

local councillors observed this process, apparently on the Facebook Group, and expressed his dismay in a post. He arranged for HCAT to move back into the office rent-free, until the resource centre was ready. This recognised that HCAT were providing some services that could be seen as the Council's responsibility, as well as the difficulty of leasing the building. At the end of the case-study period, HCAT moved into the new resource centre. They later arranged for a much-needed pharmacy to move in to the old office.

HCAT directors meet about every other month, mostly in each other's houses, but sometimes in the office. Records of these meetings are informal and shared via email. Louise had just become a director and only been to one meeting; she did not receive any record afterwards. Between meetings, directors communicate by email and phone, as well as meeting face-to-face in the village. HCAT's chair, Bill, values frequent, informal face-to-face contact to keep up to date and attend to potential problems. HCAT holds its AGM in the village hall. (See "HCAT AGMs" on p154).

Hill Community Council meets monthly in the village hall. Meetings are open to the public. Some meetings include visits from external organisations. The CC hosted a meeting with representatives from Network Rail and from the local council, to discuss plans for a new level crossing across the railway. Minutes from CC meetings *may* be published on the Hill.org website, but none are published in the case-study period. Robin, the CC's chair, wrote an update about various news and encouraging people to stand for election to the CC. Monty posted this on the Blog and Hill.org, and arranged for it to be inserted into Directory Magazine. Like HCAT, the CC rely more on emails and phone calls than formal minutes. This was not recognised as a transparency problem by people within these email networks. Other organisations associated with HCAT, such as the Allotment Association and Gala Committee, meet regularly, in the Trust office and each other's homes. They also meet through daily life and communicate by email and phone. The Allotment Association also send representatives to Community Council meetings.

Specific locations in Hill support face-to-face meetings, both premeditated and fortuitous. Parents meet at school events, on the school run or in the park. People meet at organised events, like fundraising events, the Gala, and cycling meetups (runs). HCAT had a trestle table at Hill Gala, which they had covered with information about the woods' path project

and the new resource centre. However, their marquee was taken down, due to high winds, and it rained on their information. A Christmas fair, held at the arts workshop, was mostly organised by Monty. HCAT had stalls for information-sharing and fundraising.

The Scottish Government's Directorate for Planning and Environmental Appeals (DPEA<sup>50</sup>) held its inquiry into the proposed Westhill Moor wind-farm in a neighbouring village (p163). The local council had rejected the wind-farm application and the developers were appealing. HCAT were involved in the proposal to build the wind-farm. People from HCAT and Hill Community Council attended the inquiry meetings as necessary. A comprehensive correspondence, of 748 emails, statements and reports, is archived on the DPEA website and summarised in Appendix 29.

### **5.3.3 Media (email, phone, flyers)**

There is an email list for HCAT members. Monty uses it to share specific news, rather than as a regular newsletter. The researcher did not gain access, but interviewees discussed it: "I certainly get the emails regularly. So I think there's sort of projects working their way through and I think more things will happen, once the new resource centre's up and running. [...] [Re the last email:] I think it was about the solar panels going onto the roof of the building" (Philippa). The email list uses a free e-newsletter system, MailChimp<sup>51</sup>. It is broadcast style and does not support discussion. From information provided by MailChimp, Monty sees that emails are not opened when the information has already been posted elsewhere. Chris followed HCAT projects via the email list and this encouraged him to volunteer: "And then once I'd got into all that circulation I began to be more and more aware of the Trust and what it was doing." At the workshop, Monty said there were about 100 people on the email list and 100 on the Blog email alert list, and that he generally posts information on the Facebook Group before he sends it to the email list.

Monty uses email to communicate with individuals. Barbara, chair of the Allotment Association, noted that Monty asked for her help via email. Chris described HCAT directors working through email, both for operational tasks and to support more strategic planning. This system has disadvantages for people, like Robin, who are involved in many groups and projects, though Robin also valued this overview. Monty felt that working through email was

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<sup>50</sup> <https://www.dpea.scotland.gov.uk/>

<sup>51</sup> <http://mailchimp.com/>

often more efficient than face-to-face meetings. Monty could also choose when to circulate information more widely. Louise described how she found out she had become a Trust director when she was cc'd into their emails. Louise later ensured the outcomes of the interview process were carefully recorded and shared, by email. Groups like the Allotment Association and Gala Committee (p157) also use email to organise.

#### **5.3.4 Posters, flyers and Directory Magazine**

Paper-based one-to-many communications, including posters and flyers, are among HCAT's most effective communication methods in this village context: "Internet's great, but, at the end of the day, basic stuff: leaflets and posters are still very important part of your mix when you're trying to communicate with a group of people, of any description. [...] Most people go to the shop, most, a lot of people will go to the post office. So those are the two main places that you've always got a poster up" (Barbara). The arts workshop is a useful space for posters and flyers. Certain flyers may be distributed via the primary school, put into children's bags. HCAT pay for the Allotment Association's posters and flyers. See also the STIN Study of Directory Magazine in Appendix 28, summarised in Table 22, p157.

#### **5.3.5 Online spaces**

HCAT's main online spaces are modelled as participation spaces. (See the STIN studies of the Hill.org website, Hill blog, Facebook Group, Facebook Page and Twitter account in Appendix 28). The use of email is outlined above. In addition, HCAT's aims are published online in: annual reports; consultation reports; documents submitted to the wind-farm inquiry; and official listings, such as Office of the Scottish Charity Regulator<sup>52</sup> and Community Trust directories<sup>53</sup>. The Community Action Plan is published on Hill.org. HCAT also use fundraising websites. Associated groups may have their own online spaces: e.g. the Allotment Association have a Facebook group and website.

#### **5.3.6 Events**

The use of participation spaces, and other communication forums, responds to specific events. Below, accounts of five projects or events follow their timelines and illustrate the role of participation spaces in HCAT's work. Together, these narratives describe HCAT: its characteristics, aims, activities, and the people and groups involved. Focusing on

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<sup>52</sup> <http://www.oscr.org.uk/>

<sup>53</sup> <http://www.dtascot.org.uk/>

participation spaces highlights the relationship between these elements and the participants' use of technologies. This is mapped in a timeline diagram for each event. Each participation space is also summarised in an information table, which provides an overview of the space, including the most salient characteristics of which influence its use. The projects and events described below:

1. Path-clearing in the woods;
2. HCAT's AGMs;
3. Hill Gala;
4. Building the resource centre;
5. Westhill Moor wind-farm.

#### **5.4 Path-clearing in the woods**

The woods path project is an example of HCAT supporting a community initiative. This project, led by Fred, aims to clear and mend paths in a local wood, in order to encourage their use by off-road cyclists and walkers. Path-clearing days bring people together to work on the paths. These events also include bush-craft and social activities, aimed at children and led by the Forestry Commission. One path-clearing day, attended by 25 people, was held just before the case-study period. Another was held in June 2013 and attended by about 35 people. At the beginning of the project, Fred liaised with the Forestry Commission and Monty, and set up a Cycle-Path Development Group. Fred found out who owned the land from chatting to a local farmer. The original project was ambitious, including jumps and a car park. A news item was posted on Hill.org, in April 2012, using photos from other places as examples. This attracted 17 comments. Some were supportive, but many, especially from people who lived near the wood, were critical of the focus on cyclists, worrying that these would have an adverse effect on both pedestrians and the environment. This volume of comments is unusual for Hill.org (Table 20, p151). The comments caused the group to re-think their plans into a smaller-scale community project, with a greater balance between improving facilities for walkers and cyclists. Fred contacted commenters, via Monty: as a Hill.org admin, Monty could access commenters' email addresses

Figure 17 on p151 shows the woods' path-clearing events on a timeline.

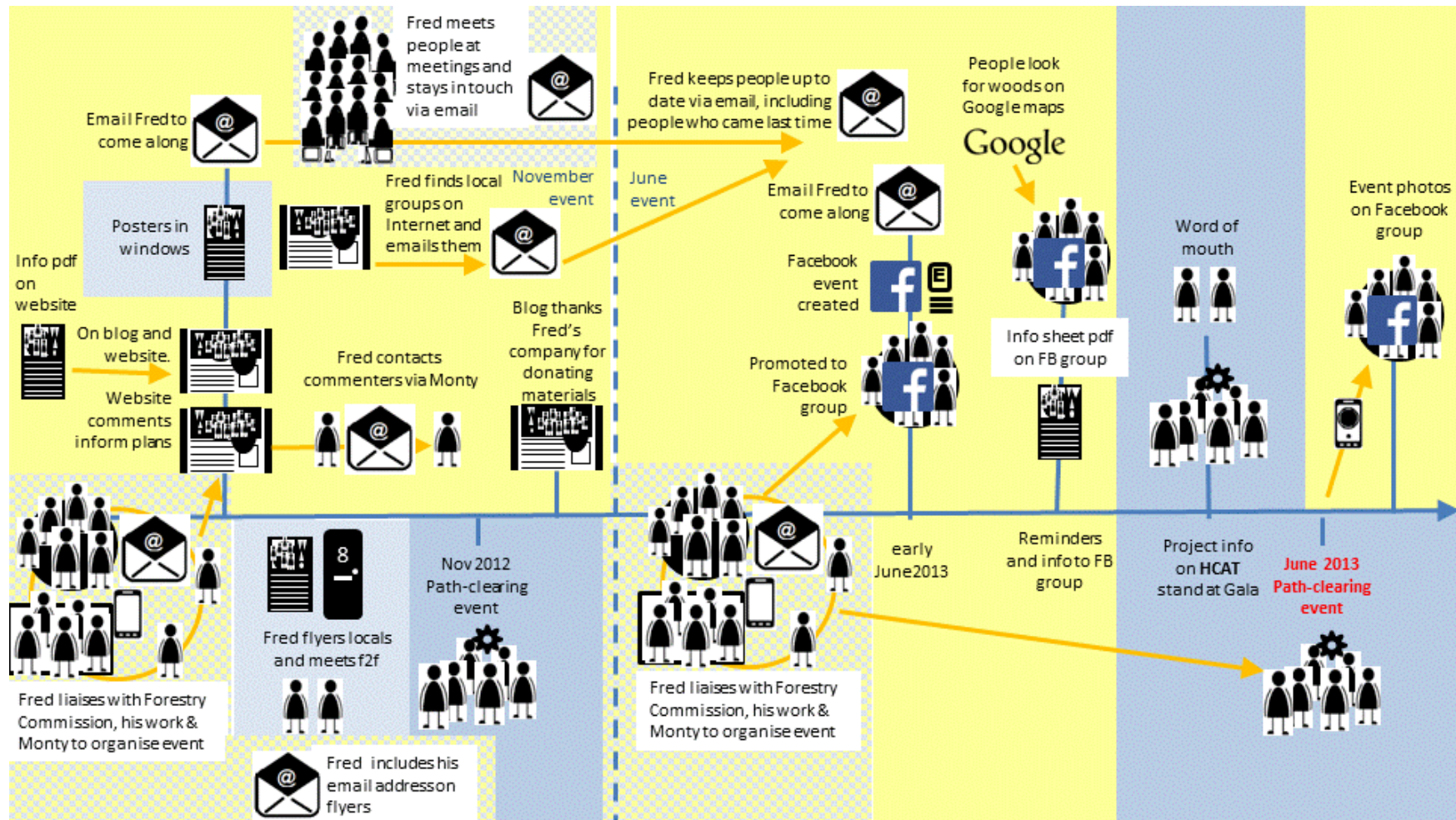



Figure 17: HCAT Events – Path-Clearing Timeline  
See Key to timelines on p155.

**Table 19: Hill.org website**

Hill.org website		Key quotes
 <p>The Hill.org website was created by an external design company, before Monty joined HCAT. It uses a bespoke Content Management System (CMS). Monty is the main source of content, posting news but rarely updating other sections. Other people have admin access to the CMS, including Rowling (who runs the Arts Workshop) and Armstrong (as a Community Councillor). People do check the website, though most felt it was out of date. News posts attract very few comments: none in the case-study period.</p>		<p>“There is obviously the website, but that’s not a dedicated Trust website, that’s more about the community as a whole. And the reason I think that’s a *good* thing is, I think you need to understand the community as a whole, before you understand the Trust and what it’s trying to do” (Monty).</p> <p>“We’ve been looking at the web page, [Hill.org] – the web pages – and realised that it’s not really fit for purpose. It’s difficult to update. Nobody’s got ownership of it. It’s owned off-shore, if you like. The software, the interaction is owned by a 3<sup>rd</sup> party company, who charge us a lot of money for it. And it’s not really fit for purpose” (HCAT’s chair, Bill, workshop).</p>
Public/ non-public	The website is public. It is on the first page of Google search results for Hill’s real name.	
Control/ identity	Monty is the main admin, but he does not really take ownership of the site. Its identity is aligned to Hill village, rather than HCAT. Information about HCAT is provided with other community groups. The website reflects HCAT’s priorities, but highlights outdated projects and content.	
Used for/ motivations	Potentially, a source of information about the village, including businesses and community groups. Monty adds news items (though not as consistently as on the Blog or Facebook Group). People look for updates and information (e.g. minutes of meetings, which are not uploaded)	
Issues/ attributes	As a community website, it lacks involvement. Information about HCAT is rather limited. During the case-study period, there were technical problems which prevented Monty and Armstrong logging into the CMS. News posts are mirrored on the Blog (Table 25).	
Resources	The website is expensive (ongoing costs). The bespoke CMS is inflexible. The developers do not provide much support. Monty needs time and specific skills to update content.	

Fred contacted people who lived near or visited the woods. He felt that HCAT’s wind-farm consultation had not made enough effort to contact people near the proposed wind-farm (See “Westhill Moor wind-farm”, p163). Fred Googled for groups who used the woods, then emailed them. He dropped letters through the doors of people and organisations local to the woods, encouraging them to email him. He tried to talk to people face-to-face. Fred included his email address on all publicity materials, on and offline. He asked people to let him know they were coming to path-clearing days by email; he took email addresses when people approached him about the project at other meetings. Fred used these email



addresses to keep people up to date. During the workshop it became apparent that Fred’s email communications included an email list, set up by Armstrong.

With Monty’s help, the first path-clearing event was advertised on Facebook and through posters in Hill. Monty created a Facebook event and invited all the members of the Hill Facebook Group (Figure 18, p153). News also spread by word of mouth: “So, using, again, [Monty] and Facebook and posters up the old-fashioned way in the Post Office, the local shop –things like that. And really word of mouth. Lots of people coming up to me and saying you know “I hear you’re doing this. [Monty]’s told me, such and such has told me, the other Mums, I’d be interested in getting involved” (Fred). The second event was publicised on Facebook and through the network Fred had established, e.g. by email. Because posters were not created this time, Rowling and Chloe, active HCAT members with young children, wondered if people who did not use Facebook had missed it, though more people had attended. Promotion via face-to-face contact and email may be effective, but may be less transparent. During the workshop, Monty said that this project had been HCAT’s most successful volunteer project, partly due to Fred’s provision of information online. After the case-study period, leadership of the project passed to the Forestry Commission.

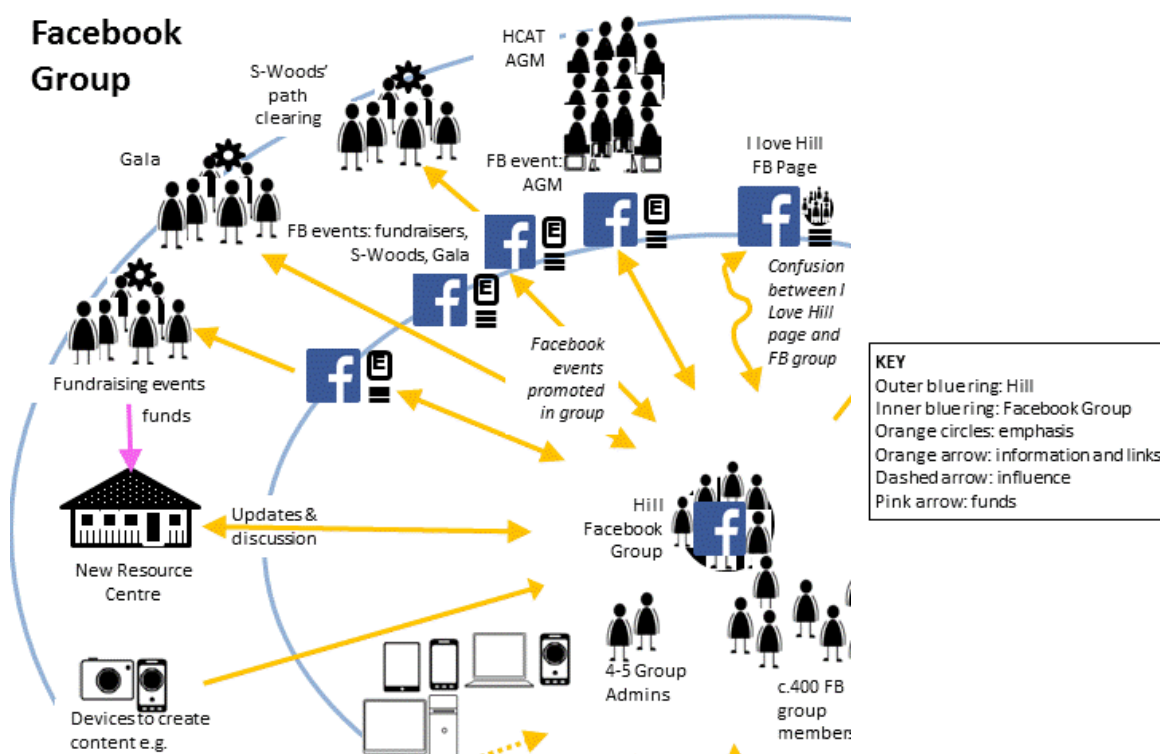



Figure 18: Hill Facebook Group – Extract from Overview of Interactors diagram: FB Events

**Table 20: Hill Facebook Group**

Hill Facebook Group		Key quotes
	The Hill Facebook Group is HCAT and Hill’s most important communication forum. About 20% of Hill village are members and many share information to people outside the group. There are several admins, including Monty and Armstrong. The Group is busy. Various people post about diverse topics; comment threads are lively.	“Facebook is probably the most sort of *immediate* type of communication that goes on. [...] You get people selling things, you get people doing charity stuff, you get people doing things that are *nothing* to do with the [Action] Trust and then things that are to do with the [Action] Trust. [...] Certainly from an online point of view, the Facebook Page is definitely a major resource” (Barbara).  “You just go: type it on Facebook, send/post whatever. And you think “Oh, the whole world’s going to know about it”” (Rowling).
Public/ non-public	Non-public. The Group is closed: people need to be members to post or read posts.	
Control/ identity	Monty founded the Group <i>before</i> he worked for HCAT. Its identity is very much associated with the village community, rather than HCAT; participants call it “the Community Group”. This shared identity encourages people to post.	
Used for/ motivations	People use the Group to share and get information, to promote events, for fundraising, for buying and selling, to get people’s opinions, and to socialise.	
Issues/ attributes	The Group is an essential way for people to share information. However, this can lead to exclusion if people forget that other people do not use the Group (and potentially do not use Facebook/ the Internet).	
Resources	The Group is effectively free. This is important in terms of the Group being shared by the community –no one person or organisation pays for it. However, some worry about Facebook’s commercial and information-sharing model. The group is busy; it would take time to read all posts.	

## 5.5 HCAT AGMs

HCAT Annual General Meetings are public communication forums: key ways for HCAT to share what they are doing and for people to get involved. Reflecting the data gathered, this description covers three AGMs; the timeline (Figure 20 on p160) is a composite. AGMs were held in the village hall until after the case-study period, when the 2014 meeting was held in the resource centre. Prior to each AGM, the documents are emailed to members: agenda, Directors’ Report, accounts for the previous year, minutes of last year’s AGM. Documents *may* be posted online, excluding the minutes, which are unratified. HCAT’s *Meetings and Papers* page on Hill.org contains the agenda and accounts for the 2012 AGM, but no minutes for that year and no other AGM papers.

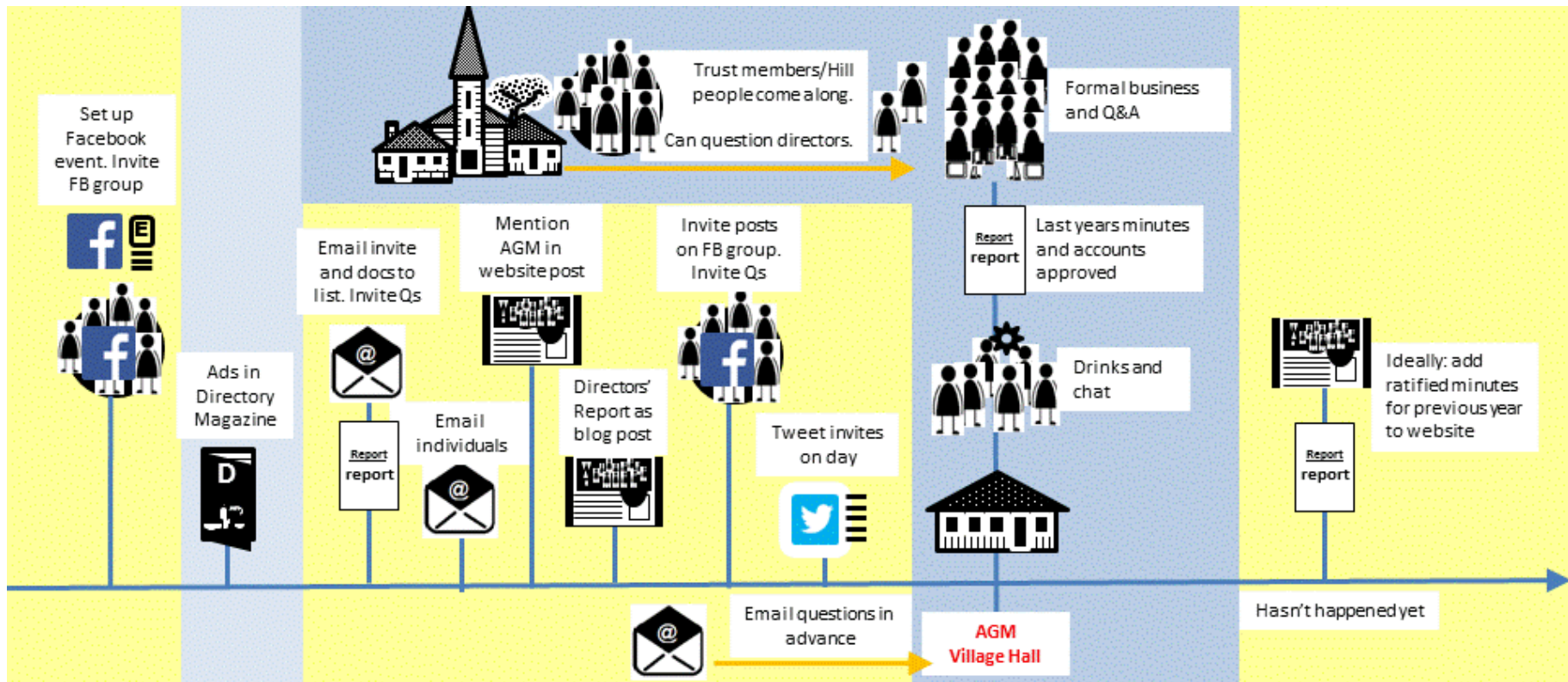



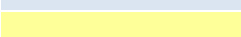



Figure 19: HCAT Events – AGMs Timeline

Table 21: Key to timelines

Offline: outside public space	
Offline: public space	
Offline	
Online	
Online and offline	


### **5.5.1 The 2012 AGM**

The main focus of the 2012 AGM was the results of the wind-farm survey, where a majority agreed that the village should get involved in the proposal for a wind-farm at Westhill Moor (see p163). Posts on Hill.org (Table 19, p152) and the Blog (Table 25, p164), prior to the meeting, reflect this focus. Chloe was prompted to attend the 2012 AGM by a targeted email from Monty: "I think [Monty] emailed and said "You'd expressed interest in finding out more about the [Action] Trust, the AGM is on Thursday."" (Chloe); Chris heard about the AGM via the HCAT email list. Philippa felt that the AGM was an opportunity to question HCAT about their work, even critically, though she struggled to attend. This AGM led to Robert and Chris increasing their engagement with the Trust, especially by sharing their professional skills. Robert's knowledgeable questions prompted one of the directors to phone him and invite him to become more involved. A Gala Committee member also used this opportunity to call for more volunteers. A Blog post, after the AGM, thanks people for coming (and especially volunteering) and gives an overview of the meeting. Armstrong was unhappy with the outcomes of this AGM, in terms of the wind-farm proposal; he did not think the meetings were an effective way for people to influence HCAT's work: "it doesn't seem to – it seems that the board just gets on with what it's doing." (Armstrong).

### **5.5.2 The 2013 AGM**

The 2013 AGM was not mentioned on hill.org or the Blog. Presumably the documents were sent to the Trust email list: "they send out the agenda and last year's minutes ahead, and they always give plenty of notice of when the AGM's going to happen" (Philippa). Monty publicised the meeting via a Facebook event. The event page lists that 273 people were invited (the Facebook Group, plus other "friends"); five people are listed as going and ten as "maybe". The event received no comments, apart from the researcher checking the start time. Monty posted links to the event on the Facebook Group at regular intervals, inviting people to come along, find out what had been happening, ask questions and have an informal drink. Hill Community Facebook Group is summarised in Table 20 on p154. Monty invited people to submit questions by email to be answered at the meeting. A comment on one post included apologies and asked about minutes. Monty replied that minutes would be taken. Two tweets on the day of the meeting invited people to come along. The Facebook Page was not being used at this point (Table 23, p159).

**Table 22: Directory Magazine**

Directory Magazine		Key quotes
	Free local A5 colour magazine/ directory, delivered to all homes and businesses in the area. Carries information about local groups and events, including articles, adverts, and inserts from/about HCAT, Hill CC, Hill Gala.	<p>“Because I know that comes out every month and I know that there’ll be something in there about [Action] Trust activities. [...] And that comes through the door. And, yeah, I do read it, because it’s, you know, it’s yeah, ok, it maybe, what, 80% advertising, but, that can be quite interesting as well. But the rest of it is useful. I just check-up what’s going on, you know” (Barbara).</p> <p>“Also in [Directory Magazine] a flyer with details of the [Hill Sponsored] Walk 2013 registration page at [fundraising website URL] - join today” (Facebook Group post by Monty).</p>
Public/ non-public	Public in villages where it is distributed. (Also available online in a magazine-reader format.)	
Control/ identity	A non-profit community venture, based in Hill. There are 5 hyperlocal editions. People in Hill refer to articles in the magazine in discussions on the Facebook Group.	
Used for/ motivations	People flick through the magazine because it is delivered to their homes and because they have previously found useful information there. Directory Magazine lists local events, including news articles about HCAT (e.g. about the new resource centre). HCAT also advertise there, including adverts about the AGM and the Community Council update as an insert.	
Issues/ attributes	Experienced as push technology. Available without Internet access. Directory Magazine has a Facebook Page; their posts are sometimes shared by the “I love Hill” Page.	
Resources	Free to readers; supported by advertising. HCAT pay for some adverts and inserts. Requires attention to flick through adverts to find news.	

The 2013 AGM was advertised in Directory Magazine (Table 22, p157), two months running, with full page advertisements, including an offer to help with childcare. Presumably missing this, having young children prevented Chloe attending. She was interested in the elusive minutes: “I haven’t seen those minutes anywhere, you know, they don’t seem to just get circulated. Which I \*guess\*, probably they \*ought\* to be circulated to anybody on the email address, [...] because it’s a public meeting that anybody could go to”. Monty took minutes, but they are not published on Hill.org. Robin, Monty, and Bill noted that report-writing is likely to slip in organisations which predominantly run on volunteer labour, though Monty is not a volunteer. Interviewees said they would like to go to more Trust meetings, but did not have the time: they were already volunteering and had family and work commitments. Directors were concerned that attendance was dropping over the years, whereas they should make more of this opportunity for transparency and engagement.

### 5.5.3 The 2014 AGM

The Directors’ Report was published on the Blog, but the post does not include information

about the AGM. A Facebook event was created: 656 people were invited, Monty said he was going, two said “Maybe”. There was no AGM post on the public Facebook Page. The Twitter account mentioned the AGM twice, including a link to an archive BBC news article, which described the events that led to HCAT’s establishment.


## **5.6 Hill Gala**

The annual Gala is a village fair or summer fete: a parade through town, followed by stalls and events in the park. Figure 20, on p160, shows the use of communications forums, especially participation spaces, along the Gala timeline. Over the last thirty years, Hill had changed: the army base increased and then reduced, new housing was built, the population grew, and the economic base changed. Hill residents, wanting to strengthen the community, revived the Community Council and Gala. At the same time, the village received an environmental compensation payment from the neighbouring council. The Community Council set up HCAT to manage this fund. HCAT and the Gala are separate, but share their aims: to bring the community together and improve village life. They work together, for example to organise events at Christmas, and their fundraising overlaps: the Gala contributes to the “I love Hill” fund, which also supports the Gala. The Gala is an important opportunity to share HCAT information: “like at the Gala day, the [Action] Trust always has a stand [...]. And that’s a good way of getting information over, as well” (Rowling). At the 2013 Gala, HCAT’s stall displayed information about the new resource centre and projects to build new paths, including the woodland project described above. Monty’s wife helped out at every Gala stall.

The Gala Committee meet regularly, and work via email between meetings: “Somebody will take minutes and they’ll get emailed around us afterwards” (Chloe). A small number of people do most of the work. Recruiting volunteers is a challenge and a frustration. The Gala Committee ask their friends; they text people and recruit at the school sports day; they posted a request on the Facebook Group. They had an arrangement with other groups to share funds, in return for the groups managing stalls. The people who do most of the work on the Gala are also people who volunteer for other activities and take on responsibilities in the community. A couple of people suggested that the small number of people running the Gala and the lack of volunteers both caused and was caused by control issues: “People need to take ownership of things, don’t they? Otherwise they don’t see the point in doing it. [...]

and we've had this to do with Gala –there's a very small team of people running Gala" (Chloe). Fred would like to get involved, but was already over-committed by volunteering, work, and a young family. His involvement would help to even up the gender disparity: the Gala Committee are women (whereas almost all HCAT directors are men).

**Table 23: "I love Hill" Facebook Page**

<b>"I love Hill" Facebook Page</b>		<b>Key quotes</b>
	A public Facebook Page to promote Hill and share information of interest to the Hill community. The Page was created in 2011, but dormant from 2012 to May 2013, when Monty revived it. Shares posts from other local organisations' pages, e.g. pictures of local people having passed their driving test, from the driving school's page.	"So it gives this, this positive angle on [Hill] and that people could share that on their pages and like it and do all those things. So, really, and that was the public face of [Hill]" (Monty).
Public/ non-public	Public, though non-Facebook members may be unlikely to access it. Facebook Group members that like the Page experience some confusion in their timelines, as it's not clear which source posts come from (public Page or non-public Group).	"There's a bit of confusion going around the whole thing. [...] There's obviously the community, the *[Hill]* community Facebook [Group] is what the majority of people use, and that is what I use. And I get a bit confused over the fact that there's the "I love [Hill]" one, as well. [...] because I get the feeds from them all. I'm not entirely ever certain what one I'm on, to be honest" (Rowling).
Control/ identity	Identified with Hill Village, rather than HCAT. Monty controls. Very few comments.	
Used for/ motivations	Used to promote local businesses and events.	
Issues/ attributes	Confusion over relationship with Facebook group. Monty thought that Facebook were changing their support for groups, so revived the page. This change did not materialise. However, Facebook Group members were suspicious about what they saw as an attempt to replace their community Group with this more narrowly defined and owned Page. Although this was explained, only a small proportion of the Group could be persuaded to like the page.	
Resources	Effectively free. Monty's time needed to add/ share posts.	

The Gala Committee use word of mouth, especially through school networks, and paper publicity: Directory Magazine, posters, programs sold in the shop and Post Office. In Gala month, Monty posted about the Gala seven times on the public Facebook Page (Table 23, p159) and created a Facebook event. He created 11 posts on the Facebook Group: sharing the event, providing information, drumming up enthusiasm, and thanking volunteers. Other Group members created ten posts about the Gala, including two looking for volunteers and three thanking people. Hill Twitter tweeted twice about the Gala, retweeted by Monty's personal account. One Blog post invited people to question HCAT about the resource centre at the Gala. People posted photos on the Facebook Group; no photos were posted on the Blog or Hill.org.

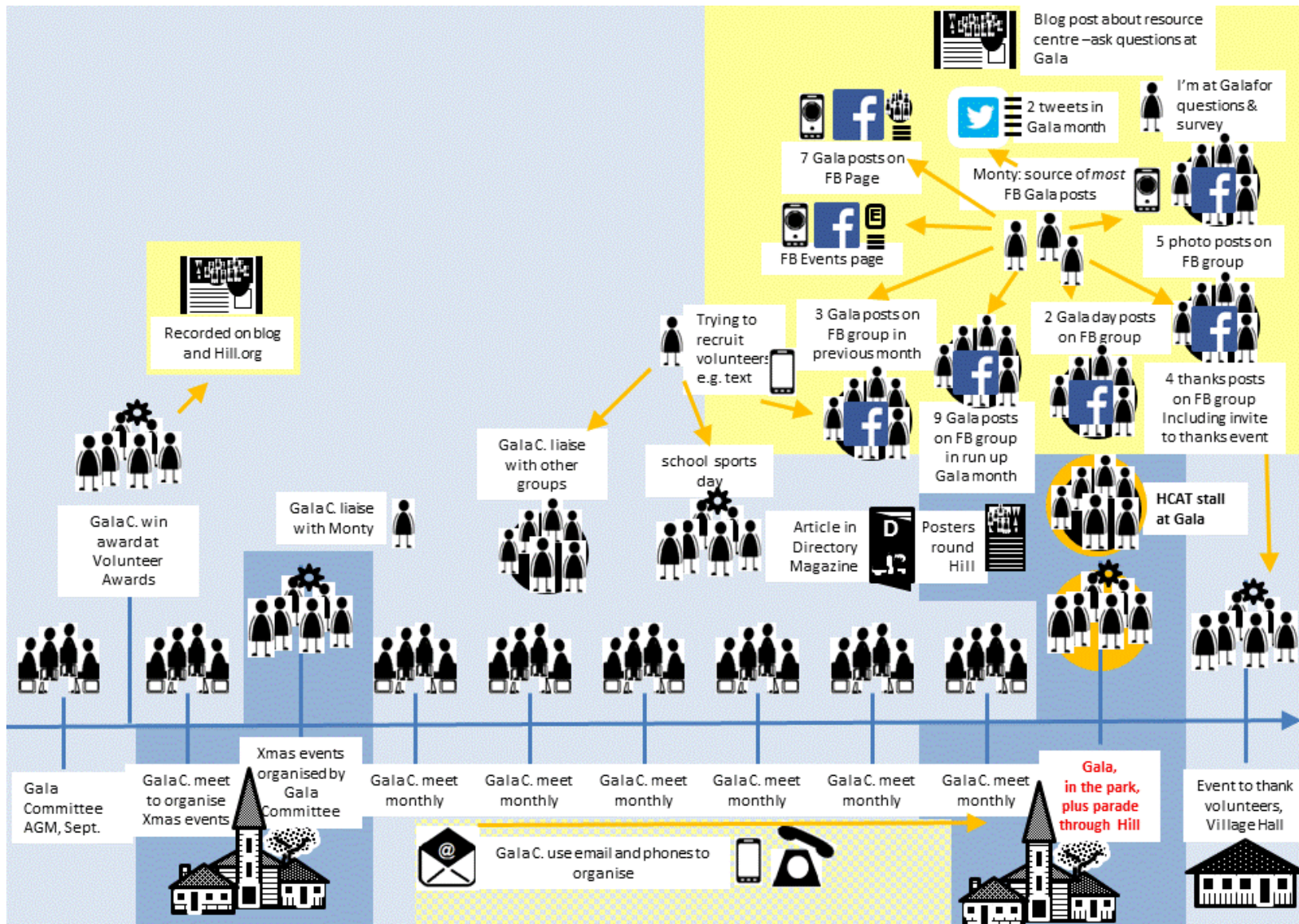


Figure 20: HCAT Events – Gala Timeline



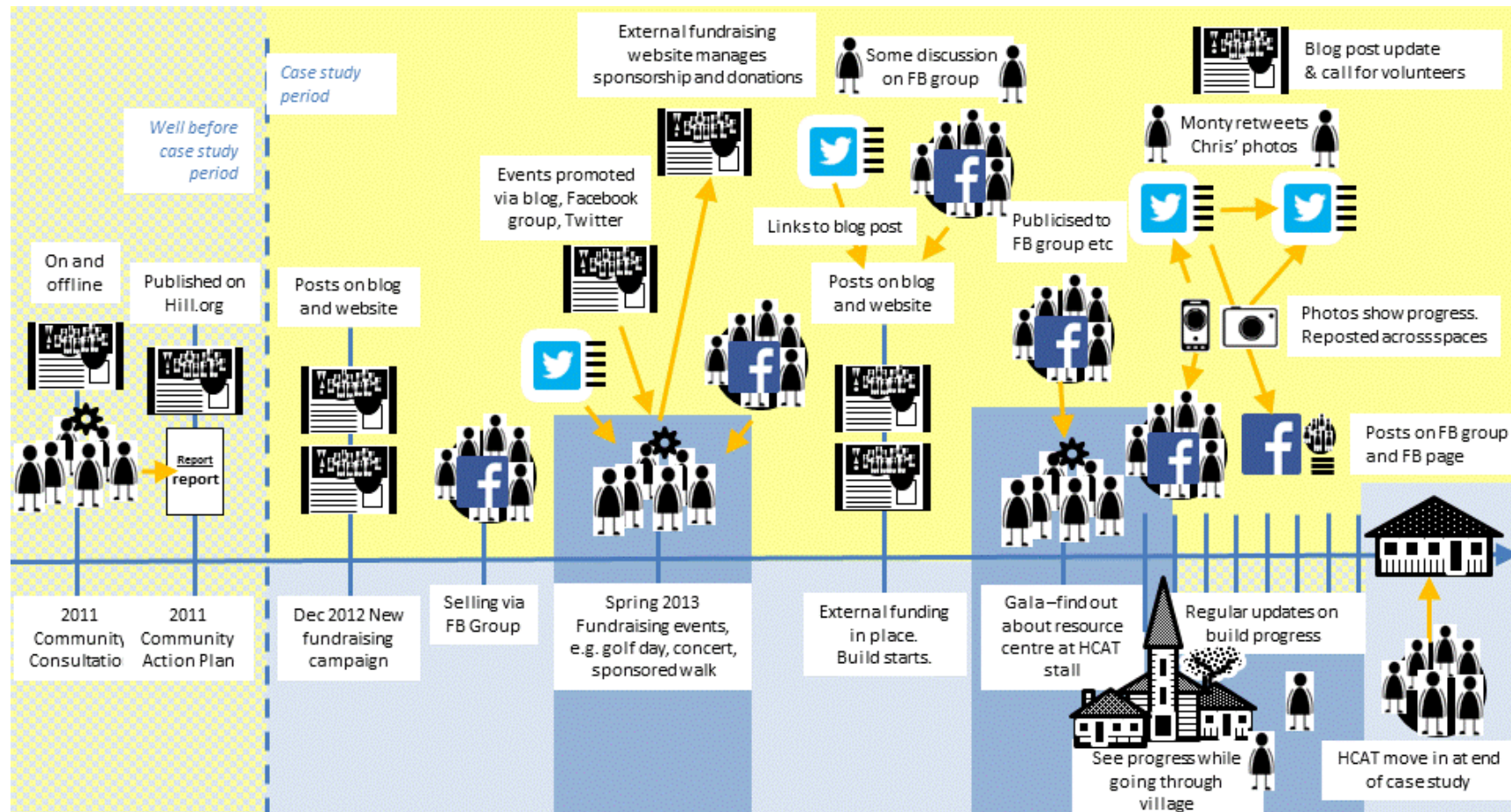


Figure 21: HCAT Events – Building the resource centre Timeline  
See Key to timelines, on p155

## 5.7 Building the new resource centre

Figure 21, on p161, shows the use of communications as the resource centre was built.

During the case-study period, HCAT were following the Community Action Plan which came out of their 2011 Community Consultation. One category of actions concerns improving facilities in Hill, including the building of a new resource centre. This would be “a community hub” (Philippa), hosting activities and open for people to drop in. Hill does not have a café; it has a large dark pub and a takeaway. Armstrong hoped that HCAT’s new home would make them more accessible and open to influence. People hoped that the resource centre would be an information hub, with *noticeboards*.


The resource centre is 80% funded by external grants from the Scottish Government and EU. HCAT raised the other 20% through the “I love Hill” fund. During the case-study period, fundraising events included a golf day, a concert, and a sponsored walk. People sold goods via the Facebook Group, giving the proceeds to the fund: Monty sold the contents of the HCAT office, when the Council asked them to move out. Some people did not understand the funding mechanisms and suggested incoming money should be spent on something else. Monty fielded these comments on the Facebook Group. Monty used all of HCAT’s online spaces to support fundraising: Hill.org, the Blog, Facebook Page, Hill Twitter (Table 24, p163), but mostly the Facebook Group (by about 10 posts to 1. See Appendix 28 “HCAT: Posts about the new resource centre”).

Monty reported on the resource centre build via all Trust online spaces, especially social media: posts centre on photos. Many posts are essentially links to each other. Chris documented the build by posting photos of its progress on his Twitter account, especially for Bill, who was away at the time. Chris’ account is set to private (and Bill does not use Twitter). Monty (not noticing the privacy level) re-posted Chris’ photos of the resource centre build onto the public “I love Hill” Facebook Page. This caused the photos to be autotweeted by the Hill Twitter account.

The workshop with HCAT participants was held in the new resource centre. Participants, especially Bill, emphasised that the resource centre has become the hub of HCAT communications. Monty described how Hill’s older population, who had not been using the Facebook Group or accessing HCAT information via other online spaces, have become

involved by dropping in. Paper communications are vital to this predominantly offline population, and useful to others. The new resource centre sits a little further back from the road than the old office, so posters displayed in its windows are less prominent. However, it includes a large noticeboard outside and people are encouraged to drop in.

**Table 24: Hill Twitter**


Hill Twitter		Key quotes
	Monty runs the Hill Twitter account. It follows and is followed by people and organisations with an interest in Hill and/or an interest in HCAT (e.g. Other Action Trusts).	<p>“If I wanted [local council] to be aware of something, I would put @[local council]. [...] and you can tell that it goes to their communications department. They all go: “Oh! Oh! This is on Twitter! What are we going to do?” kind of thing” (Monty).</p> <p>“They’re building their [resource centre] at the moment, and [Chris] is very good at keeping everyone [up to speed...]. So he takes a photo and posts it, so that everyday there’s a new photograph and just a comment about what’s been happening” (Robert on Chris’ tweets).</p>
Public/ non-public	The account is public, though most likely to be seen by people that follow it. The account reposted Chris’ non-public tweets, as Monty posted the pictures to the Facebook Page, which auto-tweeted them via the Hill account.	
Control/ identity	The account is identified with Hill Village, rather than HCAT. But Monty is its only admin. He also retweets Hill tweets from his personal account.	
Used for/ motivations	To share news and events, especially for groups that do not have their own account (e.g. the Community Council). Retweets local news and comments. Autotweets Facebook page posts. Monty felt it was particularly influential on the local council	
Issues/ attributes	Twitter use is emergent among this case study’s participants. They were consciously learning it. Particularly good for mobile communications, e.g. local traffic problems.	
Resources	Effectively free. Monty’s time needed to manage the account.	

## 5.8 Westhill Moor wind-farm

HCAT were involved in plans for a large wind-farm, at Westhill Moor, five miles from Hill. A timeline is provided in Figure 22, on p165. HCAT would invest their foundation money, and profits would be paid to the local communities: up to £10 million over 25 years. In early 2012, HCAT and the Community Council used an external company to consult Hill about this plan, using a mixture of online and offline methods. The results were: 62% of respondents *for* the wind-farm, 18% opposing. Some Hill residents were against it because of potential negative effects on those who lived in Westhill Moor. Fred thought that the method – the online survey – skewed the responses, because it was easy to complete; if it had been decided at a meeting, the balance would have been held by people who invested time to

turn up: “Well, everyone’s going to support it online, because you’re \*that\* far away from it, you know. If you’ve made it “come to the [Action] Trust on a Tuesday night” then you wouldn’t have the same response. You would have had the people that \*cared\* about it there. You would have had “No” as your result. Because people can easily click on a link and have a view on it” (Fred). The consultation ended with a public meeting, held by the Community Council, at which, despite pleas from Westhill Moor residents, the CC decided to back to project.

**Table 25: Hill WordPress Blog**

Hill WordPress Blog		Key quotes
	Monty set up this WordPress Blog when he started to work for HCAT. The Blog is read by some people in Hill, especially those who have signed up to receive email alerts about new posts (including Chloe, Fred, and Rowling). Local people and groups appear in posts. The Blog received 1 comment in the case-study period, but has previously received more, especially on posts about the wind-farm proposal.	“I just started to put out things [...] Trying to make things as open and as accessible and trying to provide information as [easily as] possible, as some people read that. So we do, we try and do everything: Facebook, Twitter, blogs, pictures, whatever” (Monty).
Public/ non-public	Public. The Blog is in the top few Google results for Hill, below Hill.org.	
Control/ identity	Monty controls the Blog. He adds all posts, though one is written by Robin (Chair of the Community Council), and moderates comments. The Blog identifies itself with Hill Village, rather than HCAT.	“Actually the Blog used to come into my inbox, but, I don’t think it has any more, recently” (Rowling).
Used for/ motivations	Monty uses the Blog to promote events and fundraising, and to promote Hill. People read the Blog to get news; people were particularly interested in reading who had won volunteer awards. Email alerts about new posts remind people to visit the Blog.	“the Trust are very good at communicating what’s going on, in terms of Facebook, the Blog, and, the community – [Hill].org, but *only* if you know that they’re there. You know, and sometimes it can get a bit lost, you know, with what’s going on” (Fred).
Issues/ attributes	There is some confusion over the Blog’s relationship to Hill.org. Most news posts are mirrored.	
Resources	HCAT pay for hosting, but this is a small annual amount. Monty’s time is needed to create content and moderate any comments.	

The consultation phase was documented on both Hill.org and the Blog. A couple of Blog posts received comments. Most of these were negative, concerned with the adverse effects on those who lived near the site and critical of the decision-making process. Monty defended the process. Armstrong posted critical comments to posts about the wind-farm on the Blog and Hill.org.

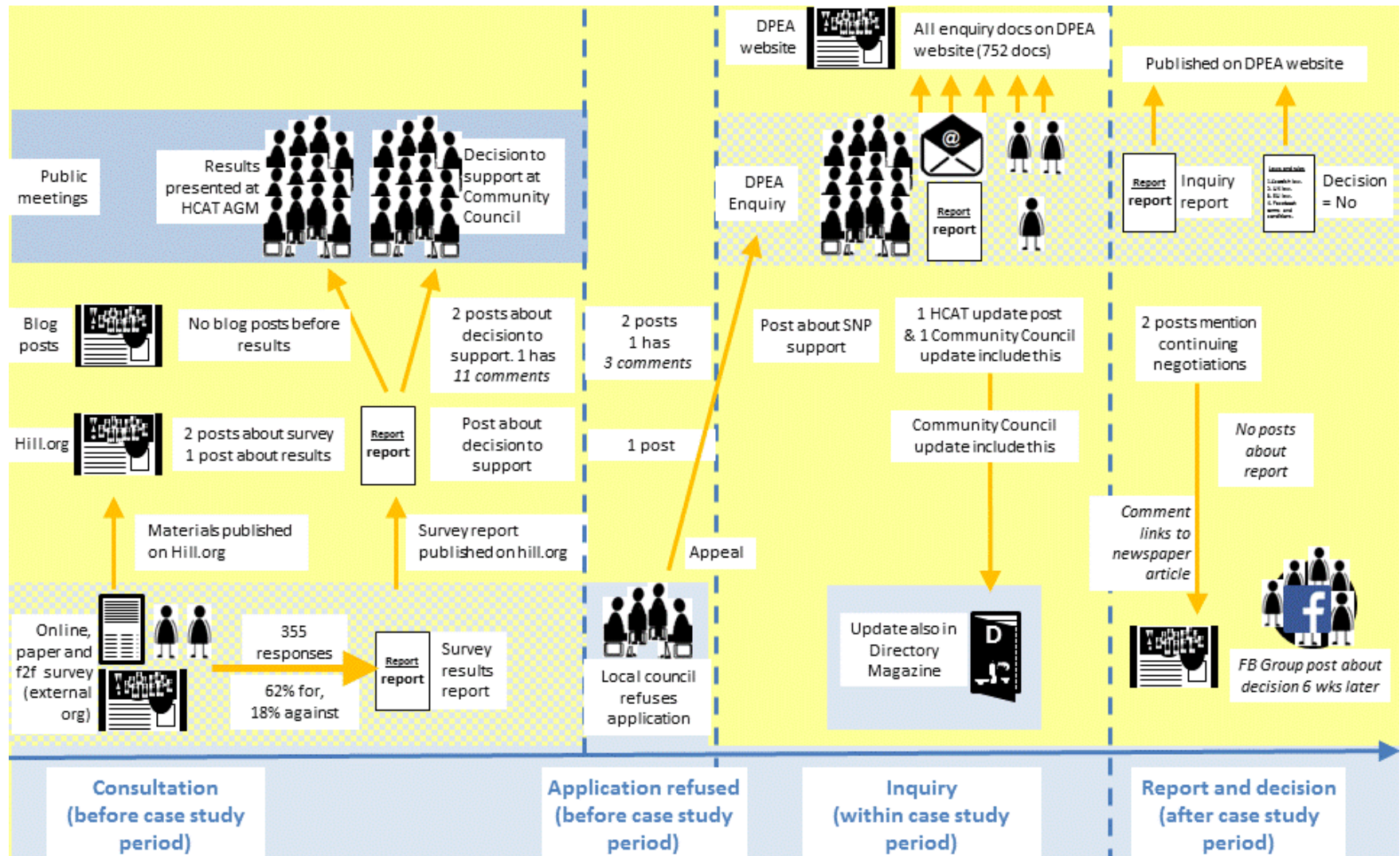


Figure 22: HCAT Events – Westhill Moor Wind-Farm Timeline  
See Key to timelines, on p155.

The wind-farm planning application was rejected by the local council, recorded in three similar posts across Hill.org and the Blog. In these posts, the chairs of the Community Council and HCAT (Robin and Bill, respectively) express their disappointment and criticise the governing bodies for not respecting the wishes of the local population (i.e. their survey). One Blog post gained two comments praising the council's decision and criticising the consultation survey; Monty re-stated the survey's credentials.

The renewable energy company appealed to the Scottish DPEA, who set up an inquiry, which ran through the case-study period. A 2012 Blog post mentions this inquiry, noting the wind-farm could bring £99,500 a year to Hill. In Robin's Community Council update post the wind-farm is used as an example to encourage people to become more involved in community decision-making. Robin's update was a rare public communication from HCAT about this inquiry. For Monty, while the inquiry was ongoing, there was no point in reporting a lack of news. This communication hiatus left people unsure about the status of the wind-farm project and about HCAT's main fund: "the little things that are going round the community probably get discussed more, but I think the [Action] Trust must still be sitting on a pretty massive pot of money. What's happening with that at the moment? I've no idea" (Chloe). All communication topics are not equal and people can be extra sensitive about money.

Controversially, the DPEA held a joint inquiry for two local wind-farm applications, in a village near Hill, but inaccessible by public transport. The inquiry documents are published on the DPEA website, as pdf files. An overview of these documents is provided in Appendix 29. This archive includes emails and reports submitted by people objecting to the wind-farm – local people and people and organisations from across Scotland. Objections include photographs of the moor and bits of local history. Emails reveal communication networks forming amongst objectors, to this and other wind-farms. The correspondence reveals the difficulties experienced by non-professionals trying to negotiate the inquiry processes. Emails express confusion about procedures; DPEA staff attempt to clarify matters. Some DPEA emails include links to the case on the DPEA website; others refer to the website generally or not at all. The website archive includes the precognitions of people giving evidence on behalf of HCAT and Hill Community Council, specifically Robert, vice-chair of HCAT, and a professional with related expertise. Robin and Bill, as chair of the Community

Council and HCAT respectively, are responsible for most of the written input from Hill to the inquiry. The majority of the input in support of the wind-farm comes from the energy company and the legal company representing them.

After the case-study period, the DPEA's interim report concluded that the environmental impacts were probably unacceptable and recommended to refuse the appeal. This was not mentioned in HCAT's online spaces (unless by email). In July 2014 the government decided against the wind-farm. Monty posted about it, six weeks later, on the Facebook Group. At the workshop, Bill and Monty described how HCAT were currently trying to set up a joint hydro project with 13 other communities, increasing their interactions with organisations outside Hill.

### **5.9 Input from the workshop**

A workshop was held with several HCAT members, 14 months after the case-study period. The workshop centred on the "Overview of Interactors" diagrams for the WordPress Blog and Facebook Group (Appendix 28). Discussions indicated that the picture of HCAT's communications contained within these two STIN diagrams was aligned with participants' perceptions and recollections. The STIN diagrams helped to support both thinking and discussion: "It's clearly stimulated discussion, now, among us. And I find diagrams like this are very, very helpful in actually flushing out what you've got in your mind. [...] I found it very helpful" (Bill). Insights from the workshops are presented within the narratives above and the full STIN models in Appendix 28.

### **5.10 HCAT and their participation spaces**

This chapter has provided an overview of HCAT's communication forums and presented the seven participation spaces at the core of the HCAT case study within five events. Looking at these participation spaces, it becomes clear that HCAT is defined by its locality. Its physical bases (office, then resource centre) are central to communications. However, digital technologies are *constitutive*: core organisational activities, especially between the directors, take place via email and phone, and the Hill Facebook Group provides essential ground for HCAT's existence as part of the Hill community. The Facebook Group supports HCAT's organisation, involves people, and provides opportunities for HCAT to influence events. HCAT's other digital tools are a little more peripheral, as the Facebook Group

dominates attention. Hill.org and the Blog provide space for more detailed information, but their ad hoc use can be confusing. HCAT do not have their own online space, but use a semi-integrated collection of spaces; all HCAT's public online spaces are identified with the wider Hill community.

HCAT is the only case-study group with a paid member of staff, or anyone with an agreed communications role. This is reflected by the number of participation spaces closely associated with HCAT and Monty's primary role in creating content. He also provides online communications for related groups, especially Hill Community Council. However, relying on one person for communications, across many spaces, leads to a rather patchy output and potentially dissuades more people's input. Many people create content in the Hill Facebook Group and this is the key to its success: a steady stream of diverse and timely, local content attracts more people in Hill to join the group. As the community expands, it becomes more useful and engaging. HCAT are also the only case-study group with a communications budget. However, their externally designed website, Hill.org, is unsuitable and inflexible; it is unloved, but a continuing expense. Its functions have been taken over by the Facebook Group and Blog. At the end of the case-study period, HCAT's communications are beginning to undergo a major change as the resource centre becomes their new base and begins to be a social and communications hub within Hill.

The findings from this case study are presented and analysed with the findings from the other two cases, in Chapter 7. The next chapter presents the STIN studies for the final case study: City Primary School.



## **6 Case study 3: City Primary School's participation spaces**

### **6.1 Introduction**

This chapter presents six participation spaces from Case Study 3, City Primary School (CPS). It follows the format of the previous two chapters: a description of the group is followed by an overview of their use of participation spaces; then the participation spaces are presented within a narrative of their use. For this case study, one narrative follows the campaign, from when the Primary School Parent Council heard about the sale of the Old High School to the Planning Committee meeting where the Developers' planning application, to convert the High School into studio flats, was rejected. This covers the main events in the case-study time period (see p112). The chapter concludes by highlighting elements of the use of participation spaces in this case study, and then across the three cases. The full STIN studies are in Appendix 33 and interviewee's profiles are provided in Appendix 32.

### **6.2 The City Primary School (CPS) campaign**

The Old High School building, on North Street, is adjacent to City Primary School: it sits within the Primary School's curtilage. City Council sold the Old High School to the Developers, with the sale conditional on planning permission to convert it into studio flats. It had last been used as Council offices, though it had been unused for several years. CPS parents had hoped that the High School would be used to ease overcrowding in the Primary School; they also worried about the proximity of the proposed flats to the Primary School playground. Initially the Parent Council led the campaign against the development *and* started an investigation into easing overcrowding. The parents then split this work into two work-streams: PC Chair led the investigation into overcrowding, working with City Council to find the best solution; Rachel led the campaign against the planning application and building conversion. This case study follows Rachel's group (the "campaigners"). They organised objections to the planning application and lobbied the Planning Committee. The Planning Committee rejected the application. A few months after the case-study period, the Developers successfully appealed City Council's Decision to the Scottish Government's Directorate for Planning and Environmental Appeals (DPEA).

The parents found out about the sale in May 2013 and the Planning Committee rejected the application in November 2013. Interviews took place after this campaign period and there

was no direct access to the campaigners' non-public communications. However, the campaign was observed as it unfolded from the local perspective, including attending a Neighbouring Community Council meeting where this was discussed, the Planning Committee meeting, and through public online articles. The term "case-study period" is used to describe this initial campaign period, rather than the subsequent data collection.

### **6.2.1 Case study 3 participation spaces modelled by STIN analysis:**

- Reply-All Email List
- Parent Council Facebook Group
- The Playground
- City Planning Portal
- The City Chambers
- Hyperlocal Paper

The *Reply-All Email List* was a collection of over 50 email addresses which interviewees referred to as the "email list". The campaigners also used email in small, carefully bounded groups. Parents, carers, and local representatives joined the *Parent Council Facebook Group*. This was used in parallel with the email list. The *School Playground* provided essential opportunities for face-to-face contact, including campaigners distributing paper flyers. The campaigners did not set up a *public* online presence, but the campaign was covered by local media, especially *Hyperlocal Paper*. The *City Council's Planning Portal* hosted information and collected objections. The *City Chambers* hosted the Planning Committee meeting at which councillors voted 7 to 6 against the planning application.

The main communication forums used in the campaign are listed in Appendix 31. These include networks based on people with shared interests and the spaces which bring people together and support them to share information. The main networks centre on the school, such as the Parent Council, Parent Staff Association and Parent Forum. The campaigners seek support from groups involved in the planning process, including local elected representatives, two community councils, Heritage Org, and Planning Advice Org. In addition to the participation spaces described above, the campaigners benefit from sympathetic articles on local media, including local blogs and Evening Paper, as well as appearing on TV.

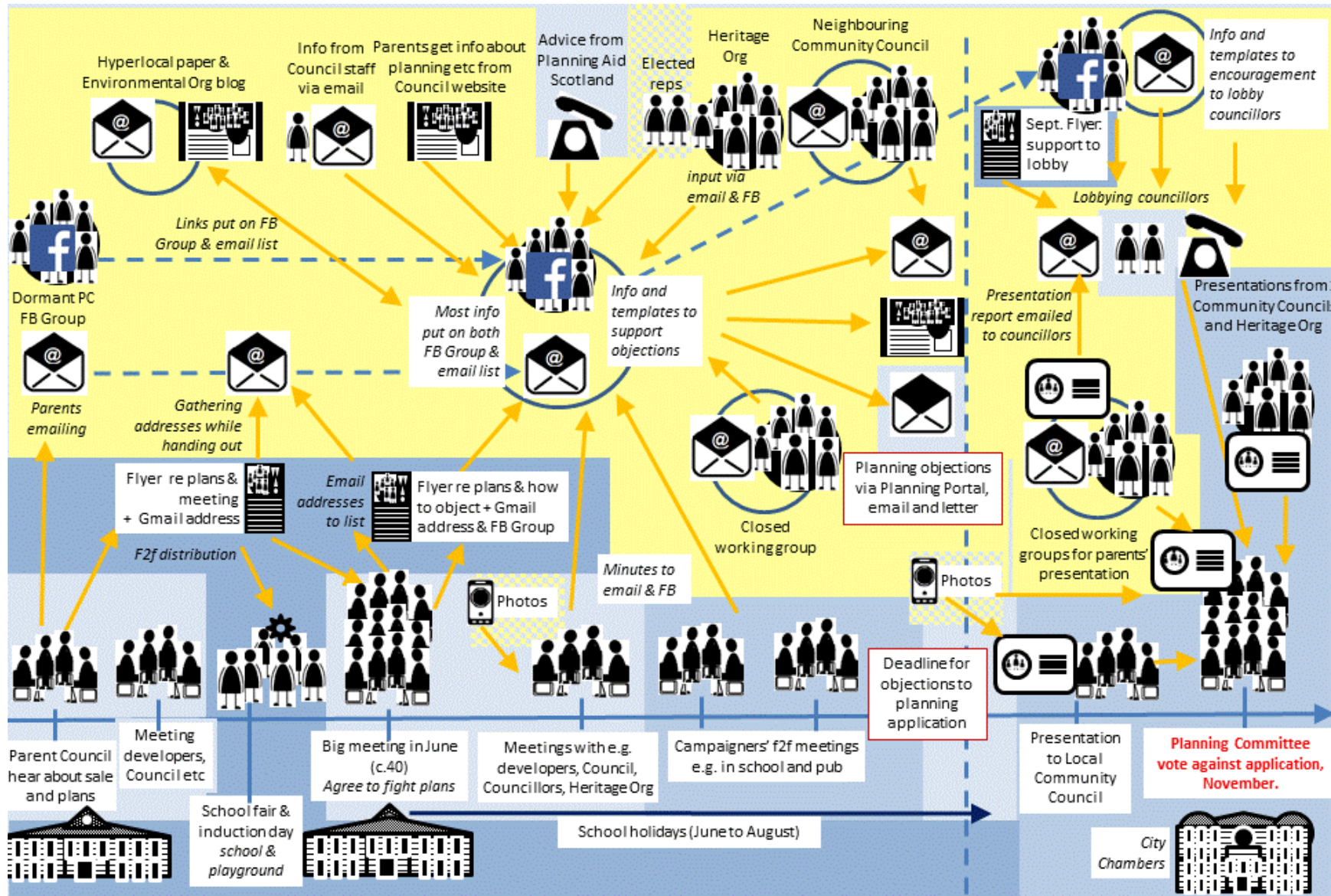




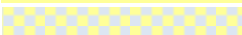


Figure 23: CPS Campaign – Timeline of Events

**Table 26: Key to timelines**

Offline: outside public space	
Offline: public space	
Offline	
Online	
Online and offline	


### **6.3 The campaign against the Old High School (North Street) development**

Figure 23 on p171 highlights the use of participation spaces along a campaign timeline.

#### **6.3.1 The Parent Council’s meeting to consult the parents**

The Primary School’s Parent Council found out about City Council’s plans to build new classrooms at several city schools via the Evening Paper. At the same time, the school’s headmaster noticed the Old High School being surveyed; he discovered it had been sold, and informed the Parent Council. The Parent Council decided to consult the other parents and carers at a meeting. They promoted this meeting with a paper flyer, which outlined the situations concerning overcrowding in the school, plans for new classrooms, and the sale and potential conversion of the Old High School. Dmitri created a Parent Council Gmail address and added it to this flyer, inviting people to contact the Parent Council. (See “Flyers” on p179.) The Parent Council were primarily communicating by email at this stage, following their established practice of using “Reply-all” to create an ad hoc email group. At this stage parents who were already involved were invited to related meetings, e.g. with the Developers and Council staff: “So, while I was planning to get the wider parent community interested and publicise everything and tell everybody everything, there were also things \*happening\* –meetings with the planners, meetings with the Council. All the developments were sort of snowballing, quite quickly for those few days” (Dmitri). About 40 people attended the Parent Council’s meeting in the school dining hall in June, including all local councillors and Mr MSP. They agreed to act against the planning application and investigate solutions to the overcrowding problem. Rachel took notes and circulated them via the email list and the Parent Council Facebook Group. The outcome of the meeting was conveyed to other parents via a flyer, which suggested actions and encouraged people to contact the Parent Council Gmail address or Facebook Group. The email list is summarised in Table 27 on p173 and Figure 24 on p174. The Facebook Group is summarised in Table 28 on p176 and Figure 25 on p175.

**Table 27: "Reply-All" email list**

"Reply- All" Email list		Key quotes
	The "Reply-All" email list grew out of the Parent Council email group and used "reply-all", rather than any sort of email list facility. People who emailed the Parent Council Gmail address or (more frequently) gave their email addresses to campaigners, were added to the "Cc" field of subsequent emails. At the height of the campaign there were about 70 people on this list: parents and carers, elected representatives, some teachers, maybe some planning staff.	<p>"You might be saying "Look, we've got two weeks to the [Planning Committee]. Please, please, please, if you've got time, these are the people you can contact. [...]." I had put up like a draft email people could use" (Rachel).</p> <p>"What we did definitely worked, because enough people cared about it to get the important people caring about it and to defeat that planning application. So, our email system worked. But it's a *mess*" (Dmitri).</p> <p>"Maybe a lot of the group are not wanting to have 10 emails a day about this. So, and as a result, you don't always get feedback emails. You know, the sort of polite "Oh that's a great idea" or "Let's think about it". Because, if you did that, there would be an unmanageable amount of emails" (Georgette).</p>
Public/ non-public	The emails are not public. Campaigners also use smaller, targeted email groups for more private communication (e.g. about their objection strategy).	
Control/ identity	PC Chair, Dmitri and Rachel act as admins by adding or removing people from the list, but the list has no overall leader or owner. Anyone can post (and even change the Cc list), but most people are reluctant to add to the potentially overwhelming volume of emails.	
Used for/ motivations	Sharing information; sharing model (template) objections and emails; planning strategy.	
Issues/ attributes	Because the emails come to people's inboxes they are experienced as push technology. The list is rather chaotic. People worry about the volume of emails and this discourages posting. People worry about posting inappropriate content to some recipients (especially given the mix of volunteers and professionals on the list).	
Resources	Effectively free. Takes time and attention to read and potentially respond to many emails, especially where threading becomes rather chaotic.	

The campaigners also contacted Hyperlocal paper to help publicise their situation: "It started off being the proximity question- that whole debate about the proximity, overlooking the playground. But it very quickly transformed into a story about insufficient space within the school. And this large, empty, council-owned property sitting there, being flogged off. So the 2 stories converged and you had a bit of a perfect storm thereafter" (Collingwood, Hyperlocal paper's editor). The campaigners split into two working groups to create manageable volumes of work. PC-Chair led a group negotiating the overcrowding problems, preferably without new classrooms being built on the playground. Rachel led the campaign to stop the sale and conversion of the North Street building. The email list and Facebook Group were shared by both groups.

# Email list

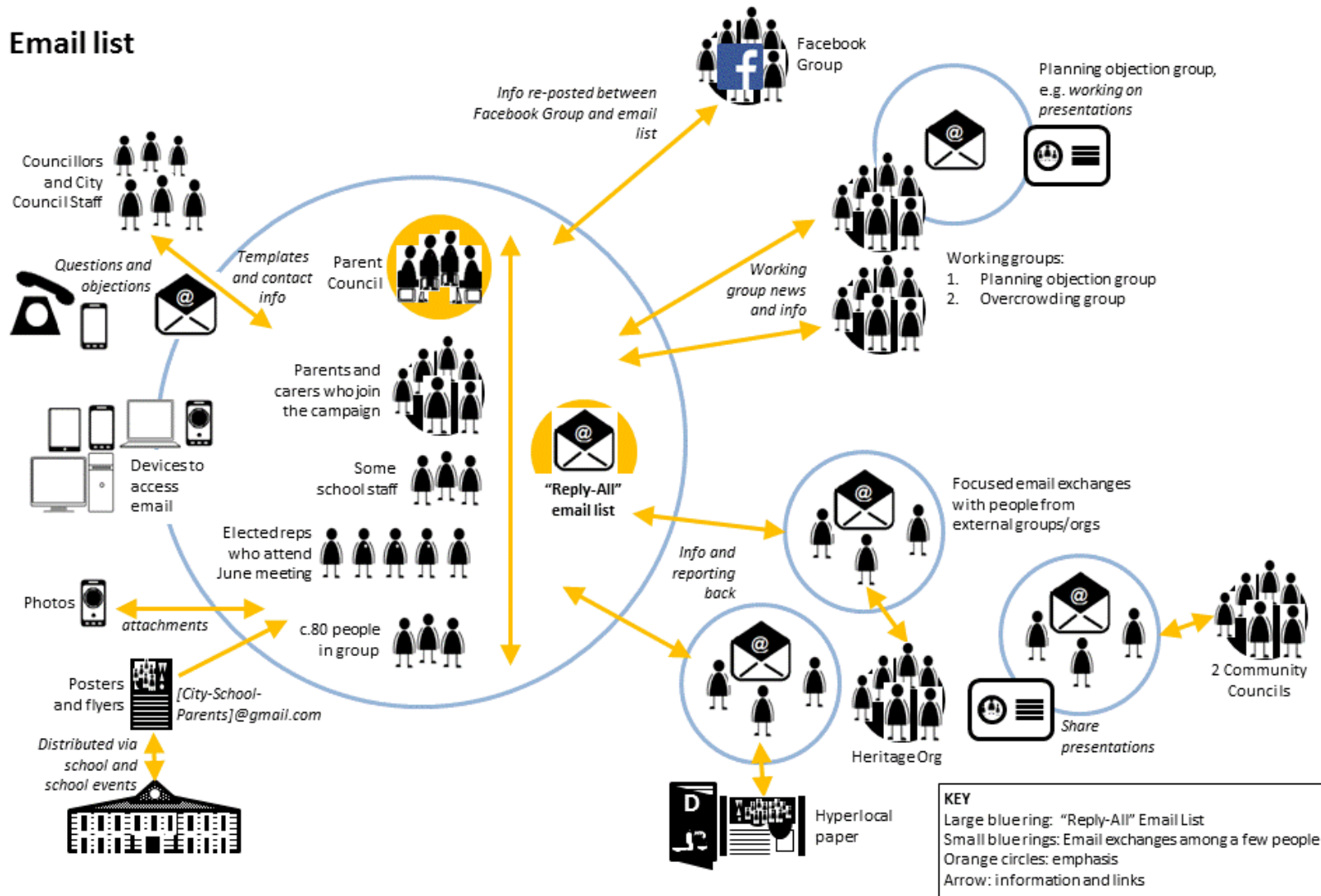


Figure 24: Reply-All Email List – Overview of Interactors

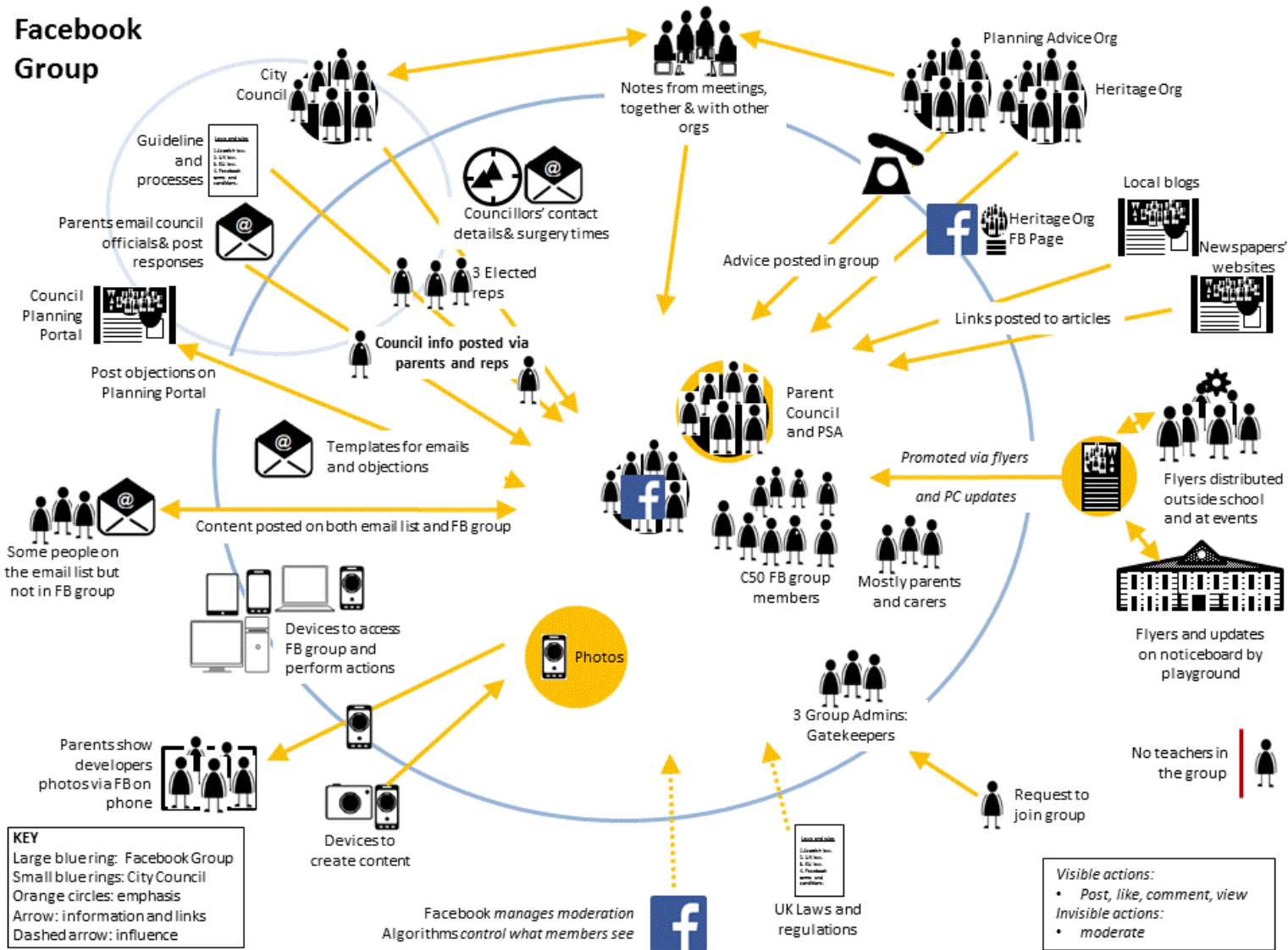


Figure 25: Parent Council Facebook Group – Overview of Interactors

**Table 28: Parent Council Facebook Group**

Parent Council Facebook Group		Key quotes
	The Parent Council Facebook Group existed, but was rather dormant until the campaign revived it and motivated people to join the group. There were about 80 people in the Group: parents and carers, elected representatives, but no school staff.	<p>“You get more comments, more feedback from Facebook than you do if you email the group, Um, with likes even, or just “Great news.” Or whatever. Perhaps it’s sad faces if things aren’t going well, you know” (Georgette).</p> <p>“It built into this group of about 80 people. Some whom have been really active, you know, used their expertise and their strong opinions and their insights to do some good. Or just practical” (Dmitri).</p> <p>“And on Facebook, you get the photograph, you get the link to the newspaper, a bit better than you’ve done in email” (Dmitri).</p>
Public/ non-public	The Group is closed (non-public).	
Control/ identity	Although the Group is owned by the Parent Council (established to get other parents involved), it really comes to life in the campaign.	
Used for/ motivations	Sharing information; sharing model (template) objections and emails; planning strategy; social and supportive comments.	
Issues/ attributes	Some people do not like Facebook and distrust its privacy level. The Group is particularly good for supporting short feedback or social comments, especially on photos. As there are no school staff in the Group, people feel more free to make critical comments about the Council.	
Resources	Effectively free. Time/inclination to visit/post/read/comment/like.	

The campaigners used the email list and Facebook Group in parallel to share information and plan their campaign. Campaigners were aware that not everyone used both spaces; Rachel posted to both and cross-posted between them. Both spaces were used to share photos. The Facebook Group supported discussions about the photos; the email list enabled Stuart to gather high resolution photos for the report they were creating for the Planning Committee. Rachel describes the reaction to a photo showing children in the playground right next to an Old High School window: “[Someone] had taken a photograph looking out over the rear playground. So, that was put up on Facebook. And everybody went “Oh my God! That really tells a story.” And [Mr MSP] is a member of that group, yeah and he said “You need to use that photograph. You absolutely need to use it, because it just...shows you.”” Figure 26 (p178) is an edited version of this.


### 6.3.2 Objecting to the planning application

In Scotland, *major* developments require a Pre-Application Consultation (PAC). However, although the planned conversion would create 73 new homes in a heavily populated area, City Council designed it as a *local* development, because there would be few alterations to



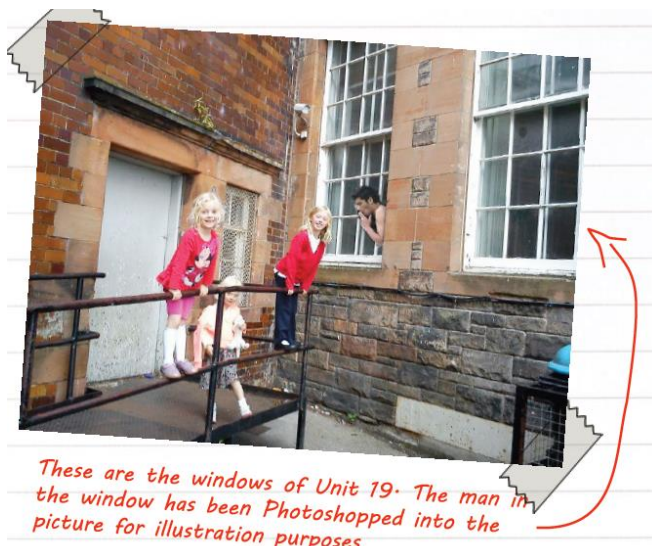
the exterior of the building.<sup>54</sup> “So, this is what classes as a Major Development: “and housing, construction of building, construction, erection for use as residential accommodation”. Now, it’s that word “construction” which did it. [...]They’re not actually building anything. [...] So therefore the Council classed it as Local [...] And [Mr MSP] was quite surprised about that, because he, when we met him, he said “Well, hang on a minute. I, you know, I did all this and I passed it”, and that was never the intent.”” (Stuart). This effectively moved the onus for consulting the local community away from the Developers. It was taken up by the Parent Council, and, to some extent, by the two community councils (see “Community Councils”, p181).

**Table 29: City Planning Portal**

City Planning Portal		Key quotes
	City Council’s Planning Portal is part of a national ePlanning initiative. It is used by planning staff, campaigners, developers, and organisations concerned with planning (e.g. Community Councils, Heritage org, and Hyperlocal paper).	<p>“I went through the application documents; I went through the policies to see where they didn’t meet the policies. Several of us in the group were doing that” (Georgette).</p> <p>“a process that was very tailored towards educated, confident, literate people, and was excluding lots of parents at [City Primary] for lots of different reasons. I felt quite strongly that that was very wrong, in terms of a mechanism of lodging your objections [...] I felt there were lots of barriers there for the perhaps people who didn’t feel very confident, you know, to write letters. Perhaps people whose first language is not English. I knew that there were lots of people being excluded from that system” (Rachel).</p>
Public/ non-public	The portal is mostly public, though it also includes information that is only available to councillors and Council staff. Objections are published publicly <i>after</i> the planning decision. People need to register to comment on applications.	
Control/ identity	The portal is controlled by the City Council, within the wider ePlanning project. The Council define the Material objections.	
Used for/ motivations	Information about planning processes, including Council’s policies; individual applications; objecting to applications. Campaigners needed to find discrepancies between policies and the Developers’ application.	
Issues/ attributes	As the portal is online, it could be used by campaigners who were on holiday (the objection period was in the school holidays). An imbalance of power between professional users (such as developers and planning staff) and people monitoring/ objecting to planning in their own time. When objections are published online, people’s postal addresses are included.	
Resources	Paid for by the Council and Scottish Government. Campaigners use in their own time. Developers and Council staff use in paid time.	

<sup>54</sup> City Council also have a financial interest, as planning permission to convert the building is necessary for them to sell it to the Developers.

The campaigners educated themselves about the planning process. Objections needed to meet the Council's criteria for validity: they needed to be *material*. The material objections framework is described in the STIN Study of the City Planning Portal in Appendix 33. The Council's material objections criteria did not match the parents' concerns. Objections also had to be different, rather than one text submitted by various people: "If you just do a standard letter, and just change your name and sign it, sort of thing, the Council will see through that, and they will just treat that as one letter. So we had to be careful to make sure that all the objections were \*different\*. And secondly, we had to make sure that the objections were on material grounds. So, for example, the fact that the school is bursting at the seams and the Council's selling off this building is not material. It's irrelevant as far as the planning is concerned. But the things which \*are\* relevant are things like the lack of amenity in the proposed apartments, and interfering with neighbouring uses, all this sort of thing" (Stuart). This thesis suggests that the Council's designation of objections as material or irrelevant is a *dispositif*, using Foucault's concept of material and social structures or processes which maintain the exercise of power (Foucault 1991). Further, the requirements of the objection process could exclude people who lacked good English and writing skills.



**Figure 26: Photo of Ground Floor Window with Smoker Added**

The campaigners gathered information about effective objections from external bodies and websites, and shared this via their email list and Facebook Group. However, they also took photos which reflected their own objections: photos which emphasised the proximity of the proposed studio flats (and their occupants) to the Primary School playground and children.

One of these photos (Figure 26 on p178) shows the window of one of the studio flats, right next to three young girls playing in the playground. A shirtless man has been “Photoshopped” in, smoking out of the window. This photo became a powerful focus of the campaign. In the workshop, Rachel and Dmitri revealed that the use of this photo had been extensively discussed on the Facebook Group and email list: “Well, there was a concern issue for the person whose children were in the photograph. [...] But there was a wider debate about –is, was it flippant [...]? Did it set the right tone? [...] And there was a lot of to-ing and fro-ing” (Rachel). See Figure 27.



Figure 27: Annotation of Reply-All Email List Interactors Diagram re concern about children in photos


### 6.3.3 Flyers

The campaigners used flyers, face-to-face conversations, and text messages to prompt people to get involved. Flyers (listed in Appendix 34) enabled the Parent Council to describe the situation to other parents and carers and provide ways to become involved. Flyers helped to build an online community of campaigners, by encouraging people to join the email list and Facebook Group, providing a mobile link between the offline and online worlds. Flyers kept people up to date and supported actions, e.g. informing people about the June meeting and contacting councillors. Flyers potentially enabled people without Internet access to get involved, by phoning their councillor or the Planning Department, or attending a councillor’s surgery. Before the school holidays, campaigners distributed flyers in the playground as people came to collect their children or to attend events like the School Fair (See Table 30: The Playground, p180). In the workshop, Dmitri and Rachel described how the children had discussed the campaign and made posters at their After School Club and the Club had helped to distribute flyers. The campaigners had personal contacts in Evening paper and the BBC, and Rachel had appeared on TV.

In advance of the objection period, campaigners emailed councillors and Council staff to

generate heat around the issue, as well as contacting Hyperlocal Paper and Heritage Org. The 21-day objection period was within school holidays, increasing reliance on email and Facebook to support the campaign. After the objection period closed, the campaigners heard that the Planning Committee would hold a hearing in the following months. The campaigners then encouraged people to lobby the councillors on the Committee. They used flyers to provide an update, reasons for objecting, and contact details for relevant councillors and Council staff: one flyer aimed at parents; another, for the school's neighbours, was posted through letterboxes. At this stage, the Council also organised a site visit. It was on this site visit that Joseph, chair of Local Community Council, became aware that the Old High School sat within the curtilage of the Primary School, and that the Playground was open to the community in the evenings. "I don't think we'd fully appreciated, until we visited the site, and heard from the residents, saw photographs, the extent to which it wasn't just that the development was next to a school, it was essentially within it" (Joseph).


**Table 30: The Playground**

The School Playground		Key quotes
	The playground flows round both sides of the Primary School and round two sides of the Old High School. It is frequented by children, parents, and teachers. It is visited in relation to the planning application by the Developers and people on site visits.	<p>““Have this bit of paper. This is happening to the school you’re coming to, and you will be interested.” And, we had a phenomenal response. [...] We now have even a recipients list of about 80, out of a school with 300 children” (Dmitri).</p> <p>“[The Developers] weren’t very accepting that [the proximity of the windows to the playground] was an issue. So, we said “There’s a photo here that shows it is an issue.” So –that was on my phone. It was a useful point in the meeting. Because they did, at least, concede at that point, that there might be an issue with *some* of the flats” (Georgette).</p>
Public/ non-public	People can enter the Playground until 9 in the evening, but in practice it is only accessed by people involved with the school.	
Control/ identity	The Playground’s identity is bound up with the school and children.	
Used for/ motivations	Children: school and playing. Campaign: networking and flyering. The Parent Council also have a noticeboard at the edge, facing West Street.	
Issues/ attributes	Proximity to the Old High School. The school is closed during the objection period.	
Resources	Managed by the Council; Parent Council/PSA fundraise for equipment.	

### 6.3.4 Community Councils

Local Community Council (LCCC) discussed the application with the Developers, expecting the planning application to require a Pre-Application Consultation (PAC), as a major development. However, City Council controversially classed the development as local, so no PAC was required and the process moved quickly. LCC’s planning convener felt that the parents’ worries were not material objections and that the development provided a good future for the building; LCC do not meet in July. They submitted a neutral comment. This was covered in Hyperlocal Paper and campaigners were disappointed. Rachel had emailed their chair, Joseph, but not received a reply. After the summer, LCC membership changed, due to (uncontested) elections; Joseph, their chair, also changed his position on the application due to the site visit. When Rachel succeeded in contacting Joseph, Rachel and Stuart were invited to present to LCC, three days before the Planning Committee meeting. LCC then emailed a revised objection to the Head of Planning and spoke against the application at the Planning Committee meeting.

**Table 31: Hyperlocal Paper**

Hyperlocal Paper (HLP)		Key quotes
	<p>A monthly paper newsheet and a website, with a new article each day, plus a Facebook Page and Twitter account.</p> <p>HLP include Collingwood (editor), Ivan (secretary and technical), and the researcher (deliveries). Read by local people (and a wider audience). Elected representatives and Council staff read and appear in articles.</p>	<p>“The parents were very anxious that [Hyperlocal paper] should get involved, because they didn’t think they had enough time to get as many parents organised and informed as they needed, without getting some kind of local publicity. So the [Hyperlocal paper] was ideal for them to do that [...] Because I’ve been covering stories for the school for years now” (Collingwood).</p> <p>“So, you know, we get [Hyperlocal paper], we see what they, um, how much *feeling* there is in the area, how other people – it’s always a problem with the Community Council, you know. Are you representing the views of the people? Or are you just talking from your own sort of prejudice, your own experience” (Desmond, NCC).</p>
Public/ non-public	Public website and social media; local access to news sheet.	
Control/ identity	Controlled by the Hyperlocal team. The campaigners/ Parent Council contact the paper and Collingwood lets them control news flow about their campaign; HLP has a long association with the school.	
Used for/ motivations	Sharing news and opinions on news. Effectively promotes the campaign. Publish sympathetic articles from other sources.	
Issues/ attributes	Newsheet available offline. Comments received via social media are posted under articles (useful local perspective). One article is based on an email exchange about the School, between Ivan and a Council service director	
Resources	Free to readers. HLP funds itself, primarily through advertising (because all staff are volunteers).	

The Old High School sits towards the border of LCC's area and many of the school's children live in Neighbouring Community Council's area. NCC discussed the planning application at one of their monthly meetings, when Councillor Bruce reported on the situation<sup>55</sup>. Their planning committee had already identified the issue from the planning bulletin and been lobbied by concerned neighbours. Their planning convener, Anna, submitted an objection on behalf of NCC and emailed this to Hyperlocal Paper's editor, Collingwood, who published it on the Hyperlocal Paper's website within an article in which people were critical of LCC's neutral response. Desmond also submitted an objection on behalf of NCC and presented this objection to the Planning Committee.

### **6.3.5 Meetings and face-to-face gatherings**

The campaign was local, so people were able to meet face-to-face, if their schedule allowed it. The Parent Council met in the school. Parents and carers met informally in the playground, during term-time, including distributing flyers. The campaigners sometimes met in the pub opposite the school: "Those meetings really turned up some personalities and some help and a few people volunteering to do some work. They were good, but they were quite ad hoc and informal and just as and when" (Dmitri). In the workshop, Stuart emphasised the number of face-to-face meetings: "There were probably more face-to-face meetings than I think I've ever had" (Stuart).

### **6.3.6 The Planning Committee meeting**


Rachel attended a Planning Committee meeting in advance of the hearing: "I'd been to observe the [Planning Committee], which was somebody else's idea, but it was a brilliant idea, because you actually see how the [Planning Committee] functions. And just how it unfolds and what kind of questions are asked, and what they're focusing on" (Rachel). This gave the campaigners a vital insight into the hearing process. Stuart and Rachel created an engaging, illustrated objection report, in PowerPoint (described in the STIN study of the City Chambers, in Appendix 33) and emailed it, as a pdf, to councillors on the Planning Committee. "They tend to be fairly dull documents that you get for planning applications and that sort of thing. So I was quite conscious to make this one \*interesting\*; mainly because it concerns the school. So I sort of did it in this jotter-type format, and everything – used a handwriting-type font [...] and did the Sellotape on the pictures, and all that sort of

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<sup>55</sup> The researcher was present at this meeting.

stuff” (Stuart).<sup>56</sup> Stuart converted this report into the slides for their presentation to the Committee. The Planning Committee hearing was held in the City Chambers (Table 32 on p183) on a Thursday morning. Six presentations objected to the application: Local Community Council’s new planning convener; Desmond, on behalf of Neighbouring Community Council; Rachel and Stuart, on behalf of CPS Parents; Mr MSP; Councillor Bruce; Daisy, director of Heritage Org. The Developers spoke in support of the application.

**Table 32: City Chambers Room**

City Chambers Room		Key quotes
	The Planning Committee met in one of the larger City Chambers rooms. At one end of the room sat the Planning Committee (elected representatives) plus Planning Staff. Those giving presentations sat in front of the public gallery (Community Councillors, parents, elected representatives, Heritage Org and the Developers) though there were too few chairs for them. The public gallery was full (40+ people), including campaigners, Collingwood, and the researcher.	“[Stuart], for example, was working on this document that won the day. “Who can meet me? [...] let’s make it Thursday at 8 o’clock. We’ll meet in the pub and look at it.” [...] New people came out of the woodwork, who’d not been able to go to the Parent Council, who’d not said anything, but had a really strong opinion, because they’d worked in a Planning Department of a legal office. And, you know, people had really helpful insights” (Dmitri).
Public/ non-public	Controlled access to the room for some meetings. The meeting was not webcast, as the room was not enabled for this. Hyperlocal Paper, Mr MSP and Daisy tweeted the result. HL Paper published an account of the meeting that evening. A challenge to get to the meeting for people working office hours and/or with young children.	“I couldn’t go, because of work commitments, which was quite *disappointing*; and I knew that, sort of come lunch time, that it must have a result by then, but I sort of thought “Oh well, they’ll be busy talking”, so I actually checked Twitter feed for [Hyperlocal Paper] and that’s how I saw the vote going our way” (Georgette).
Control/ identity	City Council manage the building and the room. The Planning department manage the meeting; however, there was little support (e.g. agendas in advance) for the public to attend and understand the proceedings.	
Used for/ motivations	To make decisions about planning applications.	
Issues/ attributes	Screens give prominence to photos and diagrams.	
Resources	Council pay for upkeep. Council staff, elected representatives, and Developers are paid to attend. Community Councillors and parents are volunteers.	

Although the building’s proximity to the Primary School playground and children was not a material consideration, its emotional import was made explicit by the Photoshopped image in the Parents’ presentation (Figure 26 on p178). Heritage Org’s director, Daisy, parleyed this into a material consideration by asking where residents of the new flats would smoke,

<sup>56</sup> There is a sticky-tape graphic over the corners of each of the images.

given the dearth of greenspace in the plans. The Planning Committee voted 7/6 against the application, though the application was later granted after a DPEA appeal.

The campaign increased the reach of the Parent Council’s communication forums, especially the Facebook Group and email list. Georgette became involved in Parent Forum activities: “I’ve actually been drawn into more, the other activities of the school, as a result – like manning the stand.” Rachel joined the Parent Council. The campaigners continued their work throughout the DPEA appeal, and afterwards.

#### 6.4 Input from workshops

Two workshops were held with CPS interviewees, a year after the Planning Committee meeting. Participants’ discussions, centred on the “Overview of Interactors” diagrams for the Email List and Facebook Group, indicated that the picture of the campaigners’ communications contained in these STIN diagrams was aligned with their recollections, though additional information also came up. Where appropriate, insights from the workshops are presented within the STIN models in Appendix 33 and the narrative above. Dmitri and Rachel also described how two people had tried to set up their own, separate campaigns: one through contacting the media, the other through contacts in the Council (Figure 28 on p184).

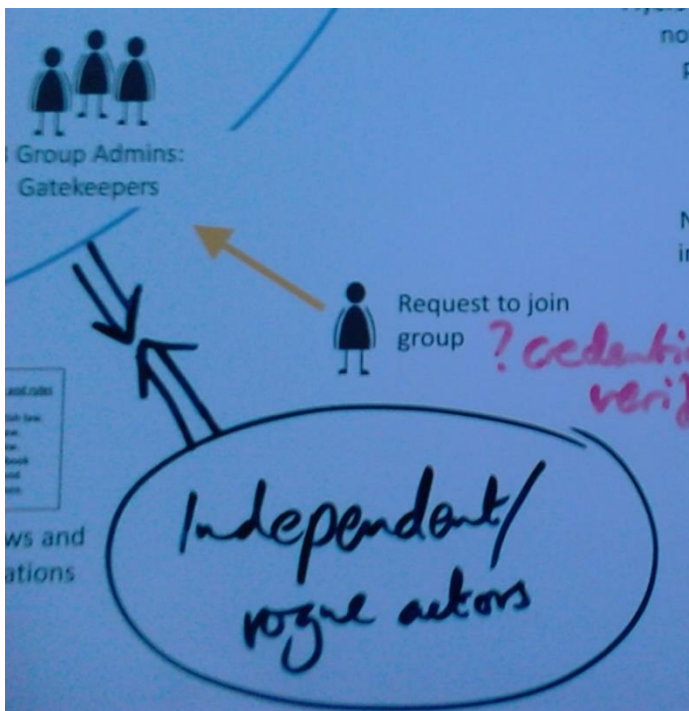


Figure 28: Annotation re independent/ rogue actors



## 6.5 The CPS campaigners and their participation spaces

The STIN studies and campaign outline create a picture of the City Primary School parents' campaign in which digital tools are essential to their collaboration and success. Underlying the CPS campaign is a power imbalance between the campaigners and the professionals supporting the planning application: the Developers and the Planning Department. The latter groups are experienced professionals and paid for their time. The campaigners organised their campaign, learned the planning system and objected, in their own time. The Planning Department's decision to designate the application as *Local*, rather than *Major* had effectively transferred responsibility for consulting the local community, from the Developers to the Parent Council.

The campaigners established a collaboration of over 70 people and several organisations, mostly via online tools, and persuaded the Planning Committee to reject the application. The campaigners fought the application by extending the communication forums they already had: the Parent Council's email list and Facebook Group, local media, and face-to-face interactions through school life. Importantly, these were all free. The campaigners used flyers to join these together. By collaborating with other organisations and using skills from their professional lives, they built an understanding of the planning system. Although their own concerns were not officially admissible, they created a convincing set of objections to the planning application. Photos were essential to the campaign: photos which illustrated proximity and included children had an emotional impact which transcended planning categories.

The campaigners preferred non-public online spaces for organising: the email list and Facebook Group supported them to collaborate and share the detailed knowledge they had established, in order to support planning objections and lobbying. The email list and Facebook Group were used in parallel, but neither was superfluous; the STIN studies support extensive comparisons between these two communication methods. Small email groups provided privacy for strategic communications. Flyers provided links between offline situations and the two collaborative online spaces. Rather than creating their own public online space, such as a Twitter account or Facebook Page, the campaigners used their contacts in local media, including Evening Paper and Hyperlocal Paper.

## 6.6 STIN study conclusions across the cases

The diverse participation spaces of the case study groups have been modelled as Socio-Technical Interaction Networks, described in text and diagrams. The STIN framework ensures that the models contain the relevant actors and motivations to be useful, empirical studies, so that the features of each space are robustly described: socially, technically and historically. This enables analysis across quite different spaces and case-study groups and integration with other sociotechnical research. The STIN heuristics prompt consideration of resources, exclusions, and wider networks, as well as the heterogeneous interactors within each space, and ensure each model is understood within its trajectory. The models are considered reasonable representations of the groups' work, based on discussions with participants, centred on the interactor diagrams, during workshops.

These three chapters have presented the participation spaces, based on the STIN models, within narratives of events. These narratives describe the spaces in use and emphasise the relationships between the characteristics and activities of the participants and the characteristics of the participation spaces. It is evident, from the narratives and especially the timeline diagrams, that the use of participation spaces is integrated. This is also illustrated in the "Overview of Interactors" diagrams which map actors and their relationships for each space (e.g. Figure 25 on p175). These diagrams show that, when each participation space is modelled as a STIN, each group's *other* participation spaces are interactors and constitutive elements of the STIN. For example, people are reminded to attend Ward Anti-Cut's Community Centre meetings when they read Jean's email; people read articles on HCAT's Hill blog when Monty posts a link on the Hill Community Facebook Group. So, *each group can also be described as a Socio-Technical Interaction Network*: participants and participation spaces are interactors constituting the group STIN.

It is also evident that certain characteristics of the use of participation spaces are common across the three case studies, especially where these are aligned to characteristics which the groups share, such as being established locally and being mostly volunteers. Taken together, the participation space models reveal the groups' characteristics and describe their participation work. The participants work together to improve their communities: organising, involving people, and trying to influence events. They use participation spaces, including digital and non-digital technologies, to further these aims. Spaces are linked

together, technically and socially, used in parallel, and shared with other groups and wider communities.

The participants are almost all volunteers, motivated by the shared desire to improve their local situation and help other people. They favour participation spaces that do not require group budgets. Participants bring skills and expertise to their groups; they also need to self-educate about issues, processes, and effectively using technology. This leaves little time available to adopt and promote new technologies: social media use emerges gradually, without coercion. Leadership is light and consensual: facilitating and leading by example, rather than telling people what to do. Groups work in overlapping networks, including related organisations and personal networks. The groups are generally trying to influence more powerful organisations on an uneven playing field. These characteristics, as well as creating challenges, bring group members together, into supportive communities.

The STIN models reveal how these features combine with the characteristics of the participation spaces, and the pattern of events, to guide participants' use of technologies. They contain scenarios pertinent to the processes of contemporary democracy, for example concerning privacy and the day-to-day use of social media. The next chapter, "Findings and Analysis" discusses features from these models of participation spaces that contribute to the research fields discussed in the literature review and further our understanding of eParticipation.

## 7 Findings and analysis

### 7.1 Overview

While the STIN models capture the case-study groups' use of participation spaces, the models also describe the *groups* within the case-study period: their characteristics, goals, activities, and achievements. The STIN metaphor makes it clear that the groups are sociotechnical assemblages, and that the participation spaces, along with group members, their goals and activities, constitute the groups. In this way, the STIN models provide a detailed structured picture of how the participation spaces support democracy and why participants choose to use each different space, answering the research questions:

- What spaces are considered, used or created for participation, by people trying to improve their local communities?
- What characteristics of these spaces influence their use as participation spaces?
- What characteristics of people and groups influence their choices and uses of participation spaces?

This chapter contextualises and analyses the answers to these questions according to the research themes discussed in the literature review<sup>57</sup>. The chapter describes how the findings contribute to the fields of social informatics and eParticipation, and contemporary social shaping models, such as mediation. It begins by defining the contributions. **The first contribution is the concept of a participation space as a sociotechnical assemblage where people participate in democracy.** The participation space concept provides a way to study the diverse online and offline contexts of grassroots democracy, in parallel.

This research involved modelling each group's participation spaces using a STIN methodology and analysing the models together. Through this approach, especially as visualised in the STIN diagrams, it becomes evident that each case-study group is a sociotechnical assemblage and could also be described as a STIN, with the participation spaces, as actors or nodes, nested within this *group STIN*. Certain participation spaces, including online spaces, may be peripheral to the group's activities, but some are essential. **The second contribution is that Internet technologies, especially email, are integral to the case-study groups' participation, illustrating the crucial mutual shaping relationship**

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<sup>57</sup> Page numbers refer back to the literature review, unless they are attached to an in-text citation.

**between technology and democracy.** Sociotechnical research explores the relationship between social and technical factors, especially with regard to influence and outcomes<sup>58</sup>.

The body of STIN studies created in this research show the interactions between social and technical factors within and around each participation space. The characteristics of the participation spaces that influence their use – and that influence events – are social and technical, entwined.

Defining the unit of analysis as a participation space affects the identification and description of the (sociotechnical) characteristics that influence its use. **The third contribution is to identify these as the space's boundaries, inhabitants, access, and cost.**

For example, the participation space concept helps to understand the groups' technology choices in terms of Cornwall's ideas about invited and created spaces, especially in terms of ownership and power (2000). This is also related to the spaces' identity, in terms of formal democracy, the public sphere, and social spaces, or third places (p45 and p48). However, the participation space designation has been less appropriate for some spaces, or media, than others. Email and email lists are at the boundaries of the participation space conception. Following Flyvbjerg, this atypical or extreme case has helped to build a stronger understanding of the groups' use of participation spaces (2006, p229). However, as email underpins so much of the each group's work, it would be better to describe it in terms of participation *infrastructure*. Paper flyers could also usefully be designated as elements of infrastructure.

**The fourth contribution is the integrated use of participation spaces, aligned to the mediation theories of polymedia and hybrid media.** Social informatics has a tradition of presenting ideas and results as convincing alternatives to a *standard model* (Horton, Davenport and Wood-Harper, 2005; Kling, McKim and King, 2003; Meyer, 2006; Meyer and Kling, 2002). Standard models are hard to establish in an area studied with such diversity as eParticipation. Still, a simple standard model is outlined below, in which activist groups are expected to have a *public* online presence: a website or Facebook Page that is their dominant web presence and solely associated with them. This model is contradicted by the STIN studies, where prominent online spaces are non-public, shared with other groups, or

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<sup>58</sup> For example, see the discussion of social informatics models from pages 54 and 61, and social shaping models, from p58, above.

both. Madianou and Miller's polymedia model (p70) and Chadwick's hybrid media (p49) are presented as ways to explore this integration. This chapter considers what understanding the groups' use of participation spaces as polymedia or hybrid media brings to social informatics and eParticipation research.

In the Participation Space Studies, most communication, including deliberation, takes place in non-public contexts, such as closed Facebook groups, email, and face-to-face meetings.

**The fifth contribution concerns the groups' work: mostly invisible and informational work.**

Like an iceberg, with publicly visible events and campaigns above the waterline, the majority of participants' work was out of public view, on and offline. This non-public participation included extensive learning and preparation, supporting a smaller amount of visible public action.

**The sixth contribution is the use of images as affective participation.** Digital photography became an increasingly evident and important feature of participation spaces throughout the consecutively conducted case studies. For example, social media posts increasingly centred on images. Digital images provided practical and influential vehicles for emotion and information. In terms of influence and engagement, these were sometimes effective beyond words. In particular, image-centric affective modes (Dahlgren, 2012; Papacharissi, 2014) were increasingly at the core of social media participation spaces. While many participants were sceptical about using social media, the case studies illustrate Facebook, in particular, supporting collaboration by people from different social worlds. In these case studies, Facebook appears to be a boundary object (p74). The use of Twitter is emergent in the case studies, but potentially aligned to this conception. **The seventh contribution is to describe social media as boundary objects.**

**The final contribution is this implementation of the STIN approach, modelling families of STINs, consisting of the participation spaces used by each case-study group.** Diagrams and timelines supported this, through modelling, analysis, and collaboration phases. This is discussed in the next chapter: "Reviewing the methodological approach" (p216). First, this chapter presents the contributions outlined above within thematic sections, focusing on how the findings contribute to eParticipation; the characteristics of participation spaces that influence their use; information infrastructures and boundary objects; and the integrated

use of the participation spaces. The first section highlights the findings which contribute to the central discourses of eParticipation described in the literature review (from p39), including the potential problem of exclusion and the nature of deliberation in participation spaces. It begins with the relationships between the outcomes of the groups' activities and their use of ICT. Here, the participation spaces illustrate the social shaping of technology.

## **7.2 Findings: eParticipation**

### **7.2.1 Each group influenced events**

This section situates the groups' use of participation spaces in terms of their influence on people in power and external events. Each of the case-study groups achieved some of their aims and influenced events during the case-study period: their participation was effective. The anti-eviction policy requested in Ward Anti-Cuts' bedroom tax petition became City Council's policy, though their campaigning activities were influential, rather than instrumental. Their activities can be seen within an agglomeration of campaigns, locally and nationally, which led to a succession of Scottish councils, and the Scottish Government, acting to protect people from eviction. Hill Community Action Trust did not succeed in persuading the DPEA to grant planning permission for Westhill Moor wind-farm. However, they did build a new resource centre in Hill and supported the community upgrade of local paths. The City Primary School campaign is unique in the three case studies in having and achieving one central goal within the case-study period: to prevent planning permission being granted to develop the Old High School into studio flats. Their main objections to the development were officially inadmissible, and their opponents were professionals, while the campaigners were working outside their own professions, in their own time. They achieved their immediate goal through a large collaboration.

The three groups' achievements also need to be considered in terms of *affect*: in terms of the symbolic and emotional impact (p45, above). Perhaps Ward AC's petition was not the sole cause of City Council's policy to avoid evictions, but the petition and related anti-bedroom tax campaign provided a destination for people's worry and anger, in a format the Council could not ignore. Similarly, while the Hill Facebook Group helped HCAT to promote events, its role in absorbing HCAT into the Hill Community was more important. The CPS parents smuggled their narrative about the unsuitable proximity of the proposed studio flats to the school playground into the Planning Committee's inboxes and then into their

meeting. They designed their report and presentation to engage, using photos to convey local people's worries which did not match the planner's approved considerations. Although the Planning Committee's decision was later overturned by the DPEA, the parents' initial victory symbolised their care for their children, as well as drawing wider attention to the Council's actions. The importance of affect is returned to on p195.

### **7.2.2 ICTs supported the groups to influence events**

Millard et al's study of 255 eParticipation initiatives from across the EU (2009) finds "a surge of grass-root, often single issue engagement in policy making, people generally are more aware of public policy issues, and there are more outlets and channels enabling participation. Much of this is supported, and in fact driven forward, by new ICT tools" (2009, p4). These statements ascribe a prominent role to ICTs, while reflecting the entwined technical and social influences on this engagement. It would be naïve to interpret this as assigning agency to ICTs, but it may be understood that the use of ICTs was essential in many people's participation. This reflects the STIN models, where most participation is directly or indirectly supported by ICTs, especially by email and social media, but also blogs, websites, and flyers. It is difficult to imagine the three case-study groups organising and influencing events without using email; or involving more people without using social media and/or paper posters or flyers. This thesis proposes that the integrated use of ICTs, conceived of as participation spaces, *constitute* the case-study groups.

### **7.2.3 Online participation spaces constitute the groups**

Each case-study group effectively consisted of its participants combined with the participation spaces: each group may be thought of as a sociotechnical assemblage or STIN, in which participants and spaces are actors. Some participation spaces were more fundamental to each group's work than others. For each group, at least one online participation space was essential to that group: the group would be fundamentally different and potentially unfeasible without it.

Each model collated data in response to the STIN heuristics, even if the data was rather prosaic. This is one of the framework's strengths: if mundane actors or motivations were omitted, the STIN models would be biased and less useful descriptions of the participation spaces. Star captures this as a necessity and challenge for those studying infrastructures: "As well as the important studies of body snatching, identity tourism, and transglobal



knowledge networks, let us also attend ethnographically to the plugs, settings, sizes, and other profoundly mundane aspects of cyberspace, in some of the same ways we might parse a telephone book” (Star, 1999, p379). The STIN models demonstrate that email and, in case studies 2 and 3, the Facebook Groups were essential because they supported asynchronous and distributed communication, including sharing documents and photos. This may seem obvious, but it was vital to volunteer participants who had limited opportunities to meet face-to-face and were working around their lives’ other commitments. Bowker and Star describe how important characteristics can disappear into infrastructure and become taken for granted (1999). Castells describes how structure and organisation in the Network Society still respond to space and time, but are transformed by ICT networks’ support for distributed interaction (1997).

Ward Anti-Cuts’ existence centres on their twice-monthly meetings. Email is integral to these meetings. A different group of people attend each meeting: more or less regular attendees and sometimes new people. The email list is an essential component of the meetings because it reminds people to turn up. It may also include the meeting’s agenda, if the group are actively organising something, like a public meeting or petition. This is especially important for people who attend infrequently. When the list broke down, only six people came to the meeting. Email is essential to HCAT. It supports the directors to work together with few face-to-face meetings: necessary for these busy volunteers. However, while the directors steer HCAT, it is the Hill Community whose involvement is constitutive, and it is the Hill Facebook Group that supports this involvement on a day-to-day basis. The Facebook Group involved people to build paths in the woods and facilitated fundraising towards the new resource centre. The presence of their local councillor in the group enabled HCAT to move back into their central office, until the resource centre was ready. The CPS Parent Council Facebook Group and email list supported a collaboration of c.70 people. These two participation spaces enabled people to be involved in the campaign, both in terms of contacting City Council and contributing ideas and information to the campaign. The parents’ objection report and presentation benefited from this diverse input and convinced the councillors on the Planning Committee to vote against the application. The Facebook Group and email list not only enabled the parents to work on the campaign when and where they could, but also supported them to exchange complex information, in text

and photos. Digital photography was a key technology, as photos brought the parents' real concerns into the heart of the Planning Committee.

The STIN models contribute to the pantheon of social-shaping studies. Technologies enable the groups' work, facilitating more people to take part in more activities. This is a mutual shaping: while platforms may be provided by third parties, the groups create the participation spaces by adding people and content, and adapting them to their purpose. The sociotechnical characteristics which influenced the groups' use of these participation spaces are considered below.

#### **7.2.4 Diversity and exclusion**

In the above examples, the online spaces (email and Facebook Groups) help to involve people in the groups: they are entry points and support involvement in practice. The STIN studies do not contain much evidence about *who* became involved this way, and a meaningful assessment of the diversity of each group is beyond the scope of this research. However, the STIN studies record exclusions and it is important to keep surfacing these; the more important online technologies become in participating in democracy, the more unacceptable it becomes for population groups to have poor Internet access.

People who do not use the Internet are excluded from online participation spaces. In 2013, the percentage of adults, in Scotland, using the Internet for personal use was 78%; 74% had broadband at home (Scottish Household Survey, 2014). People in the most deprived areas were less likely to have access (64%). Older people were least likely: only 25% of those aged 75 and over reported using the Internet in 2013. In the case studies, older people who did not use the Internet were at risk of exclusion, as busy participants tended to rely on online communication between meetings. The Hill Facebook Group provided a communication space across diverse social groups (explored further from p206). In the workshop, Monty described how Hill's large population of older people are now coming into contact with HCAT via the new resource centre, rather than through the Facebook Group. Nelson, a retired Ward AC member, did not use the Internet in the case-study period, as he had doubts about his writing ability. This may have caused him to miss a lobby that was

advertised via Facebook<sup>59</sup>. CPS campaigner Rachel was concerned that City Council's planning processes excluded people without a high level of literacy, in English. This was of particular concern to a campaign centred on a multicultural school.

While there is little evidence in the STIN models of people from marginalised groups becoming involved through online participation spaces, neither can the obverse be claimed. Each case-study group had a wide peripheral network and this research methodology did not reach the edges in enough detail to create a meaningful picture of who was there or the extent of their involvement.

### **7.2.5 Deliberation, images and affect**

Early eParticipation research looked for deliberation, especially following Habermasian ideals (Dahlberg, 2001; Habermas, 1964; 1989), mostly in vain (Loader and Mercea, 2012; Wright, 2012). In the case studies, deliberation was restricted to *non-public* online participation spaces, because people preferred to organise, discuss issues, and post in general, in spaces with visible inhabitants and recognisable boundaries (discussed further in "Boundaries and inhabitants", from p197). In these contexts, deliberation concerned both issues and organisation: participants discussed the best ways to work and campaign, but also developed their understanding of the issues that concerned them, including relevant democratic processes. At one workshop, Victor described this in terms of Ward Anti-Cuts' meetings: "I think that one of the things that we've done in the quieter times is actually carried on meeting and talking quite a lot. And sometimes there may seem like meetings where we just talked together, but actually, I think that we also developed and shared common understandings of things" (Victor).

Of the non-public online spaces, direct research access was restricted to the Ward AC email list and the Hill Facebook Group. Of these only the Hill Facebook Group supported discussion. A few deliberative threads were observed in this Group, but generally posts and comments were short statements or questions and answers, which required little debate. Information about the CPS email list and Facebook Group comes from interviews: they both supported useful discussions, but without access to the actual texts, these cannot be defined in terms of deliberation. The CPS Facebook Group and email list were good for

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<sup>59</sup> Since then Nelson has taken up the Internet and become involved in online campaigning, especially through campaign facilitators 38 Degrees.

sharing information and gathering feedback. Interviewees describe discussions around the use of photos, especially the image with the smoker (Figure 26 on p178). In the workshop, Rachel described this discussion: “there was a wider debate about –is, was it flippant, what we –do you know what I mean? Did it set the right tone? So, you know the one where there’s someone smoking a ciggie? Which was doctored. [...] And there was a lot of to-ing and fro-ing.”



**Figure 29: Photo from HCAT tweet to Local Council on leaving their office (anonysised)**

Photos became elements of deliberation. Through the consecutive time periods of the three case studies digital photography became more prevalent in online participation spaces and in campaigning. This was a period when people who were not at the forefront of technology adoption were getting smart phones. These had digital cameras and apps which made it easy to upload pictures to social networks. Participants increasingly used photos to get their point across: Monty tweeted a photo of sad children holding the HCAT sign, as it was taken down, on leaving their office (Figure 29 on p196). This tweet was public, but directed towards (mentioned) the local council. Photos could engage people with emotional and/or specifically local content; they were affective and supported storytelling (Papacharissi and Easton, 2012; Papacharissi and de Fatima Oliveira, 2012); photos stimulated discussion on social media, as well as attracting attention (discussed further from p206). The photos share the media logics which colonise other contexts: “evocative, encapsulated, highly thematic, familiar to audiences, and easy to use” (Altheide, 2004, p294). Miller suggests that images

which can be described as *memes* are used to share values on social media (2015).<sup>60</sup>

Participation takes affective modes, as well as rational (Dahlgren, 2012), including humour (Graham, 2012; Wright, 2012), images and video (van Zoonen, Vis and Mihelj, 2010; p48, above).

Historically, Dahlberg *did* identify elements of Habermasian deliberation in his study of Minnesota E-Democracy (2001; p50, above). The Minnesotan participants were local people discussing local issues, via email, using their real names. These factors resemble the online participation spaces that supported discussion in the case studies: the Hill Facebook Group, CPS Facebook Group, and CPS email list. On the CPS list, discussion was limited to a few people, as others were reluctant to contribute to email volumes. This highlights a major difference in the technical affordances of email lists and Facebook Groups: each email comment becomes a separate message, filling the inboxes of recipients. The E-Democracy forums avoid this email overload problem by limiting posts to two per person per day (E-Democracy.org, n.d.). In Matthews' study of community engagement (2012), rather than focusing on bounded discussions, he considered the long-term discourse in a community in terms of deliberation within the life world: the "longue durée".

### **7.3 The characteristics of participation spaces**

#### **7.3.1 Sociotechnical spatial characteristics**

This section identifies the characteristics of online and offline spaces which influence their suitability as participation spaces. These characteristics are described spatially and each characteristic combines social and technical elements. The characteristics are the same for online and offline spaces: the space's boundaries, its inhabitants, ownership, access, and cost. Asynchronicity is considered a characteristic of access.

#### **7.3.2 Boundaries and inhabitants**

The most used participation spaces were those with defined boundaries and visible inhabitants, such as offline spaces and closed Facebook groups. These boundaries meant that participants knew who was potentially in the space: they knew who their audience were. Offline participation spaces had physical boundaries and the inhabitants could see each other. They could generally see each other's reactions, as well as simply knowing who

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<sup>60</sup> Social media memes tend to combine photos and text in one image.

their (potential) audience were. Where possible, these spaces were preferred for all tasks: organising (especially making important decisions), involving people, and influencing events. However, the overhead of needing to be in the same place at the same time limited their use. The two non-public Facebook groups have defined and visible boundaries, and were extensively used, supporting discussion as well as information-sharing. Participants who disliked Facebook doubted the Facebook groups' boundaries and used the groups reluctantly, if at all. Armstrong, Dmitri and Stuart felt the boundaries might be porous; Ivan worried about potential boundary-breaches across areas of his life. The Facebook Groups also provide information about inhabitants: people can see who is in the group and some information is available about each member.

The de-facto boundaries of the email lists were the lists of recipients' email addresses in the To, Cc and Bcc fields. This boundary influenced people's use of the list. While each group's email list worked in a different way, the *sender* could always see the list of recipients. On the Ward AC and HCAT lists, only the owners, Jean and Monty, could see the recipients and post to the list. On the CPS Reply-All List, the recipients' email addresses were visible to everyone, so everyone could post to the list. These visible email addresses – the list's visible boundary – influenced people's use: people liked the transparency, but were reluctant to send unnecessary emails to so many people, or to specific people whose professional roles were highlighted by their email addresses. The list's boundaries are dynamic, *enacted* each time an email is sent (cf. Barad, 2003; Suchman, 2005).

Websites, blogs, and public social media, like Twitter and Facebook pages, provide few boundaries between content and potential audience. Content-creators do not know who will see their posts and comments. Several people accepted this, within the confines of their expertise: they posted publicly about topics associated with their profession or campaigns. However, most people were understandably shy about posting in this uncertain context (see p71). Thus public online spaces were maintained by a few people, such as Dave, Monty, and Collingwood, whereas many people posted in non-public online spaces.

Bounded spaces supported groups to collaborate on developing their understanding of issues and processes. Online spaces provided vital information to support this learning process. Cycles of individual learning from external sources, combined with group

discussion, offline or in non-public participation spaces, enabled the groups to develop deep understandings of their issues and formulate potential solutions and related actions. The importance of boundaries clearly relates to Goffman's regions theory (1971): non-public participation spaces, on and offline, are equivalent to backstage regions, where performers prepare. The groups' preparation consists of organising and learning. Public participation spaces, such as public meetings and demonstrations, websites, blogs, and public social media, resemble front regions. Here the participants present the results of their preparations – presentations, petitions, flyers, posters, events – to the public and/or people in power. Deliberation within the group is an organisational activity, whether in terms of discussing issues or campaign strategies. It is not a performance. Participants valued opportunities to discuss issues with people external to the group within situations they initiated, such as public meetings and flyering. Both of these situations invited interaction, but centred on an agenda created by the groups: e.g. the meeting format and flyer text.

As well as preparing for performances, Goffman describes people relaxing in backstage regions. In parallel, non-public participation spaces support vital social interactions. These social interactions may contain useful information about individual participants or the wider context, or they may be phatic communications (Malinowski, 1923, p315) which contribute to group solidarity. Social communications encourage people to visit the participation space, whether turning up to a friendly Ward AC meeting, logging into Facebook, or even checking email. This is discussed further below, from p203 and p206.

### **7.3.3 The iceberg model of participation work**

The STIN studies reveal that the majority of the groups' time is spent in preparation and this supports the public presentation side of their work. Like an iceberg, mostly hidden below the water-line, from the public side, most of the participants' work is invisible. Most of this invisible work is also *informational work*: translating and transposing information between contexts (Downey, 2014; cf. Bowker and Star, 1999). Informational work is at the heart of both participation (Escobar, 2011; 2013) and maintaining information infrastructures (Downey, 2014). The STIN studies highlight the volume and complexity of this informational work for case-study participants. Brodie et al's *Pathways through participation* project includes volunteering as a type of participation (2011). It would be instructive to consider participation as a type of volunteering, given the extensive unpaid work involved and the

contribution of these groups to their communities. In this context, participants struggle to take on the additional work of promoting emergent participation spaces, such as Twitter<sup>61</sup>. Although public social media could support more people's involvement in the groups, each presence or account needs at least one person's concerted attention to gain a critical mass of followers and content.

This iceberg model of activists' work contributes to the strong social informatics theme of work: what do people actually do and how does technology impact on people's roles over time. Kling and Scacchi suggest that "a web analyst who wants to understand how computing developments are integrated into an organization will ask: "What do people do and value here?" (1982, p18). Work is something the STIN models describe: most activities that take place in the participation spaces are non-public preparation for more visible activities, such as public meetings, petitions, and events. This preparation involves both group learning and organisation, all supported by Internet technologies. In light of this, active group members could be categorised as volunteers, putting in a large amount of potentially invisible, informational work, to promote positive change in their communities. Bowker and Star recognise the political significance of the description of work in their discussion of a Nursing Intervention Classification system (1999). By recording and categorising tasks, the system makes the work and skills of the nurses visible and accountable, supporting the professionalisation of nursing. By illustrating the ratio of preparation to public action, the iceberg model draws attention to the participants' work as skilled and extensive. Monty's salaried role as HCAT's Action Manager reflects this.

The iceberg model of the participants' work is useful to eParticipation because it recognises citizen participation as a time-consuming type of work, and because its locus is non-public. Those initiating or evaluating eParticipation projects have been disappointed with citizen take-up (Koussouris, Charalabidis and Askounis, 2011; Millard et al, 2009). The iceberg model illustrates the volume of work required for meaningful participation, as well as indicating that people who are interested in certain political issues are probably already contributing a large amount of voluntary work. EParticipation initiatives are competing for people's time in a crowded market. Haddon's survey of domestication research describes

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<sup>61</sup> While several participants had been using Twitter for a few years, few were regular tweeters, and most were consciously learning about the tool.



how all domestic ICT use is subject to the time structures and constraints under which people already operate (2006). Perhaps eParticipation initiatives could leverage some of the factors that cause people to participate in activist groups, such as the desire to help other people. As social elements and commitment to the group are important, perhaps these could be incorporated, rather than designing initiatives for isolated individual experiences. The other factors that influenced people's use of participation spaces could also usefully be considered, especially boundaries and ownership: participants were more active in spaces where they had information about the other participants and the potential audience for their contributions, and in spaces where ownership was shared (p201, below).

The iceberg model illustrates the comparative volume of participation in non-public to public spaces. Any eParticipation researchers who are using Internet content to investigate participation need to include methods or theoretical constructs which recognise this balance. However, analysing content from non-public spaces, such as Facebook Groups and email, presents significant practical and ethical challenges.

#### **7.3.4 Access and cost**

Where possible, the groups favoured free participation spaces: of the three groups, only HCAT is financed. Ward AC and the CPS campaigners met offline in spaces they did not need to pay for, such as the Community Centre and pub opposite the school. Online, all three groups favoured email and free social media. There are costs associated with these spaces, but these are diversified to individuals, and payments are subsumed into infrastructural costs, such as taxes and Internet access, rather than for each communicative act<sup>62</sup>: the "parameters of cost move from the foreground to the background" (Madianou and Miller, 2012, p126). This means potential exclusion for those who cannot afford infrastructural costs like Internet access. In the long term, it is not clear how viable or ethical it is to rely on free social media, supported by advertising.

#### **7.3.5 Ownership and identity**

Cost impacts on ownership, identity and power. Ward AC's flyers were printed by other groups who had printers, potentially challenging their independent identity. The identity of the Hill.org website reflects the early HCAT projects which funded it. Later HCAT

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<sup>62</sup> Perhaps a round of drinks is the infrastructural cost of meeting in the pub.

participants, including Monty, do not feel ownership for the site; the designers' branding is more prominent than that of HCAT. City Council's Planning Portal aims to support citizen involvement in the planning process, as well as professionals such as developers and council staff. However, the portal reflects the imbalance of power in the process: developers and council staff are trained professionals, navigating the planning process in paid time, whereas objectors are volunteers, learning and participating in their own time; the Council defines the material objections, which may not reflect the concerns of local residents. Further the process may be influenced by payments from developers to City Council.

Public campaigning contexts, such as events, meetings, and distributing flyers, were less firmly bounded than non-public situations: groups did not know who would turn up. However, as initiators of the situation, participants could, to some extent, define the contexts: they established the location, themes and format of public meetings; they controlled the content of flyers and information stalls. This was echoed in public online contexts: group participants provided content, which others could *respond* to.

For Facebook members, ownership and identity are complex: their experience of Facebook pages and groups is related to their personal use. People who are actively using Facebook may experience groups as coterminous to their social use, if group posts appear in their timeline with posts from friends. Emotions and customs are likely to overlap from personal timelines into groups, including "liking", using emoticons, and posting supportive comments or "pithy one-liners" (Rachel, interview). Facebook spaces are continually recreated by software (Kitchin and Dodge, 2011, p16), responding to the activities of members.

Cornwall's ideas about invited and created participation spaces encapsulate these issues (2000). Where people feel ownership of a space, they bring their own customs and processes. Whereas in *invited* spaces, people need to adopt the customs and processes of the space's owners; they are less likely to be confident and comfortable using these; and their range of action and interaction is reduced. This parallels Goffman's regions, where a wider range of behaviour is acceptable in back regions: places where people collaborate with their co-workers (people they perform with). Hill.org, the City Planning Portal and the City Chambers Room are invited spaces. People external to the case-study groups have set the parameters for interaction; participants have to learn how to use the spaces to achieve

their aims, or create a parallel space, like Monty's Hill Blog.

The Hill Blog, Alliance Blog, and HCAT and Ward AC's email lists are owned by individuals: they are invited spaces to the wider communities and support limited interaction from other group members. Although Hill.org and the Hill Blog provide comment facilities, these are rarely used, and then used for directing comments to HCAT, rather than for opening discussions to the wider community. Nobody really felt ownership for the CPS Reply-All List, so no one took responsibility for addressing its issues, and, though it was a vital communications conduit, most people excluded themselves from posting to it. Owning a participation space brings a trade-off between power and responsibility: the space's owner needs enough power and respect in the group to establish the space, but also enough time to maintain up to date content.

### **7.3.6 Participation spaces as more or less social spaces**

In offline spaces, social interactions may almost be taken for granted, as people greet each other at the beginning of meetings or chat at the end. A social occasion, like Hill Gala, provides a good opportunity for HCAT to share their plans. However, online interactions can lose social elements, as content-creators focus on their information-sharing goal. One advantage of Facebook may be that it is a social space which has been adopted for information-sharing. Sociality is designed in, as associates are designated "friends" and the easiest interaction is to "like" a post. Increasingly, Facebook posts centre on images; these convey information and emotion, and engage people in a different way than text. CPS interviewees did not talk much about the social elements of the Parent Council Facebook Group, though they valued supportive comments and emoticons. The Hill Facebook Group was observed over six months: social interactions were interspersed with queries and information sharing, in a similar way to a friendly offline situation. The few comments on Ward AC and Hill Facebook Pages tended to be short and social: supportive or humorous.

The Hill Facebook Group resembles Oldenburg's third place (p48). People gather there regularly, informally, voluntarily. The group emphasises local community, newcomers are welcomed, and regulars use humour to manage conflict. However, access is restricted to Facebook members, who need to accept Facebook's commercial model. Although Oldenburg specifies open access, his examples – pubs and cafes – may restrict access as

their owners' wish. Crucially, third places are *neutral* spaces. The Hill Facebook Group is not owned by HCAT or the Community Council: its members experience it as a community space. Many of the characteristics that make the Hill Facebook Group a third place are inherited from Facebook in general, especially the social characteristics described above. However, the other Facebook spaces in this research are not neutral, but owned by organisations: while Hill's Facebook *Page* is not branded as an HCAT space, Monty clearly manages the page and its content.

More formal online participation spaces are used in a more goal-oriented way. Jean emails the Ward AC list, every other week, to remind people about the regular Ward AC meeting. Monty posts HCAT news to Hill.org, the Hill Blog, and the HCAT email list. CPS campaigners visit the Planning Portal to find specific information or to object to the planning application. If only formal or public online participation spaces were used as data sources about the groups, most of their online communications would be missed.

## **7.4 Information infrastructures and boundary objects**

### **7.4.1 Participation infrastructures**

The participation spaces designation has been useful for encapsulating the sociotechnical assemblages which are used by the groups for participation. It supports comparisons between online and offline spaces and helps to identify bounded phenomena that can be described as STINs. However email and email lists are experienced differently in spatial terms than an offline room or website. In his advice on choosing case studies, Flyvbjerg suggests that atypical or extreme cases can reveal more information, because they are generally more complex: likely to involve more actors and reveal more processes than typical cases (2006, p229).

Certain types of online space, including websites, blogs, and some social media (specifically Facebook) are understood as shared spaces and defined by spatial metaphors, with home pages, navigation, and architecture. Arora provides more examples of this use of physical space to understand virtual space: electronic frontier, information superhighway, walled gardens (2014). In shared participation spaces, the perceived boundaries of the space help to identify the space's inhabitants, and these become actors in the STIN models. The STIN studies are abstractions of participation spaces over time, so neither boundaries nor

inhabitants are fixed. Visitors to online spaces are not necessarily visible if they do not add (or visibly interact with) content. Further, online spaces are experienced differently by different people using different devices, especially where content is personalised. However, the concept of *shared* space endures.

The metaphors which govern email do not pertain to shared space, but to messages, which are sent from one person's space to another's, inbox to inbox. In this way, email is bounded by its sender and recipients, and these become the actors in the STIN models. As noted above (p197), in the three case studies, only those with access to the list of email recipients can email the group. In the CPS Reply-All List, the recipients' visible email addresses, individual and as a quantity, influence people's willingness to post to the list: the importance of the audience is emphasised. By being at the edge of the participation spaces conception, email sheds additional light on how the boundaries of participation spaces are perceived spatially and the relationship between boundaries, inhabitants, and audience, especially the influence of these on that space's use.

Email is essential to all the groups, because it links participation spaces and links people who are not co-present. It helps to bring people into the other participation spaces, especially from offline spaces, where email addresses are collected. Given this linking role, perhaps email should be regarded as an *infrastructure* of participation, rather than a participation space. The STIN studies reveal that email underpins most of each groups' activities. Email is used for organising and involving people, once they have provided their email address. It is crucial for influencing people in power, whether by inviting them to take part in a public question and answer session or asking them to act on an issue. However, email has not been studied much as an eParticipation technology. Perhaps considering it in terms of infrastructure could support an investigation of its role in eParticipation (though research access may be problematic).

Paper flyers have also been explored as a participation space in the Ward Anti-Cuts study (Table 14, on p130; full study in Appendix 25). In many ways, their use resembles email: they provide information, involve people and link participation spaces. Flyers are particularly useful for involving people outside the group's current network. Unlike email, they are a unidirectional technology: people read flyers, but respond face-to-face or via

another medium. Flyers could also usefully be designated as elements of infrastructure: their one-way nature need not disqualify them from this. The STIN studies reveal the difficulties of defining boundaries and actors/inhabitants for Twitter accounts. Metaphors of movement, rather than static space, are also prevalent in Twitter (e.g. messages, Tweetstream, even Tweet). Twitter could also be considered as a participation infrastructure, rather than space. The STIN studies reveal its use as emergent in the case-study groups, so it is not clear how participants will perceive Twitter when their understanding deepens or their confidence grows.

#### **7.4.2 Social media as boundary object**

Star and Griesemer identify boundary objects as information artefacts which support cooperation between groups from different social worlds (1989). People interpret and experience the boundary object differently, according to their context. However, the boundary object is robust enough to support cooperation across the groups' contexts. Facebook appears to be a boundary object for case-study participants. Across the case studies, people from diverse social groups use Facebook. In case studies 2 and 3, the Hill Facebook Group and Parent Council Facebook Group are used by a large proportion of these communities. Hill Facebook Group posts are made by people from diverse social groups; group threads include people sharing information and discussing ways to improve the village: i.e. collaborating. Both Facebook Groups support their communities via members collaborating to fundraise and organise events.

As well as bringing people from various social worlds together, Facebook provides a space for cooperation between people who have different outlooks in terms of online collaboration. There are deep divisions in people's understanding of Facebook. For some people, it provides a useful way to keep up with their families and friends, as well as wider networks. Others dislike Facebook, distrusting its commercial model and privacy settings. These people tend to be uneasy with its social elements, and characterise interactions there as trivial. This group prefers not to socialise online: they use the Internet to look for specific information. They seem to feel in control when getting information, but less so in online social situations; though this may reflect a lack of familiarity with the customs of specific online social spaces. Some people feel that social networks are a waste of time altogether. These groups differ in their attitude towards the Internet as a social space. However, many

of those who dislike Facebook, or suggest social media are a waste of time, joined and used Facebook to keep up with specific groups, especially the Hill Facebook Group and the CPS Parent Council Group. Some, such as Dmitri and Armstrong, even moderate their groups. As people used the groups more, they came to appreciate certain elements and gain more control over their interactions. If these reluctant users continue to use Facebook, over time, their interpretation may become more aligned to the group that are more comfortable with Facebook as a social space, until it is no longer a boundary object; it is domesticated (Star, 2010). Are these changes caused by the affordances of Facebook or customs of its use?

For each person, increasing use will increase usability, as they become more familiar with Facebook's layout and functionality. Certain aspects of use are likely to be driven by the affordances of the site: e.g. the interface makes liking a comment or post the easiest interaction; posting comments does not increase volume problematically, as it can do with emails. As people scroll down timelines, photos are useful for catching attention, especially if these are attractive or emotionally resonant. The number of likes and comments attached to a post, combined with whether it includes photos or video, are factors in how Facebook algorithms, such as EdgeRank, prioritise the post, and how many people Facebook shows it to (Bucher, 2012 and 2013; Gillespie, 2012; van Dijck and Poell, 2013). The sociotechnical affordances of Facebook encourage people to use it in certain ways.

Facebook use is also influenced by individual preferences and group culture. A wealth of research investigates the links between people's personalities and their Facebook interactions: e.g. Schwartz, Eichstaedt, Kern, Dziurzynski, Ramones et al's study of the relationship between personality, gender, and age in the language used in posts and comments (2013). Facebook users are influenced by the cultural norms of their Facebook context: their friends and groups, and their wider culture, especially in terms of age and geography. Aspects of Facebook use follow local custom (Miller, 2011; Miller et al, 2015), such as what proportion of posts people should *like* (Wang, 2012) and what percentage of their photos they should upload (Wang, 2015). People's attitudes towards Facebook are also likely to be modified by their experience, especially if they find more useful information than trivia in the posts they see.

Shifting perspectives reflect the double articulation of Facebook. For Facebook members, it

is an object, with a public image, but is also experienced as a multitude of individual texts, and, potentially, a network of individual and group spaces. This may be understood in terms of *mediation* (Lievrouw, 2014, p21; p68, above). In parallel with the other participation spaces, Facebook can enable, extend, or constrain people's abilities to communicate. These communications reconfigure both Facebook and the groups. Social arrangements (structures, processes, relationships) are influenced by the facilities Facebook provides and the way they are used. The participants' use of specific Facebook presences, especially the Hill Facebook Group and the Parent Council Facebook Group, reflect their importance as *objects* within the case-study group (Bowker and Star, 1999). The school and village are the contexts in which people from different social worlds are collaborating; people who value these contexts join the groups.

The conceptualisation of Facebook as a boundary object is of particular interest to both social informatics and eParticipation. Information infrastructures are a strong theme in social informatics (e.g. Hanseth, Monteiro and Hatling, 1996; Mongili and Pellegrino, 2014; Star, 1999; Star and Rueda, 1994). In particular, Kling and his colleagues developed the STIN framework while studying large academic networks (2003). However, Facebook is problematic as an information infrastructure, due to access problems, privacy issues, and members' lack of control over content. People sacrifice some privacy to become Facebook members and the nature of this is changeable and difficult to understand (see p71). In terms of control over content, Facebook's EdgeRank algorithm selects and prioritises which posts members see in their timeline, including posts from friends, pages and groups (Bucher, 2012, p101; Gillespie, 2012). Different factors are continually reprioritised in the algorithm: people do not know who is likely to see their posts. This is personalisation of content: each member experiences Facebook differently (Marichal, 2013; van Dijck and Poell, 2013). Describing Facebook as a boundary object provides ways to discern how this mutable, uncertain, and almost incomprehensible, information artefact, can be used for information-sharing and collaboration: its social characteristics, combined with its large membership<sup>63</sup> provide the robust identity to bridge these factors (Star and Griesemer, 1989).

While Facebook clearly supports some democratic activities, its privacy options and the

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<sup>63</sup> Facebook provides the following statistics for March 2015: 936 million daily active users and 1.44 billion monthly active users. <http://newsroom.fb.com/company-info/>



personalisation of content are potentially in conflict with democracy (see p45). Trottier and Fuchs (2014) and van Dijck and Poell (2013) realise that social media are potentially transformative technologies for activism, with positive and negative consequences. So these academics provide structures for investigating social media. Considering Facebook as a boundary object provides another structure to explore the relationship between social media and democracy.

In the STIN studies there was considerable overlap between the uses of Facebook and email. This may indicate the future transformation of Facebook from a boundary object to an infrastructural element (Star, 2010). However, other facets of Facebook, such as its commercial model and mutability, may dissuade people and groups from relying on it too much. (Moral judgements are discussed in “Polymedia” on p210). Other social media could potentially be understood as boundary objects. In the case studies, diverse people use Twitter, sharing information across social groups; Twitter appears differently to each person, and its meaning and use are influenced by people’s cultural context. In the Participation Space Studies, Twitter use is emergent. Its potential for collaboration is evident, but the data does not provide good examples. As information infrastructures, Facebook and Twitter both suffer workability problems, as they are rapidly scaled-up (Bowker and Star, 1999, p33).

## **7.5 Polymedia and hybrid media**

### **7.5.1 A standard model**

In computing, the term “standard model” can be used to refer to a current consensus of the way a system works. Presenting findings as corrections to a standard model helps to explain both the findings and their significance. Kling and his colleagues used this technique to present ideas, such as the results of STIN studies, as an improvement on the “model that is implicitly advanced in most discussions” (Kling, McKim and King, 2003, p46). This approach reflects Kling’s earlier work: dominant computerisation discourses could be described as standard models. Meyer identifies the narration of a standard model, followed by its disassembly, as a type of storytelling that supports a critical perspective and makes STIN accessible: “First, set up a story about what ‘everyone believes,’ present data that draws these beliefs into question, and then tell a better story that incorporates social realities with technological features to better incorporate the available data” (Meyer, 2006, p43). If the

model that “everyone believes” is widely disputed, the standard model may be a straw man. Presuming the model describes normative assumptions, it can provide a useful *foil* to situate findings: the standard model summarises conceptual frameworks which have shaped the situation being studied (Horton, Davenport and Wood-Harper, 2005).

The standard model proposed here, for activist and community groups, is that each group has a dominant public online presence, such as a website, blog, or Facebook page, which is predominantly associated with the group: a one-to-one relationship. People interested in the group’s work can find this presence via a search engine and find information about the group there. In the three case studies, only Ward Anti-Cuts have a public online presence that is not shared with other groups: their Facebook Page. This was set up within the case-study period, 18 months after the group’s first successful campaign. Searching for Ward AC leads first to the *shared* Alliance Blog, followed by their Facebook Page. The participation spaces which turn up in the first pages of a Google search for the other two groups are shared or third party websites: Hill.org, for HCAT, followed by third party websites listing related charities; Hyperlocal Paper, for the CPS campaign. Though HCAT paid for Hill.org, it had been designed as a community website. Information about HCAT is a couple of levels down, parallel with Hill’s other community groups, and lacks detail. Rather than maintaining a website about their group, the case-study groups share public web presences with their wider communities and use integrated collections of public and non-public, online and offline media. For each group, the online spaces they use most are non-public. The most important way to get new people involved is through flyers, posters, or third-party media. Searching the Internet would only provide a partial and unrepresentative picture of the groups’ activities and communications.

### **7.5.2 Polymedia**

This pattern of *integrated* media use resembles Madianou and Miller’s polymedia model (2013; 2013; p70, above). As in polymedia theory, each case-study group exists in an ecology of media, including online participation spaces and infrastructural elements. Their understanding and use of media is integrated, *horizontally and historically*: participation spaces are discussed in terms of each other (horizontally) and in terms of previous communication methods (historically) (Madianou and Miller, 2013, p171). Madianou and Miller’s preconditions for polymedia specify a situation in which decisions about media use

are not primarily affected by access, affordability, or literacy (Madianou, 2014). Thus, for all case-study groups, polymedia can only be *emergent*: each group does not want to exclude people without good Internet access, including the language and digital skills to use it; flyers are a key media, but have a cost per unit.

Media are used together: content is posted in one participation space and linked to from another, automatically or by hand. Participants continually make choices about which media to use for which task. This choice is rarely based on cost, but based on the affordances of the media, combined with emotional or moral considerations about appropriate use. Ward Anti-Cuts limit online communication to short informative text, reserving discussion to face-to-face contexts, for example at meetings where the agenda and people's roles are established. HCAT present positive news on public sites, but are more open in their closed Facebook Group. (Tweeting an emotive photo to the local council on the day they have to leave their office is an exception to their usual practice). The CPS campaigners use Hyperlocal Paper to share their issues with a supportive wider audience, but carefully restrict potential observers as they plan their objection strategy in non-public spaces. Facebook and email provide opportunities to share and discuss photos, with Facebook supporting a wider discussion and email supporting higher image resolutions. Email also supports sensitive discussions in tighter groups. The CPS parents think very carefully about the emotional and intellectual impact of their photos on their campaign. All three groups are open to moral judgements for their choices, including: choosing media that are less transparent, such as email; using Facebook at all; excluding people by using Facebook without providing the information elsewhere; not providing information offline; avoiding certain issues altogether. These judgements are recorded in the STIN models, especially identified with excluded actors and undesired interactions.

In polymedia theory, media come to constitute relationships. Participation spaces also constitute the case-study groups (p192, above): the reminder email becomes an essential part of Ward Anti-Cuts' meetings; the Hill Facebook Group embeds HCAT in the Hill community; the CPS campaign is experienced as a full and chaotic inbox or through an emotive photo. Madianou and Miller describe the relationships between their participants (mothers and children) as triangles, in which the third element is an idealised version of the mother-child relationship (2012). It would be interesting to pursue this idea in

eParticipation, with ideals about democracy integrated into eParticipation relationships between people and government, partially constituted by media.

Polymedia theory is a natural fit with social informatics. People communicate with each other within an ecology of available media, whose affordances are technical and social and understood historically. This reflects established social informatics' ideas and could be described using Kling and Scacchi's Web Model (1982) or as a STIN. Polymedia theory draws attention to complexity and the interactions between elements; it discourages atomistic studies of individual technologies. The preconditions for polymedia draw attention to the role of resources, both skills and finance. Media come to constitute relationships, entwining social and technical elements in individuals' lives. All these elements reflect the findings and concerns of social informatics (e.g. as summarised by Sanfilippo and Fichman, 2014; and in the STIN strategy, p79). In mediation and polymedia, people are potentially judged for their media choices. This important aspect of media use – external judgement and potential judgement – resonates with STIN questions about motivations and about resources in terms of account taking dependencies (Eschenfelder and Chase, 2002), as well as discourses around technologies encapsulated in the Web of Computing (Kling and Scacchi, 1982) and computerization studies (Dunlop and Kling, 1991; Hara and Rosenbaum, 2008). Polymedia brings this concept onto a more personal level. So, while polymedia does not introduce new concepts to social informatics, it does provide a new conceptual package and a useful bridge into mediation studies. Further, polymedia theory is derived from ethnographic research in the context of the family. Domestic contexts are important contemporary research fields for social informatics, especially in terms of people's participation, in work or civic life, from within their homes or via mobile devices.

Polymedia theory is a timely addition to eParticipation research. In the STIN studies, much of the participants' work, in terms of organising, trying to involve people and trying to influence events, takes place over the Internet while people are dispersed. Most participants are volunteers, acting in their own time, often from home. Polymedia's domestic perspective could illuminate this under-researched aspect of eParticipation. The focus on relationships may deepen understanding of the role of social activities and spaces in participation (see p203). Understanding polymedia requires research methodologies which centre on participants; otherwise investigations are biased towards spaces that are

easy to find and gather data from.

The Participation Space Studies are new contexts for polymedia theory: they focus on groups and democracy, rather than family relationships. In the STIN models, decisions about which participation spaces to use for which task are taken both at an individual and group level, and these two levels are linked: e.g. individuals overcome their reluctance to use Facebook in order to collaborate with their group; groups maintain additional or parallel participation spaces to avoid excluding any members. This brings another level to people's choices and judgements. Using polymedia in the context of democracy furthers exploration of the impact of morality and ideals on media choices, as well as integrated use and media constituting relationships.

### **7.5.3 Hybrid media**

Chadwick (2013) describes integrated media use in politics and campaigning in terms of Hybrid Media Systems (p49, above). This conception is more explicitly concerned with understanding how media support the relative *power* of various actors: "Actors constantly mobilize but also constantly traverse the logics of older and newer media to advance their values and interests" (Chadwick, 2013, p17). Power is not a dominant theme in this thesis, though it may be seen as the defining characteristic of participation (Arnstein, 1969, p216; Carpentier, 2011). Rather, in the STIN models, power *underlies* all the groups' activities. Their icebergs of work are necessary to challenge established power structures, such as City Council. The groups' leaders personify the relationship between power and responsibility, as they primarily lead by example and facilitation: doing, rather than telling people what to do. This is reflected in the ownership of participation spaces: either the leaders take a very active role or the space is neglected by the group.

The STIN models describe the trade-offs participants make in their media choices. These choices are made in changing and uncertain circumstances, balancing practicalities and ideals. Hybrid media acknowledges the "flux, in-betweenness, the interstitial, and the liminal. It is about being out of sync with a familiar past and a half-grasped future." (Chadwick, 2013, p8). This is a resonant description of social media: fragmented infrastructures, commercial spaces, and potentially a de facto public sphere (Marichal, 2012; Papacharissi, 2009). These boundary objects are deeply integrated with other media and

networks, and continually evolving: a challenging climate for effective use by volunteers. Chadwick's focus on the integration between older and newer forms of media reflects the role of flyers in the Participation Space Studies. This mobile offline technology, used for hundreds of years, now provides handy links to online spaces, including e-petitions and social media.

## **7.6 Conclusions**

At the Ward Anti-Cuts workshop, Tom reacted to seeing their work in the interactor diagrams: "Seems to me to represent an extraordinary amount of interaction and energy." The STIN diagrams, and the complete STIN models, provide pictures of the use of each participation space over a set time period. Following the STIN framework, the salient elements of participation in each space are recorded: including activities, integration between spaces, history and exclusion. Together, these models of participation spaces provide a detailed picture of the three groups which contributes to our understanding of contemporary participation and eParticipation in Scotland.

The participation spaces supported democracy: they helped the groups to organise and influence events. The groups needed to use ICTs because their opportunities to meet face-to-face were limited. Email and Facebook Groups enabled participants to organise and campaign in their available time, from home. The characteristics which governed participants' choice of participation space were sociotechnical and spatial: boundaries, inhabitants, access (especially asynchronicity), ownership, and cost. The participation spaces shaped and constituted the groups and their campaigns, supporting collaboration, community, and storytelling.

Investigating and modelling participation spaces has provided insights into the conditions and work of grassroots participation. Deliberation is mostly non-public and concerned with organisation and developing understanding. Affective modes are as important as rational; this is especially evident in the role of images. Through the three consecutive case studies, everyday digital photography is emergent, as smart-phones become more prevalent. An iceberg metaphor illustrates the work of democracy: a large volume of skilled, usually unpaid, and mostly invisible, information work; a small volume of public campaigning. Recording this participation work, space by space, draws attention to the role of activists as

volunteers, as they contribute their time and skills to improve their communities.

Social media is a contentious issue in eParticipation. This research furthers our understanding of its place in contemporary participation, especially the importance of non-public Facebook Groups. Understanding social media as boundary objects, potentially turning into information infrastructures, contributes to the extensive debates about its role in the public sphere. This chapter has begun to identify the dynamic relationship between participation spaces and information infrastructures, including cases such as email, Twitter and flyers, which could usefully be described as participation infrastructures.

Case-study groups used participation spaces together, in sociotechnical assemblages. This reflects traditional social informatics models, but can also be understood in terms of the mediation models: polymedia and hybrid media. The picture of participation spaces being used together, including online and offline spaces and infrastructural technologies like email and flyers, fits well into social informatics' conceptions of sociotechnical assemblages, especially Web Models and STINs. It is not a new conception to eParticipation (e.g. Chadwick, 2013; Panagiotopoulos and Al-Debei, 2010; Panagiotopoulos and Ellman, 2012). However, it needs to be emphasised so that initiatives and studies which focus on one technology or participation space consider the necessary integration of other elements.

The data gathering approach used in the Participation Space Studies is reviewed in the next, penultimate, chapter, which also evaluates the usefulness of the STIN framework and the participation spaces designation. This chapter has begun this process by showing the many ways in which the STIN framework illuminated the work of the case-study groups and the role of the participation spaces concept in describing both this work and its contexts. The final contribution of this study is the implementation of the STIN methodology that provided these findings. This is discussed in the next chapter.

## 8 Reviewing the methodological approach

### 8.1 Overview

This penultimate chapter reviews the Participation Space Studies' methodological approach. The research began by describing certain sociotechnical assemblages as online or offline *spaces* and creating the concept of a participation space to describe those spaces where participation was taking place. With this concept in place, the research aimed to identify *the spaces that are currently considered, used or created for participation, by people trying to influence matters which concern them*. Case studies focused on three activist and community groups. The data collection methodology was influenced by ethnography. It emphasised in situ investigation and understanding both participation and technology according to the perspectives and motivations of the people involved. Participation spaces for each case-study group were identified; six or seven of these, for each group, were modelled as Socio-Technical Interaction Networks (STINs). These processes recorded the case-study groups' participation in democracy as activities that took place in and across the participation spaces, while also describing people's access to and use of technologies, including their preferences.

Analysis across the STIN models revealed *the characteristics of the participation spaces that supported participation*, including the characteristics that made people more or less likely to use each space. The models also revealed information about the nature of participation in these contexts: i.e. people's activities to achieve the aims of their group (to improve their communities and local environments). Together, the participation space models for each case study provided a picture of each group, their activities, motivations, challenges, history, and resources. Finally, the STIN models were analysed to identify *the characteristics of people and groups that influence their choices and uses of participation spaces*.

This chapter considers the advantages, challenges, and limitations of this particular implementation: first, the participation spaces designation; then the case study approach, focusing on groups and influenced by ethnography; the use of the STIN framework is reviewed, reflecting on comparable implementations and in this particular work, where families of STINs were modelled and diagrams played a central role. Finally, this chapter summarises the methodological contribution of the Participation Space Studies.



## 8.2 The participation spaces designation

The participation spaces designation structured the research throughout, from data collection, through STIN modelling and analysis. It is the foundational concept of this research, providing a way to identify and describe the contexts of participation, whether these are physical and temporal offline spaces or mutable online spaces, such as websites and social media. The goal is to identify the relationship between the sociotechnical characteristics of certain contexts and people's use of them for participation. Describing these as participation spaces enables the contexts to be bounded and abstracted in order to be modelled and analysed. This process necessarily simplifies each context and this section assesses the extent to which this is helpful or potentially distorting.

Firstly, as discussed in the previous chapter, for both online and offline spaces, the participation space designation led to understanding the key characteristics *spatially*: in terms of boundaries, inhabitants, ownership, access, and cost. Access includes the vital dimensions of asynchronicity and distributed communication, where people could share information without being in the same place at the same time. This spatial focus enabled these characteristics to be explored using social theories which respond to space and bounded situations. However, the spatial metaphor sat a little uneasily with email, flyers, and Twitter, though this did not cause problems in terms of data collection. As described in the previous chapter (p204), these spaces would be better described as participation infrastructures. As the STIN framework was originally designed to study infrastructures, such as e-collaboratories (Kling, McKim and King, 2003; Meyer and Kling, 2002), this difference was not a problem for the STIN modelling.

Describing email and social media as though they were bounded spaces supports analysis but may oversimplify the way that these are experienced by individuals on their devices. Messages (emails and social media posts) are primarily encountered within individual timelines and accounts. This experience is reflected in Papacharissi's description of online spaces: "Space is not only multiplied, it is simultaneously fragmented and reassembled into structures that attain greater reflexivity" (2009, p13). People's creation of and reaction to email and social media posts is likely to reflect the online context in which they experience them and further information about this would be a useful addition to this research. The focus on groups, combined with the scope of the research overall, limited the attention

available to focus on individual participants' experiences in detail. In particular, it would have been interesting to work with more specific information about email, social media and device use, especially due to the personalisation of social media. As gathering this data would require a different research design, including a reduction in scale elsewhere, this work is proposed in "Reflections and future work" on p227.

In defining participation space units, email use was abstracted into one participation space per case-study group. These email STIN studies worked as umbrella descriptions of email lists and other email exchanges: tolerating diverse characteristics and usage, recognising shared characteristics and integration. However, creating two email abstractions, per case, may have been a tidier categorisation, recognising the different, if overlapping characteristics between email lists and exchanges between people in small groups.

The choice of participation spaces to analyse was governed by observations and interviewees' accounts. Participation spaces could be neglected if they were under-represented in interviews and available data, compared to their importance to the groups' campaigns. City Primary School campaigners appeared on the television: potentially the most important media for the campaigners' peers. The TV appearance was mentioned by one interviewee in passing and returned to in the workshops, but the clip was not evident through searching the Internet, unlike articles in local papers. According to its online availability, the importance of the TV appearance has faded over time, reflecting two of boyd's affordances of networked publics: persistence and searchability (2010, p46). This also reflects Chadwick's observations about the balance between the availability and power of information online and established media (2013, p208). Persistence may also influence the position of phone calls within the Participation Space Studies. Participants mention these, generally paired with either email or word of mouth, depending on the context. As they are both transient and unobserved, their trace in the data is faint and their position in the studies is peripheral.

In case study two, HCAT participants put little emphasis on the DPEA inquiry into the potential windfarm, either in interviews or online content. This may be because the inquiry was located outside Hill or because they felt it was out of their hands. Considering the inquiry, or its website, as a participation space, would have provided an interesting picture

of HCAT's interactions with government and neighbouring communities. However, the DPEA inquiry was investigated by focusing on the wind-farm as an event and this served to illustrate how (and how little) HCAT communicated about the inquiry to the Hill community through their participation spaces (p163).

### **8.3 The case study approach and data collection**

This research set out to explore participation and eParticipation in terms of the activities of people trying to influence matters which concerned them. Groups were chosen as the focus of case studies, rather than individuals. This choice grew from the roots of the research in organisational research (p89). The focus on groups feeds into the intersection with communities of practice research within the boundary object concept (Bowker and Star, 1999; Star, 2010; Star and Griesemer, 1989), and enables the studies to be aligned with eParticipation work which focuses on social movements and activist groups (e.g. Chadwick, 2013; Mercea, 2013; Segerberg and Bennett, 2011).

Each case-study group had goals which brought individuals together and defined the group. For the researcher, this simplified identifying goals and understanding the groups' effectiveness, compared to individual activism. The collection of people in each group provided information about the group's activities through providing observable interactions and individual perspectives. The groups needed to coordinate their work. In case studies one and two, organisational events, such as meetings, provided opportunities to observe and get to know people. Coordination, organisation and learning together were the groups' main activities, by volume. These were essential in creating the groups' outputs and influencing their environments. However, these activities are also integral to groups. A different perspective on issue-based activism would have emerged by focusing on individuals.

Ethnographically-informed data collection methods were chosen, in order to study these groups in context. Here, the group context resembles a culture that the researcher gradually comprehends (Harper, 2000; Geertz, 1973; Van Maanen, 1979). The path of data gathering and analysis travels *from* the situated activities of people associated with the case-study groups *to* the use of spaces and technologies. This provides information that may be missing from approaches travelling in the opposite direction, e.g. from Internet content, such as

social media posts, to conjectures about people's behaviour. These studies, while useful, may miss vital contextual information, such as integration across online spaces or the role of offline elements. Even small qualitative studies may lack contextual information if available public online data is the sole input (p77). The case-study groups all favoured non-public online spaces. A study based on publicly available data, would underestimate the importance of the Internet to these groups. In terms of public websites, the groups were mostly in a many-to-many position, where each group used a number of public online spaces to support their work, mostly spaces shared with other groups or wider communities (p209). Research beginning with an online search could fail to identify the spaces each group was using, as they were not necessarily labelled with the group's name.

The person-centred data collection methods brought challenges for emergent participation spaces, such as Twitter. As participants were developing their understanding during the case-study period, online observation became more important in understanding the groups' use of this space. However, certain elements of online observation, in terms of followers and retweets, were time sensitive and not available when the STINs were modelled. Twitter accounts are challenging to study due to the flow of data, flux of actors, personalisation, and variety of interfaces. If Twitter had been important to the groups, within the case-study periods, the studies would have benefited from a specialised approach to gathering and modelling the necessary data (e.g. Ahmed, 2015; Gaffney and Puschmann, 2014).

Activities which involve people from *beyond* the case-study groups are described in the STIN models, based on observations and interviewees' accounts, as the data collection focused on what the participants did. People outside the groups were also actors in participation spaces, including people being given flyers or councillors being lobbied. Some people at the peripheries of the participation spaces were interviewed, including two councillors and two community councillors; some completed short surveys about their communications with the group. However, it was beyond the scope of the research to gather peripheral actors' perspectives in any detail. Further, as the case studies were relatively short in ethnographic terms (p87), some issues or perspectives may have remained hidden. For example, while conflict is inevitable in groups, over time, very little was observed or mentioned.

The case study approach was successful in provided a wealth of data from which to model

the groups' participation spaces as STINs. Using a participant-centred, exploratory style brought challenges in scoping the research and managing emergent contexts. As the studies centred on information provided by certain participants, on and offline, other perspectives could potentially be missed.

#### **8.4 The STIN framework**

In this thesis, the SIN strategy is considered as a framework for modelling and analysing sociotechnical assemblages. Describing a participation space as a *sociotechnical assemblage* enables technologies and groups of technologies, including people, to be understood as complex, but bounded phenomena. In this way, designating a participation space as a *Socio-Technical Interaction Network* is more or less *helpful*, rather than more or less *accurate*. While the space designation was a little clumsy for message-centred media, such as email, the STIN concept, as analytic structure or metaphor, was appropriate for all the participation spaces identified: it was a helpful way to structure the data gathered about each space and support comparisons across very different spaces. Further, it is evident in the integration between the participation spaces, especially as shown in the interactor diagrams, that each case-study group could be described as a group STIN, with the participation space STINs nested, as actors, within. This metaphor of nested STINs supports the idea that certain participation spaces constitute the groups.

The STIN framework supported sociotechnical understandings of the case-study groups and their activities, leading to the findings identified in the previous chapter, and aligning this research to social informatics and social shaping studies. A good understanding of the foundational concepts of social informatics was necessary to use the STIN heuristics. Two comparable studies, according to their scale, are Meyer and Suri's doctoral research (Meyer, 2007; Suri, 2013). Both used the STIN heuristics to guide their data collection, as well as to support analysis, combined with other approaches. Whereas, in this study, the framework was not applied until the analysis phase: *post-hoc* (Meyer, 2007, p273). Reviewing the three studies together, it is clear that the STIN approach is a useful checklist or structural framework for social informatics researchers, at any phase of a research project. However, the STIN heuristics would need explanatory materials to provide a framework that could be adopted by researchers from other fields. This is discussed as future work (p229).

The STIN heuristics provide a framework which supports modelling in both breadth and depth. They structure the models of participation spaces both in terms of internal elements (as networks) and external elements (situated). Further, the heuristics encourage the researcher to include historic elements and current trajectories, leading to holistic models. It is challenging to create and comprehend detailed models according to these criteria and this is compounded by modelling 19 STINs. However, the STIN framework supports analysis of these many and varied spaces by providing a consistent structure. In this implementation, the use of diagrams helped to meet the cognitive challenges of scope and the number of STINs: diagrams made diverse and complex information available in one view. The diagrams enable the reader to helicopter away from the collation of detail to see the larger picture. It is possible to move around more quickly and easily than within narrative text: this supports understanding and analysis (Clarke, 2005, p30). The diagrams also helped to create more robust STIN models: mapping interactions between elements led to improving the accuracy of descriptive text, iteratively. Creating the “Motivations, Exclusions and Problematic Interactions” diagrams encouraged these elements to be abstracted and enabled their easy extraction to spreadsheets to support further manipulation (p117).

Given the volume and diversity of data collected, the STIN diagrams served to structure that data and to share it with other people. The interactor diagrams supported discussion with participants, in the workshops, a year after the case studies were implemented. In this light intervention the diagrams were vehicles to share insights from the STIN studies with the case-study groups. This also provided opportunities for the research to be validated, to some extent, through coherence between the researcher’s interpretation and the participants’ experiences. Identified discrepancies were minor, and contributed to the accuracy of the final results. However, the interactor diagrams used in the workshops present abstractions of the use of participation spaces across the case-study period. As this is an abstraction over time, the diagrams are static in a way that the groups’ use of participation spaces is not. This slightly flattens the relative importance of various actors and information flows. The case studies benefit from the balance between abstracted individual STIN models and the dynamic narratives and describing events. It would have been useful to share timeline diagrams with workshop participants, in parallel with interactor diagrams. Using all three types of diagrams (interactor, motivations, and

timelines) supported presentation of the STIN models to other researchers in seminars and conferences. This yielded observations and discussions which fed back into the research.

According to the literature review, this implementation of the STIN framework is unique in terms of modelling a large number of related elements as families of STINs. This worked well at the level of case-study group and participation space, but was challenging in terms of the volume and complexity of the work. The diagrams were essential in meeting these challenges.

### **8.5 Methodological contribution**

The Participation Space Studies apply the concepts of social informatics to three contemporary contexts of group participation. The main methodological contribution of this research is the introduction of the participation space concept to bound online or offline contexts used for participation and describe them as sociotechnical assemblages. As far as the researcher is aware, the participation spaces research is unique in its holistic investigation of community and activist groups as sociotechnical assemblages, in the context of eParticipation, and its implementation of STIN modelling. As the STIN framework is not widely used, each published implementation has a potentially large impact on its future uptake. The Participation Space Studies pioneer the implementation of families of STINs to describe a larger context and the use of diagrams to respond to grouped heuristics and describe relationships and trajectories. The creation of STIN diagrams has been one of this implementation's major strengths and is strongly recommended to anyone following a STIN approach.

In social informatics and related fields, social and technical elements are always entwined, but this relationship is always contextual and always evolving. The Participation Space Studies contribute to the body of sociotechnical and social-shaping studies, by demonstrating this in the context of grassroots democracy. This research has illustrated certain Internet technologies becoming essential constituent parts of community and activist groups, showing how their use shapes the groups' activities and supports people to become involved.

### **8.6 Conclusions**

This chapter has reviewed this research implementation in terms of its foundational concept

of a participation space, its focus on groups, and the use of participant-centred and in situ data collection methods. It has assessed the advantages and limitations of choosing participation spaces as the units of analysis and of choosing the STIN framework to model these. In considering the contributions of this methodological approach, this chapter has identified the concept, subject, and implementation as unique: participation spaces, community and activist groups as sociotechnical assemblages, and modelling families of STINs. The extensive use of STIN diagrams has been the key to creating effective Participation Space Studies. This research has opened methods and avenues of exploration which would reward future research. These are suggested in the next, and concluding, chapter.



## **9 Conclusions and reflections**

### **9.1 Overview**

This concluding chapter provides an overview of the Participation Space Studies and the contributions of this research. It also includes reflections which further contextualise the work according to the wider political climate in Scotland, during and following the case study period. Future work is suggested to address questions raised by these studies in this context. The thesis ends by highlighting the impacts of this research for practitioners, including citizens working to influence events and governing bodies trying to involve citizens in their work.

### **9.2 The Participation Space Studies**

The Participation Space Studies explore and describe grass-roots participation in contemporary democracy in order to contribute empirical evidence to the field of eParticipation. This research investigated citizen-led participation by focusing on the online and offline spaces where people worked together to influence those in power and improve their local communities. The concept of a participation space is introduced to describe these spaces as sociotechnical contexts. EParticipation is understood as a dynamic sociotechnical context within the paradigm of social informatics. Democratic participation is understood broadly. From informal day-to-day interactions to formal opportunities provided by institutions, participation is identified as activities which participants undertake to further the aims of their groups, to improve their local environments and communities.

Three case studies were established: with a local anti-cuts group, a village community trust and primary school parents campaigning against a proposed development. The activities, characteristics, and culture of the groups were explored through ethnographically-informed data collection methods, including interviews and participant observation, on and offline. Each group's work took place across a number of locations and infrastructures, including physical spaces, websites, blogs, social media, email, and paper media. Several of these contexts were identified for each case-study group and designated as participation spaces. These spaces were modelled as Socio-Technical Interaction Networks, using a framework based on Kling, McKim and King's heuristics (2003) and the data gathered through working with the groups. Nineteen participation space models were created, consisting of structured

text and diagrams. The models depict the relationships between the groups and the technologies they use to support their work and provide descriptions of contemporary grass-roots participation, in context. The identification, investigation, and analysis of these participation spaces answer the three research questions:

- What spaces are considered, used or created for participation, by people trying to improve their local communities?
- What characteristics of these spaces influence their use as participation spaces?
- What characteristics of people and groups influence their choices and uses of participation spaces?

Insights from this exploration of the relationship between activities and contexts in citizen-led participation are the findings of this work, understood in sociotechnical terms and summarised as the contributions.

### **9.3 Contributions**

This thesis contributes to knowledge by providing the concept of a participation space and illustrating the mutual-shaping relationship between technology and democracy in the case-study groups. Their democratic participation is made possible by online technologies, especially email, and they create online communities and networks around their goals. Participants' choice of technologies can be understood in spatial terms: boundaries, inhabitants, access, ownership, and cost. Each case-study group used integrated collections of online and offline media, and shared participation spaces with other groups and wider communities. Online technologies are integrated with offline technologies, spaces and events. This can be understood in terms of social informatics models, such as web models (Kling and Scacchi, 1982) or networks (Kling, McKim and King, 2003), and the mediation theories of polymedia (Madianou and Miller, 2012) and hybrid media (Chadwick, 2013).

This thesis contributes evidence to recognise the work of activists, and others working to promote their communities' wellbeing, and to categorise it as volunteering. Like an iceberg, with publicly visible events and campaigns above the waterline, the majority of participants' work is hidden and non-public, on and offline. This extensive, and mostly unpaid, work of collaborative learning and organisation provides a vital infrastructure to our democracy.

The groups involve people and influence events through emotional and symbolic impact, as well as rational argument. Images are powerful vehicles for this, carrying information and emotion in handy packages. Throughout the case studies increased use of smart phones was observed and digital images seemed to become more central to people's participation, especially on social media; images can influence those in power, even bypassing the dispositifs of planning regulations. Use of social media spaces can be understood in terms of boundary objects (Star and Griesemer, 1989), as people from diverse social groups collaborate via Facebook. This conception may help to understand the role of social media in democracy. This implementation contributes to social informatics by adapting the STIN approach to model families of STINs. This implementation is effective through the use of diagrams, which contribute to modelling, analysis, and collaboration.

## **9.4 Reflections and future work**

### **9.4.1 EParticipation in non-public participation spaces**

This thesis has described eParticipation, in the context of the case-study groups, as predominantly taking place in non-public spaces. Further research is needed to discover whether this ratio of public to non-public participation is applicable more widely: to individuals and other groups, and across cultures, including age groups. EParticipation in non-public spaces and infrastructures, such as Facebook and email, needs further investigation, especially if most online participation takes place in these contexts. In the Participation Space Studies, people's use of space is influenced, among other things, by its boundaries, inhabitants, and ownership. Providing an ethical sociotechnical study could be designed, this research could reveal how these characteristics influence participation in non-public spaces and how this compares to public participation (e.g. Quinlan, Shephard and Paterson 2015). A person-centred approach may be more suitable than a content-centred study. The researcher's experience of the Scottish Independence Referendum, in 2014, is that some thoughtful deliberation took place in non-public spaces, on and offline, and that the mores of these discussions were influenced by the contexts of the space. For example, discussions on people's personal Facebook timelines could be gentle and deliberative, with both parties conceding points, or blunt and polarised, according to the character of the page's owner and the other content on his or her page.

#### **9.4.2 Personal digital assemblages for participation**

It would be useful to focus on the personal digital assemblages of individual participants, to model their personal context, experience of participation spaces, devices, and network access. Investigating these personal assemblages would support a greater focus on materiality and devices, and the personalisation of participation spaces. Online spaces, including search engines, news websites and social media, increasingly personalise their content according to their records of the visitor's previous interactions (Bucher, 2012; Gillespie, 2012; Tufekci, 2014; van Dijck and Poell, 2013). Social media content travels from its creators' online contexts to the contexts of its recipients. How are online spaces bounded and experienced in this process, and how do personal online contexts, such as timelines or tweetstreams, influence people's creation of and reaction to social media posts and comments? Content is further modified according to the device used to access it: phone and tablet apps may reduce individuals' control over content, potentially increasing echo chamber or filter bubble effects (Graham and Dutton, 2014; Pariser, 2012). Investigating personal participation assemblages would provide more specific information about the relationships between participation spaces and their use by individuals. More detailed information about device use would reflect the turn to materiality exemplified by software studies and mediation (Bucher, 2012; Gillespie, Boczkowski and Foot, 2014; Lievrouw, 2014). It would fulfil Orlikowski and Iacono's request to engage with the IT artefact (2001). This proposed research could also draw from the locus and frameworks of *domestication* studies (Haddon, 2006), recognising that a good deal of eParticipation probably takes place within the home and investigating the effects of this context.

#### **9.4.3 Understanding social media as boundary objects**

This thesis suggests that Facebook may be a boundary object, supporting collaboration across diverse social groups. Twitter use was emergent in the case studies. It seemed reasonable that Twitter could also be understood as a boundary object, but the data gathered was insufficient to support this conjecture. It would be interesting to investigate the collaborative use of a wide range of social media, including and beyond those used by the case-study groups, according to the characteristics of boundary objects. This research could reveal whether this is a reasonable designation, and what is gained by describing social media this way.

#### **9.4.4 Grassroots eParticipation in contemporary Scotland**

Would the findings in this thesis be relevant to many community and activist groups in the contemporary Scottish context? A review of the literature has not uncovered any baseline studies contextualising group participation throughout Scotland – any surveys or datasets of groups for the whole country. This is a noticeable research gap, which would be useful, if challenging, to fill. Since the case studies, the democratic climate in Scotland has undergone some upheaval due to the Independence Referendum in September 2014. Many small local groups formed to campaign and some pro-independence groups have continued to meet<sup>64</sup>. Following the referendum, membership of both the Scottish National Party and the Scottish Green Party quadrupled (Scotsman, 2015; Scottish Greens, 2014). Many “Yes” groups went on to campaign for the SNP in the 2015 UK General Election, where the SNP won 56 of 59 seats (BBC, 2015). How this translates into community or issue-level participation, and how it impacts on the landscape of participation spaces, are questions for future research.

This thesis suggests that activism should be considered in terms of volunteering, recognising the work and skills involved, as well as its usefulness to society. Further research could explore the nature and portrayal of unpaid informational work in the context of democracy. This is related to Fuchs’ work on digital labour and social media (e.g. Fuchs and Sevignani, 2013). The role of democratic ideals in a triangular relationship with activists and media could potentially be explored using Polymedia theory, as suggested above (p210).

#### **9.4.5 STIN methodologies**

There are now enough STIN implementations to justify a review (See Table 8 on p107). A review would reveal STIN’s strengths and weaknesses across the studies. On the basis of this, the STIN approach could *evolve*, ideally collaboratively. The STIN heuristics could be rephrased or recombined, perhaps prioritised; they could be repackaged or annotated with further guidelines. It does not seem appropriate to suggest improvements based on the Participation Space Studies, because of the unusual implementation, modelling many parallel STINs, except to promote the use of diagrams, including timelines.

### **9.5 Impact on practice**

The findings of this research have implications for organisations working in democracy,

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<sup>64</sup> E.g. see Mitchell, Bennie and Knowles study of Women for Independence (Wfi) (2016).

including public bodies, especially government, as well as community and activist groups. The STIN studies demonstrate the social and technical as entwined. This relationship can be influenced (MacKenzie and Wajcman, 1999; Orlikowski and Iacono, 2001; Williams and Edge, 1996) and this section suggests actions to increase the presence of democratic values in potential participation spaces, especially online.

STIN heuristic H4 asks the researcher to identify excluded actors and undesired interactions (Kling, McKim and King, 2003). As online spaces, especially email, become essential to local activism and participation, people without good Internet access are easily excluded. These people may not have digital skills, yet, but are likely to have useful skills to contribute to democracy. The digital divide needs to be addressed, in terms of access, support and skills, if active participatory democracy is to spread throughout the population.

STIN heuristic H6 directs the researcher to investigate resource flows. Two of the groups had no organisational finance and predominantly relied on free participation spaces. For HCAT, free participation spaces enabled greater involvement of the Hill community, as shared ownership was possible. However, choosing free tools involves compromises that may not be sustainable in the long term. Two groups used ad hoc email lists. All groups used commercial social media which are supported by advertising. Facebook, in particular, also presents challenges in terms of privacy and access. Public bodies in the UK have access to free online tools to support collaboration, including JISC tools, for those involved in education, and the Knowledge Hub, for public service<sup>65</sup>. Some organisations provide tools for activists: e.g. Riseup provides tools for groups working towards social change<sup>66</sup>. Organisations whose remit is to promote democracy could usefully supply online collaboration tools, such as email discussion lists, for community and activist groups.

As well as the three case-study groups, the Participation Space Studies revealed the work of other people in local democracy: people involved in community councils, hyperlocal media, conservation, and organising community events. These people contribute a layer of work between local government and the public, e.g. through monitoring, investigating and publicising planning applications. Along with the work of case-study participants, these

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<sup>65</sup> Jisc: <http://www.jisc.ac.uk/> and Knowledge Hub: <https://knowledgehub.local.gov.uk/>

<sup>66</sup> <https://help.riseup.net/>

people's work needs to be recognised for its contribution to civic society and as the co-production of democracy.

Given that social media are playing a powerful role in democracy, the role of democratic values in social media is a shared concern. Popular social media like Facebook and Twitter are currently struggling to maintain their workability as infrastructures, as they continually scale-up (cf. Bowker and Star, 1999). In this context, governing bodies, such as national governments and the EU, need to guide the evolution of social media by creating workable protections for members: protections which address equality, privacy, access, and safety. These workable protections need to be informed by sociotechnical research.

Finally, all those working to improve their communities and promote democratic change need to recognise the importance of emotion and symbolism in engagement, especially via online media (Papacharissi, 2014). Images can package information, emotion, identity, and aspirations, in a format aligned to contemporary social media use: images are eye-catching and easy to share; they support discussion. This aspect of democratic engagement needs to be considered seriously in any plans to increase participation. Case-study participants were motivated by emotion, which was aligned to their rational ideas about improving their communities, and they often found their work rewarding. However, top-down initiatives need to be careful about exploiting people's emotions in order to encourage involvement, as they have a strong record of disappointing participants (e.g. Arnstein, 1969; Brodie et al, 2011).

## **9.6 Conclusions**

1. The participation space concept effectively supports the parallel investigation of the diverse social and technical contexts of grassroots democracy.
2. Internet technologies are integral to the case-study groups' participation, illustrating the mutual shaping relationship between technology and democracy.
3. The characteristics of participation spaces that influence their use for participation may be described as boundaries, inhabitants, access, ownership, and cost.
4. Participation spaces and infrastructures are used together and shared with other groups.
5. Most grassroots participation is non-public.

6. Digital images are practical and influential vehicles for emotion and information within participation.
7. Social media can be boundary objects.
8. Using diagrams, including timelines, is the key to modelling families of STINs.

This research was conceived in a climate in which there were concerns about the health of participatory democracy (e.g. Dalton, 2004; Fox, Korriss and Palmer, 2012; Fox and Korriss, 2013; Ostling, 2010; Wilks-Heeg, Blick and Crone, 2012), while support for democratic values increased (Dalton, 2004). This research has revealed the work of three groups whose participation creates democracy from the ground up; their activities supported, illustrated, and shared by their use of technology. If participatory democracy is to blossom, this pattern needs to be repeated and supported throughout society. This thesis contributes evidence, models, and suggestions to understand and facilitate grassroots participation.



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