

# Non-public eParticipation in Social Media Spaces

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## ABSTRACT

This paper focuses on the importance of non-public social media spaces in contemporary democratic participation at the grassroots level, based on case studies of citizen-led, community and activist groups. The research pilots the concept of *participation spaces* to reify online and offline contexts where people participate in democracy. Participation spaces include social media presences, websites, blogs, email, paper media, and physical spaces. This approach enables the parallel study of diverse spaces (more or less public; on and offline). Participation spaces were investigated across three local groups, through interviews and participant observation; then modelled as Socio-Technical Interaction Networks (STINs) [1].

This research provides an alternative and richer picture of social media use, within eParticipation, to studies solely based on public Internet content, such as data sets of tweets. In the participation spaces studies most communication takes place in non-public contexts, such as closed Facebook groups, email, and face-to-face meetings. Non-public social media spaces are particularly effective in supporting collaboration between people from diverse social groups. These spaces can be understood as boundary objects [2] and play strong roles in democracy.

## CCS Concepts

• **Human-centered computing** → **Collaborative and social computing** → **Empirical studies in collaborative and social computing**.

## Keywords

Social media, eParticipation, social informatics, democracy

## 1. INTRODUCTION

Most of the everyday politics at the heart of our democracies takes place outside of formal, traditional definitions of the political [3, 4, 5]; participation is not restricted to institutional locations, or to

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prescribed democratic actions, such as voting or contacting elected representatives. Neither is participation restricted to public contexts. Political issues are discussed and public events are organised in both public and private spaces and this is paralleled online. For example, emails are sent to personal (private) accounts to promote public e-petitions [6] and activists organise via non-public Facebook groups [7]. This paper focuses on similar activities taking place on non-public social media, comparing them to activities in other spaces.

The research was designed to contribute to understandings 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 [8]. The research focused on the relationship between activities and contexts in citizen-led participation. These contexts are described as *participation spaces*.

Participation spaces are defined by the activities that take place in them, specifically participation in democracy. In this research, *participation* includes all the activities that people undertake to achieve the aims of their group (to improve their communities and local environments). Participation spaces are sociotechnical systems: *assemblages* of heterogeneous elements, with relevant histories and trajectories of development and use (see below, Section 2.1). Each participation space is a composite of people, artefacts, processes, and expectations of behaviour. People are essential actors: communicating, meeting, organising, and creating content; as well as maintaining the social and physical structures that define the space. Artefacts may include digital technologies, such as devices, software, and infrastructure. Artefacts may also include non-digital objects, such as windows and paper. People are the source of artefacts and bring them together to create participation spaces. Online participation spaces include social media presences, email, websites, and blogs. Offline participation spaces include physical spaces where people meet, and paper media. The boundaries of a participation space may be physical, virtual, social, and/or temporal; they are likely to be mutable, permeable and subjective.

The term *non-public* is adopted from Nonnecke, Andrews, and Preece, who use it to describe lurkers in discussion forums [9]. Non-public is used here to reflect the uncertain privacy levels of online communications, where public and private are not binaries. Private and public are experienced differently via Internet technologies like email and social media [10], due to digital media's persistence, replicability, and "searchability" [11]. This is particularly relevant for social media, where it can be difficult for members to judge how public their content is, especially as this may change over time.

## 2. LITERATURE REVIEW

### 2.1 Sociotechnical Assemblages

Participation spaces encapsulate a paradigm of technology as systems and assemblages, created and experienced in context. This approach is particularly useful for studying social media, because of the diverse factors influencing each person's experience of social media on each device. Deleuze and Guattari's concept of the *assemblage* [12] has been adopted by people studying technology use, in order to describe technology as a composite of diverse elements, rather than an atomistic device or an abstract force. Suchman describes configurations of humans and artefacts, seemingly acting together, as *sociotechnical assemblages* [13]. At each moment in the present, one or other element seems to have agency. However, agency is not a property of an individual element, but an effect of interaction. Deleuze and Guattari's connotation holds the sense of the French meaning of *agencement*, which concerns the process of assembling rather than any static arrangement [14]. Historical activities and social practices influence the nature of both social and technical elements. The differences and boundaries between humans and machines are continually shifting; boundaries exist as they are enacted [15].

Orlikowski emphasises this sense of dynamism in her discussion of *sociomaterial assemblages* [16]. 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, including the search term, change over time.

Sociotechnical assemblages may also be understood using the metaphor of a *dynamic network*, as in Actor Network Theory (ANT) [17, 18]. 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 [17] and power relations [18]. Before the World Wide Web, Kling and Scacchi had been using a *web model* to analyse technology. This model encompasses, with digital technologies, the activities and preferences of the people and groups involved, and the wider context [19]. Later, Kling, McKim and King adopted the network metaphor for their analytic framework, the Socio-Technical Interaction Network (STIN) [1]; this inherits the web model's concerns. STIN is both a metaphor to understand a computer system as a network of heterogeneous elements and a framework for analysing the system [20]. In this research, each participation space, including social media, is conceptualised as a STIN (Section 3.2, below).

It is also useful to consider sociotechnical assemblages, such as social media presences, in terms of *infrastructure* [21], because this highlights the combination of transparent and visible elements, distributed across locales, and the challenge of identifying boundaries. Social media spaces tend to be experienced as merged or amalgamated, as posts from different sources are read in individual's timelines. Hine advises Internet researchers to craft fields or objects of study to suit their strategic objectives [22]. Following Hine's advice, this research uses the participation spaces concept to bound sociotechnical assemblages (and parts of infrastructure) in order to study them. The strategic

objective here is to understand the relationship between activities and contexts in contemporary, citizen-led democracy.

### 2.2 The Public Sphere

The potential role of social media in democracy has been discussed in terms of Habermas' public sphere [e.g., 23]. 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 [24]. 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. This model of deliberative democracy was used in early eDemocracy and eParticipation research [e.g., 25] and is still a prominent framework for discussing democratic practices in online spaces [e.g., 26, 4, 27]. Authors who focus on the rational deliberative element of the public sphere criticise Habermas' model for not reflecting the way that people discuss politics in real life, but rather emphasising exclusive deliberation [28], and rational discussion, rather than affective, especially humorous, communication [29, 5]. However, authors who focus on the spatial and social elements of the public sphere, adapt this ideal to situate people talking about politics in everyday contexts as an essential component of democracy [e.g., 30, 4]. Social media may be aligned with the example Habermas provides of 18th Century coffee houses: public locations, where private people came together, reading and discussing news journals.

People come together in online spaces, such as social media or discussion forums, to discuss everyday topics, including hobbies, traffic, and TV shows. Graham identifies political deliberation in online forums, such as *Money Saving Expert*, and reality TV discussion boards, such as those devoted to *Wife Swap* [30]. Shklovski and Valtysson [31] find publics coalescing around non-political discussions on online forums in Kazakhstan. For example, people who discussed cars and roads recognised and helped each other at the roadside, and could form a pressure group for improving roads. Publics that form around depoliticised content are particularly important in countries, like Kazakhstan, where online speech is heavily monitored. Baym and boyd suggest that "socially-mediated publicness may be a source of support and empowerment" [10, p. 325].

Wright suggests that Oldenburg's Third Place model is more appropriate for these contexts than Habermas' Public Sphere [32, 5]. 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. He was reluctant to identify online communities in this way, but Rheingold recognises the community he was involved in, *the Well*, as an online third place [33].

### 2.3 Observation and Ownership

The participation space concept supports the understanding of social media contexts through the criteria which guide behaviour in offline spaces, such as boundaries and inhabitants. Goffman uses the theatre as a metaphor to describe the relationship between space and behaviour, dividing our social experiences into two, non-exclusive, regions [34]. The front region, where performance is the focus, is observed: politeness and decorum are generally expected. Backstage, where performers prepare and/or relax, is observed only by the team; here, a wider, more casual range of

behaviour is expected. In online situations, especially social media, the level of observation (audience) is difficult to apprehend, especially over time; it may not be possible to determine “who is out there and when” [10, p. 323]. Boyd emphasises the critical issue of power, through position within networks of observation and interaction [11]; those understanding the privacy/surveillance level of a situation are empowered to act confidently and appropriately. However, 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; and the Open Graph protocol can track Facebook members across seemingly unrelated websites<sup>1</sup> [14].

Goffman’s regions metaphor and boyd’s emphasis on control are reflected in Cornwall’s characterisation of participation according to the ownership and control of the space. *Invited spaces* are participation initiatives organised by authorities or institutions [8]. 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” [35, p. 11]. Cornwall contrasts these with initiatives, which are created and managed by citizens. *Created spaces* support grassroots or bottom-up participation; citizens control the topics, activities, and communication. Hassan echoes this dual conceptualisation, specifically referring to the Scottish context, in his *unspace* and *fuzzy, messy spaces* [36, p. 64-66]. *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.

## 2.4 Invisible Work and Informational Work

Within participation spaces, people are considered as constitutive parts of technology. People create, maintain, and potentially moderate, content. These essential tasks may not be obvious or appreciated, especially in terms of work. Away from their shiny public headquarters, Facebook and Apple outsource content moderation to where labour is cheap [37]. 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 [38]. 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., 39]. For example, if infrastructure is invisible until it breaks down [21], day-to-day maintenance may be invisible work.

Information communication technologies (ICTs) require *informational work* [40]. For social media, this includes creating and moderating content. 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 [40, p. 159]. 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 [41].

In studies focusing on ICTs, invisible work is often preparatory, behind the scenes work [34, 39, p. 9], such as organisation and managing cooperation. These are central tasks in participation [7, 41]. Mercea looks at the use of Facebook to support a Climate Camp and an Occupy protest group [7]. 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.

Participation spaces, such as social media presences, are sociotechnical assemblages where participation takes place. They may support political talk and even constitute the public sphere, without being designated as political spaces. People’s behaviour in the space is likely to be influenced by who owns or controls the space, and by the space’s boundaries and potential audience. However, the boundaries of social media spaces are mutable and subjective, making it difficult to know who can observe the space at any time; potential content-creators are unlikely to know who their audience are [10]. The value of social media is created by the contributions and collaborations of users [42]. However, the work involved in creating this content may not be particularly visible and is likely to be unpaid. These factors influence and explain people’s use of social media, and other participation spaces, within democracy. The next section describes the study of participation spaces within the context of three case study groups.

## 3. METHODOLOGY

### 3.1 Case Studies

The research set out to answer the following 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?

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. Case Study 1 concerned a local group campaigning against cuts and privatisation; the second case study group were working to improve Hill Village<sup>2</sup>; the third group were campaigning against the commercial development of a council building which was joined to the local primary school.

The methodology was influenced by ethnography: it emphasised in situ investigation and understanding both participation and technology according to the activities, values, and motivations of the people involved. Data was gathered through interviews and *participant observation* [43, 44], on and offline. Offline, for example, the researcher helped to distribute flyers at a protest march; online, the researcher followed social media accounts and (where possible) joined closed groups, participating by *liking* (and occasionally creating) Facebook posts and retweeting tweets. Participation spaces, such as social media groups, pages and accounts, were the fields for in situ observation, as well as topics within interviews, and the units of analysis. Data also included

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<sup>1</sup> i.e., websites which use certain plugins.

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<sup>2</sup> Case study names are pseudonymous.

materials created by people involved in the groups and associated campaigns, such as web content, news articles, comments on planning applications, and paper flyers. Data was predominantly collected in 2013.

The ethical approach centred on anonymisation, consent, transparency and respect. All case study names (participants, groups, locations) were anonymised and active participants gave their informed consent. Policies were developed to protect other people who were observed in case study contexts, such as offline meetings and online groups. For transparency, the researcher lightly participated in online contexts, rather than lurking. Online fieldwork, like local fieldwork, brings ethical challenges in terms of the participants' social networks potentially overlapping with those of the researcher, during the case studies or in the future: the boundaries between fieldwork and the rest of the researcher's life are permeable. Beaulieu and Estalella describe the practicalities and ethics of online fieldwork, in terms of contiguity and traceability [45]. For example, the anonymisation of participants' online posts needs to account for the traceability of Internet content via search engines [cf. 11, p. 10]. 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 [45]. This is reflected in this thesis by adopting Nonnecke et al.'s term 'non-public' [9]. The researcher could not join Case Study 3's closed Parent Council (PC) Facebook Group, as the group's leader was concerned about access to historic, as well as recent posts: current group members could not give this retroactive consent. This was highlighted for Case Study 3 as the research began towards the end of their campaign. Thus the STIN of the PC Facebook Group is based on interview data. Finally, as the studies centre on context-rich data, the case-study groups would potentially be recognisable to local people. These fieldwork contexts highlight the researcher's responsibility to the participants to be respectful and transparent, in research outputs, as well as data gathering.

Participation spaces were identified according to activities: they were places where people were acting to further the aims of their groups (to improve their communities and local environments). These activities primarily took the form of communication. Where groups took direct action, such as clearing woodland and building paths, this was organised by communication in participation spaces. From the participation spaces identified, nineteen were analysed using the STIN framework: six for Case Studies 1 and 3 (the campaigners) and seven for Case Study 2, the community group. These participation spaces included the following public social media spaces: two Facebook pages and two Twitter accounts; as well as three blogs, two of which are integrated with Facebook and Twitter accounts. The two non-public social media participation spaces were closed Facebook groups.

### 3.2 Socio-Technical Interaction Networks (STINs)

The participation spaces were modelled, using the data collected, as Socio-Technical Interaction Networks (STINs), based on Kling, McKim, and King's framework [1]. 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, the flow of resources, wider influences, and the trajectories of implementation, including historic dimensions. The framework

takes the form of eight heuristics – 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. The following list of heuristics [from 1, p. 57] is annotated in parentheses to indicate additional interpretations to the context of participation.

1. Identify interactors (actors and roles).
2. Identify core interactor groups.
3. Identify incentive structures (motivations).
4. Identify excluded actors and undesired interactions (but also helpful interactions).
5. Identify existing communications systems and their relationships to this STIN (meetings, media, networks, other participation spaces)
6. Identify resource flows (who pays, who is paid, and fundraising).
7. Map architectural choice points (technological features or social arrangements chosen in the past, leading to the current arrangements).
8. Describe viable configurations and trade-offs.

Each participation space was modelled by responding to the heuristics in text and further exploring certain elements in diagrams. For example, each space was drawn as a map of *interactors*. Figure 1 shows a subsection of the *interactors diagram* for one of the Case Study 3 participation spaces: a closed Facebook group, owned by the primary school's Parent Council and an important part of the campaign. These diagrams supported the analysis process and provided an interface to the models. Interactors diagrams were used in workshops with case study participants, where they were vehicles to share research outcomes and get feedback on the models of participation spaces.

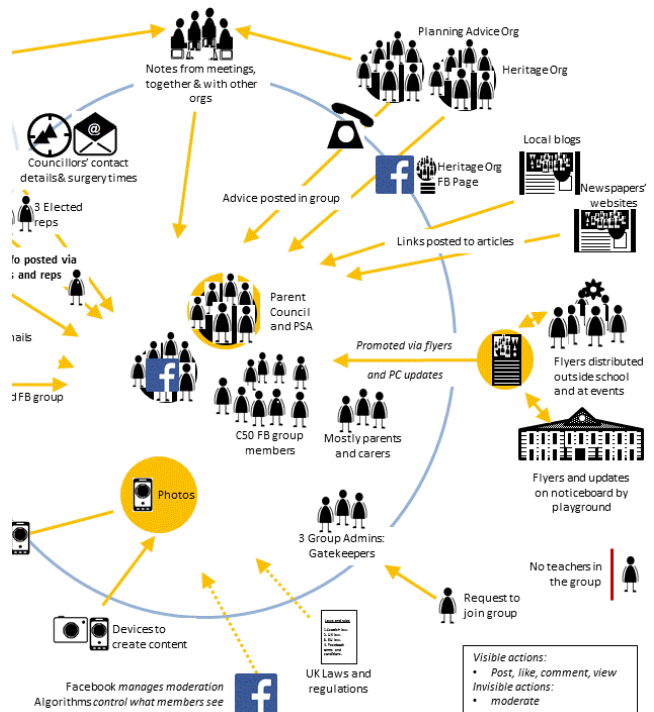


Figure 1: Section of interactors diagram for PC Facebook group (CS3). © Ella Taylor-Smith.

Nineteen models of participation spaces were created, consisting of structured descriptions and diagrams. These models were further analysed to answer the research questions and identify the findings. The participation spaces 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, especially social media, where online and offline contexts are integrated [22].

## 4. FINDINGS

### 4.1 Non-public Social Media

The STIN models record the activities, actors, and influences, especially resources, for each participation space. The models also record exclusions and links between spaces. The investigation revealed that non-public Internet technologies, especially Facebook groups and email, were integral to each group's participation. Their use was integrated with other online and offline technologies, spaces, and events. Participants' choice of technologies can be understood in spatial terms: boundaries, inhabitants, access, ownership, and cost.

#### 4.1.1 Closed Facebook Groups

Closed Facebook groups were among the most important and well-used spaces in Case Studies 2 and 3. Case Study 2 benefited from the existence of a busy community Facebook group: around 20% of Hill Village were members; many people posted or commented on diverse topics, sometimes leading to discussions. The Case Study 2 group used the Hill Facebook group to fundraise, to involve people in events, to share information, and as an insight into the community's concerns. The Facebook group integrated the *improvement group* into Hill Village and vice versa.

Case Study 3 campaigners revived a dormant Parent Council (PC) Facebook group (Figure 1) by inviting parents and carers to join it, to support the campaign against the planning application for the development<sup>3</sup>. The campaigners' publicity materials, such as paper flyers, invited people to join the group. The PC Facebook group enabled the campaigners to gather information and to develop strategies to lead the objections. For example, campaigners learned about the planning process and posted model objections on the PC Facebook group, in order to help other people craft valid objections to the council; they shared the contact details and surgery times of relevant councillors on the group. Members shared photos that emotively illustrated the problems with the planning application. One photo in particular, played a prominent role in the campaign. This photo shows three young girls, smiling and playing in the primary school playground. The girls are right in front of a window in the building that developers wanted to convert into studio flats. A man has been photo-shopped into this window to illustrate the proximity of the building (and its potential residents) to the playground (and children). This obviously photo-shopped man is shirtless and smoking out of his window, about a metre behind the girls. This photo was singled out by the local MSP on the PC Facebook group: "[Mr MSP] is a member of that group, and he said 'You need to use that photograph. You absolutely need to use it, because it just...shows you'" (campaigner, interview). The parents used this photo in their presentation to the Planning

Committee; this photo seemed to turn the tide of the Planning Committee hearing more than any words; the Committee rejected the planning application. The Facebook format enabled people to comment on photos, whereas people in the parallel email group were dissuaded from commenting as this would add to email overload. The Facebook group included parents and carers, and some elected representatives, but no teachers; teachers are employed by the council.

#### 4.1.2 Deliberation and Preparation

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. For example, a few Case Study 3 parents taught themselves about the planning system and shared their insights in the PC Facebook group. The Facebook group also included local councillors and they contributed to this learning. This preparation fed into the campaigners' objections; both those submitted within the planning objection period and the campaigners' live presentation to the Planning Committee. Campaigners also used Facebook to contact other local groups and learn from their experience or get them involved. In this case study, these activities on social media were paralleled in an email list. These two participation spaces enabled the collaboration of over 70 people. For Case Study 1, learning and preparation activities took place at their regular twice-monthly meetings. In all three case studies, deliberation primarily took the form of non-public discussion and preparation, rather than public rhetoric. For each group, it was important that this was non-public. Groups wanted to establish their shared opinions and strategies amongst themselves: Hill residents could be more open about village problems when discussing these amongst themselves; the primary school campaigners did not want the developers to know their objection strategy and be prepared to counter their points at the Planning Committee hearing.

Activities in public participation spaces tended to be the outcomes of this extensive organisation and preparation. Public events and materials were organised in non-public spaces, especially the Facebook groups and by email. These were then promoted in public social media spaces, such as Facebook pages and Twitter, and public offline spaces. The iceberg metaphor emphasises the ratio of a large volume of non-public preparation to a considerably smaller volume of public outputs: most of the participants' work is invisible [38, 39]. Most of this invisible work is informational work: translating and transposing information between contexts [40]. Informational work is at the heart of both participation [41] and maintaining information infrastructures [40]. Where the case study participants were trying to influence their local council, e.g., re planning applications in Case Studies 2 and 3, they were pitted against professionals, who were doing similar information work, within their salaried work time.

The STIN studies highlight the volume and complexity of this informational work for case study participants. In this context, participants struggle to take on the additional work of promoting emergent participation spaces, such as Twitter<sup>4</sup>. Although public

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<sup>3</sup> Data about this Facebook group was gathered via interviews and documents, rather than participant observation.

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<sup>4</sup> While several participants had been using Twitter for a few years, few were regular tweeters, and most were consciously learning about the tool.

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. Case Study groups 1 and 2 have public Facebook pages and Twitter accounts, but lack the time to promote them; Case Study 3 did not manage to set up public online presences, but instead relied on local and hyperlocal media. None of the groups were using other popular social media, such as *WhatsApp* or *YouTube*.

#### 4.1.3 Boundaries, Ownership and Resources

Reflecting the spatial metaphor, the groups' use of non-public social media can be understood in terms of: boundaries, inhabitants, access, ownership, and cost. The most used participation spaces were those with identifiable 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 (potential) *audience* were. The Facebook groups also provide information about inhabitants because people can see who is in the group and some information is available about each member. 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 their 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 groups' boundaries and used the groups reluctantly, if at all. These participants felt the boundaries might be porous; one parent worried about potential boundary-breaches across areas of his life.

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 Internet access, rather than for each communicative act: the "parameters of cost move from the foreground to the background" [46, p. 126]. This means potential exclusion for those who cannot afford infrastructural costs like Internet access. This cost may be due to lack of skills or confidence, rather than lack of financial resources.

In the long term, it is not clear how viable or ethical it is to rely on free social media, supported by advertising. However, this financial set up makes it easy for people to feel a shared ownership of the space. Case Study 2 participants called the Hill Facebook group the *Community* Facebook group, and emphasised that it was not owned by the improvement organisation. Across all the participation spaces, where ownership is shared more people add more content, making the space more current and useful so that more people visit more often. Where participation spaces are predominantly controlled by one person (Twitter accounts, blogs, websites, broadcast email lists), responsibility for content falls to that person. This content may be good quality, but is less current, diverse, and engaging.

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" (campaigner, interview). Facebook spaces are continually recreated by software [47, p. 16], responding to the activities of members. Papacharissi describes how online spaces are not just multiplied, "but simultaneously fragmented and reassembled into structures that attain greater reflexivity" [27, p. 13]. Cornwall's ideas about invited and created participation spaces encapsulate these issues [8]. 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.

## 4.2 Social Media as Boundary Objects

Star and Griesemer identify boundary objects as information artefacts which support cooperation between groups from different social worlds [2]. 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 (even deliberating) ways to improve the village. Both Facebook groups support their respective 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. These social motives drive Facebook members to visit, interact, and potentially post: "But on the Facebook site, I really see that every day. Because [laughing] I'm a Facebooker!" (Hill resident, interview). Others dislike Facebook, distrusting its commercial model and privacy settings. These people tend to be uneasy with its social elements, characterising interactions 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. Essentially, 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 in order to keep up with specific groups, especially the Hill Facebook group and the Parent Council group. Two of these reluctant users even moderate their groups. 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: Facebook's social characteristics, combined with its large membership, provide the robust identity to bridge these factors [2].

Facebook is predominantly a social space. Social motives bring people to the site, where they read and post useful and social information. This information draws in the people who are

reluctant to socialise online. In this way the space reflects the non-political spaces described above (Section 2.2), which support political discussions and, potentially, the public sphere. Social opportunities and customs prevalent on Facebook are also essential to the participants working together as groups, because they help to build community and solidarity. The anti-cuts group (Case Study 1) meet twice a month, offline. This meeting is at the heart of the group as a community: people stay involved with the group because they are friendly. For the other two case study communities, this kind of interaction also (even mostly) takes place online, in their Facebook groups.

## 5. CONCLUSION AND REFLECTIONS

This paper reports research into the use of Internet technologies by citizen-led groups, based on studying and working with these groups in context. The group context resembles a culture that the researcher gradually comprehends [43]. The path of data gathering and analysis travels from the situated activities of people associated with the case study groups to the use of participation spaces and technologies. This provides information that may be missing from approaches travelling in the opposite direction, for example from Internet content, such as public 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 vital contextual information if available public online data is the sole input. For example, Quinlan, Shephard and Paterson's content analysis of public BBC online discussion forums, about the Scottish independence referendum [48], draws some conclusions about online deliberation that may not apply in non-public online contexts, such as individuals' Facebook pages.

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 [49], whereas 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 [7]. Wright suggests that quantitative content analysis may fail to pick up crucial nuances, such as humour, which is often central to discussions about politics, and key to the smooth running of conversations online [5, p. 15]. 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.

While Facebook clearly supports some democratic activities, its privacy options and the personalisation of content are potentially in conflict with democracy. Trottier and Fuchs [23] and van Dijck and Poell [50] realise that social media are potentially transformative technologies for activism, with both positive and worryingly negative consequences. So these academics create structures for investigating social media in this context. Considering Facebook as a boundary object provides another structure to explore the relationship between social media and democracy.

This paper discusses the importance of non-public online spaces, especially closed Facebook groups, to three local, grassroots, community or activist groups. The research reveals their work (and participation) to be largely organisational and informational –preparation for public activities. It also reveals the volume of

their work, beyond public participation. This should influence both our understanding of participation and of the contemporary role of social media in democracy.

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