

Citizen Social Science: a critical investigation

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Abstract

Citizen social science is an emerging, multi-sited, socially structured practice for social research. As an innovative form of coproduction and participatory research, it involves engaging citizens in conducting social research. To date, when citizen social science has been theorised, the focus has usually only been on its potential as method: as a form of crowd-sourced data collection, and in a context of increasing technological advancements in, and possibilities for, data gathering. Just like citizen science, which involves the public in large-scale collective volunteer science projects, citizen social science presents both a challenge and an opportunity. It can challenge the ways in which social science research is undertaken, raising questions around who can collect data, who can analyse it, and how it can be used. The possibilities of citizen social science bring into focus issues of data quality, diverging motivations, claims of expertise and skills, and the relationship between data collection, analytical frameworks, and social realities. There is the potential for the flattening of hierarchies in the social research process as knowledge is made together.

The thesis seeks to understand how citizen social science works in practice. It reports on three social science probes using citizen social science-based approaches: i) a secondary analysis of Mass Observation Archive data, ii) a study involving citizens reporting observations of empty houses, and iii) a community based history project about perceptions of the changing nature of a local area. The research sets out three key facets of citizen social science: the challenges for research design and execution, the ethical issues raised, and the potential for data use. The thesis elaborates on them as new evidence of the practices, processes and challenges of citizen social science.

The findings suggest that citizen social science-based methods can be disruptively transformative: for the individual participant in terms of how they can become engaged with the issues raised by the research; for the discipline, in the way that it allows seeming 'non-experts' to be involved in the analysis of data, as well as its generation; and, moreover policy makers are beginning to take such data seriously. Overall, the research highlights how citizen social science can be an exercise in the collective sociological imagination and collective experimentation. It presents an opportunity for the transformation of social science research, beyond just an instrumental methodological innovation, but there are challenges and limitations.

Declaration

I, Alexandra Albert, declare that that no portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Chapter 1: Introduction

Let's create a nation of social scientists! Social scientists must create a culture in which individuals regularly observe, analyse and interpret their own data.

Geoff Mulgan, 29th September 2017, THE Opinion

Why aren't we asking people as part of citizen sociology to go out and collect ethnographic information, like images or sounds that they can then add together to develop a data set that could be interesting for sociological analysis? We could also ask the public to help analyse the data.

Deborah Lupton, 2nd February 2016, International Journal of Social Research
Methodology podcast

It is odd that the field in which citizenship is so actively under scrutiny does not involve citizens *en masse* in the interpretations it produces.

Gerben Moerman, 3rd January 2015, Time for citizen science in the social sciences,
Social Theory Applied

1.1 What is citizen social science?

This thesis investigates citizen social science, which is an emerging, multi-sited, socially structured practice for social research. As an innovative form of coproduction and action based research, it involves engaging volunteer citizens in conducting social research. To date, when citizen social science has been theorised, the focus has usually been on its potential as method: as a form of crowd-sourced data collection, and in a context of increasing technological advancements in, and possibilities for, data gathering. Citizen social science presents both a challenge and an opportunity to social science research. It challenges the ways in which social science research is undertaken, raising questions around who can collect data, who can analyse it, and

how it can be used. The possibilities of citizen social science can entail questions about data quality, diverging motivations, claims to expertise and power, purpose and skill. It brings into focus issues of the relationship between data collection, analytical frameworks, and social realities. There is the potential for a flattening of hierarchies in the social research process as knowledge is made together.

In many ways, citizen social science is not so dissimilar from community based participatory research (Purdam, 2014; Richardson, 2014; Goodson and Phillimore, 2012). Citizen social science methods have the potential to generate valuable data and add to the tool kit of social science methods, but as with all methods there are challenges and limitations, particularly around issues of response rates, public engagement, anonymity, ethics, data quality and data 'use'. Citizen social science raises important questions about the methods of participation and data collection in the social sciences, as well as our conceptualisations of the social. However, what constitutes the public, citizens, the social and social science are extremely complex and divergent questions. This thesis explores the contested enactments of these phenomena in conceptual debates about and emergent practices of citizen social science.

1.2 Why now?

Citizen social science appears to be an emergent phenomenon; this thesis argues it has a particular practical, ethical and material history that needs to be acknowledged. More specifically, four key issues stand out as contextually relevant to the study of citizen social science.

Firstly, the rise of interest in, and focus on, the citizen science movement, which can be charted predominantly in the natural and environmental sciences, has raised questions about the role of the public in participating in scientific research. Much interest and attention has been given to the huge 'innovative potential for knowledge production' (Heiss and Matthes, 2017, p. 23) of citizen science to generate data, or gain access to previously hard-to-obtain data, and to enable citizens to contribute to doing science and solving scientific problems. The 2014 European Union White Paper

on Citizen Science (Serrano Sanz et al., 2014) stated that citizen science encompasses a wide range of activities carried out by several actors at multiple levels. They found massive and occasional virtual interactions on a global scale as well as regular, proactive and continuous involvement in local environments. The authors also highlighted the fact that there is no single definition of citizen science but rather 'a series of definitions that reveal the dynamics of this research approach which is continually evolving and implies new collaborative activities and shared objectives between the main stakeholder groups' (Serrano Sanz et al., 2014, p.11). There are different theories as to why we are currently seeing a resurgence of interest in citizen science. Haklay (2013), for example, suggests this could be due to a current increase in the value of scientific knowledge and higher educational attainment more broadly. However, while the history of the emergence and genealogies of citizen science is an interesting and important topic, today, the very practices and challenges of citizen science, and specifically citizen social science, are a more pressing issue for inquiry, as new generations of researchers adopt these methods.

Secondly, the locations in which we might find social science methods have multiplied (Elliot and Purdam, 2015; Savage, 2013). There is a friction between, on the one hand, calls for a more reflexive modernization (Beck, 1992), and, on the other hand, a seemingly endless desire for bigger and better and faster data in real time. The concept of reflexive modernization suggests that traditional objective accounts of science should be replaced by a more inclusive science that institutionalizes self-doubt, self-interrogation and self-reflexivity (Bäckstrand, 2003). These calls sit alongside a renewed interest in academic debates around public sociology (Burawoy, 2005), and the social shaping of data infrastructures (Gray, 2016). Social research methods are being invented and circulated outside of the academy, something that has led some to argue that social research methods are being democratised (Adkins and Lury, 2009). Research methods and the social are both changing; the social is being remade in those new methods.

Thirdly, in recent years, social scientists have proposed that their disciplines may be undergoing a transformation, as the resources and techniques of social research are being redistributed among a variety of agencies inside and outside the university

(Marres, 2012; Adkins and Lury, 2009; Whatmore, 2009; Savage and Burrows, 2007). Whether or not this is a new phenomenon, or has in many ways always been the case (Callon et al., 2009), the question remains of how to come to terms with the reconfiguration of research cultures and the active participation of social actors in social research (Marres, 2012). One way to do so is to think more creatively about method and what it might help us to achieve (Gane, 2012). Gane draws on Mills' (1959) work on the sociological imagination as a way out of the situation of 'knowing capitalism' (Thrift, 2005) that Savage and Burrows (2007) discuss in their article on the coming crisis of empirical sociology. In many ways, this is the premise on which this thesis is based, to think creatively about method and to explore the potential of citizen social science for social research.

Lastly, it is possible to chart the emergence of citizen social science in the context of the advent of critical data studies, analysis of online participation (Cantijoch et al., 2015; Gibson and Cantijoch, 2013), civic data initiatives and the participatory turn. The self-tracking movement (Nafus and Sherman, 2014) or the quantified-self movement (Lupton, 2016), in addition to work around citizen sensing (Gabrys, 2014) and participatory sensing (Nold, 2017), are all directly related to the context in which citizen social science emerges. The changing power relations between citizen, data and the State, make for new responsibilities and opportunities for participation in data generation and interpretation in the neo-liberal context (Stewart and Lucio, 2017). Citizen social science prompts many questions about the state of social science methods today and our understanding of the social and how it is made, as well as affording capacities to collect new data, to document the undocumented, and to tackle intractable social issues.

1.3 Could citizen social science transform social science research?

The work of this thesis builds on and contributes to the existing literature on citizen social science, by helping to conceptualise the emergent phenomenon and to explore its potential, as well as its practical realities. The thesis makes use of facet methodology (Mason, 2011), and its gemstone metaphor, where the facets allow the key qualities of the stone to shine – with the stone it is its purity, and capacity to

refract light – with citizen social science it is a hidden potential to transform the epistemological politics of social science.

Citizens now have the possibility to be fieldworkers of their own lives. This can be extended to examine the value of citizens collecting data on the world around them for social science research (Purdam, 2014). Professional social science does much innovative work on methods, but until recently the reasons for the transformation in the nature and location of social science methods and their broader sociological effects have been of marginal interest (Savage and Burrows, 2007). The notion of citizen social science raises questions from the outset about what data is, who can collect it and to what uses it can be put.

This is not a problem, so much as an exploration of whether the adoption of social research techniques by a variety of social actors can be made to work *for* rather than *against* social research, to renew it and reconfigure it (Marres, 2012; my emphasis). The aim of studying the practices and processes of citizen social science is to explore how ‘the circulation of social research techniques across social life can be rendered productive for social science’ (Lury and Wakeford, 2012, p.16-17). Furthermore, the thesis aims to engage critically with the method of citizen social science and the affordances and capacities mobilised in and through it, and to resist a purely instrumental framing Savage (2013); this is the overall aim of the work of this thesis.

In many ways citizen social science can be seen to emerge from both the rise of citizen science, and a period of methodological experimentation and data politics surrounding the issues of causality and description in the natural sciences (Savage, 2016). This thesis conceptualises and frames citizen social science in the context of a renewal of interest in the politics of method in the social sciences (Lury and Wakeford, 2012; Büscher, Urry and Witchger, 2010; Adkins and Lury, 2009; Rabinow and Marcus, 2009; Savage and Burrows, 2007; Thrift, 2005). This thesis seeks to bring social science methods to bear on the emergent phenomenon of citizen social science to explore its potential for social science research.

Citizen social science appears to occupy an unusual place in relation to the social sciences – in terms of justifying the role of the social sciences, citizen social science is often brought back in as a central defence of the discipline, precisely because of how it reinstates the human in the research (and data) process. But citizen social science is marginalised and ‘othered’ by those who then need to defend the importance and value of social science. Perhaps this is one contributing factor to it not being given much attention in the literature previously; another may be the significant body of work being undertaken on participatory research, in particular Participatory Action Research (PAR) and coproduction.

1.4 Positioning the research

Being accountable for research strategies and methods orients researchers to the communities they seek to be part of and the conversations they want to contribute to. One starting point is the ways that researchers conceptualize the world and what it is made up of (ontology) and how the world, or put another way, the object of research, can be known (epistemology) (Kimbell, 2013). In this way, clarifying the epistemological positioning of the thesis from the outset, allows for a clearer presentation of the work of the thesis.

Since citizen social science is emergent and fast evolving, a multi-sited practice, and a socially structured phenomenon, it is necessary to clearly position and, as far as possible, set the boundaries of the research presented in the thesis. The larger part of the contextualising work of the thesis is undertaken in the review of the literature in chapter 2, and in the scoping work presented in chapter 3. However, a study of citizen social science raises challenges as the approach can span different ways of seeing the social world, and within that, different understandings of the social, of data, and of social research methods.

Much attention is being, and has been given, to the proliferation of instruments and of practices of social analysis across social life in the form of social media platforms, digital analytics, and the so-called internet of things, and so on (Nold, 2017; Marres, 2014; Gabrys, 2014; Gibson and Cantijoch, 2013). Social actors, practices and events

are increasingly and explicitly oriented towards social analysis, and are actively involved in it. This raises many questions about the ways in which technology participates in the representation and doing of 'social life'. Marres (2014) charts the deep-seated oppositions between science and culture, and between technology and democracy, but also the ways in which digital culture and digital practices cut across and unsettle these distinctions. Engaging with technology and practicing culture are becoming more and more entangled. 'Expert' practices of data capture, analysis and visualisation are closely associated with citizen initiatives focused on inclusion, advocacy and cultural expression.

This thesis explores the broader conceptualisation and potential of citizen social science as an idea and practice, rather than through the devices, per se, which might enable its emergence. The thesis draws on the position of the 'Social Life of Methods' (Savage, 2013; Law et al., 2011) that sees the questions of method as 'raising fundamental theoretical questions about the limits of knowledge itself, and to reflect on new ways of understanding the relationship between the cultural, social, and material (Savage, 2013, p.18). Using such a position allows for a focus on the affordances and capacities of citizen social science, which are mobilized in and through methods themselves.

The thesis delineates a series of social research probes to explore the method and how it works in practice in different contexts. Social research probes are 'a method for developing a richly textured but fragmented understanding of a setting or situation' (Boehner et al., 2012, p. 198). Probes as method were selected precisely because of the ways in which they upend the existing roles of researcher and subject in social research, and are the basis for a more interventionist study, which urges participants to consider their activities from unfamiliar perspectives, and to provoke reflections, diffractions and illuminations on the core values and practices of the social sciences (Boehner et al., 2012). Chapter 4 sets out the methods used to explore the key facets of citizen social science in more detail. Savage (2010, p. 248) identified that new data sources, working on the basis of whole populations, allow the public to be enrolled into data generation processes in active ways. However, he also stated 'we need to remind ourselves that rather than being new, this is a return to the tradition of Mass-

Observation and the various field research activities of the mid-twentieth century, all of which emphasised how the public could research themselves through projects of writing and observing'. The potential innovations of the approach of the thesis lie precisely in recognising the prior establishment of the Mass Observation project, as an early form of citizen social science, and probing it in novel ways. The subsequent combination of this probe with insights from the probes into two new projects, shed light on the affordances and capacities of citizen social science.

To do such a positioning justice, requires the use of facet methodology (Mason, 2011). Facet methodology assumes that the world – and what we seek to understand about it – is not only lived and experienced, but is multi-dimensional, contingent, relationally implicated and entwined (see chapter 4). As Mason (2011, p.83) notes, the main concern of facet methodology is 'to create 'flashes of insight' about an entwined problematic, rather than, for example, a more descriptive, 'maximum coverage', 'summary of findings' logic.' This is coherent with the ways in which social research probes help to shed light on settings of interest, to open up a conversation and to challenge assumptions of replicability, objectivity and generality (Boehner et al., 2012). Thus the probes into different forms of citizen social science help to create 'flashes of insight' into how citizen social science works in practice.

1.4.1 Researcher identity

I approached this thesis as a social researcher with an active and dynamic interest in the question of what distinguishes different forms and types of sociality and why these differences matter. This is consistent with my research interests in participatory methods and policy analysis, and in particular the politics of the research process. Citizen social science is a way in which to examine this – the tension between filling and plugging a data gap on the one hand, and a space or opportunity for reflection on the other. Exploring citizen social science entails a chance to open up the research process, and a chance to ask questions about who is allowed to collect data, who is the researcher, and who can do what with the data.

Positionality and reflexivity in the approaches of this thesis are set out in more depth in the chapter on facet methodology (Chapter 4). However, discussions of standpoint theory and scientific self-reflexivity have made it clear that ‘outsiders do not necessarily have a *more* objective vision of their object; but neither do they always have a *worse* perspective’ (Steinmetz, 2005, p. p.46). There are also practical advantages to locating criticism of the social sciences *within* the social sciences (Burawoy, 2005). Researchers are more likely to be exposed to ‘their own discipline’s orthodoxies, internal conflicts, and hegemonic imagined histories as part of their professional training’ (Steinmetz, 2005, p.46). However, there is also a risk that the power structure of the field they are examining has its own set of norms which places pressure on the researcher, and subjects them to systematic blindness, self-censorship, and pressures to intellectual conformity. This thesis attempts to address this challenge, particularly in the way it presents an analysis that shows accountability and awareness that research practices are not innocent endeavours (Haraway, 1988), and that the researcher is internal to the processes being studied. This calls for a heightened awareness of the knowledge practices and knowledges that come to be generated with research. It requires acknowledgement and consideration of the different ‘situated knowledges’ (Haraway, 1988) that are produced. The probes, as noted above, allow for this to happen by opening up the relationship between researcher and subject.

1.5. Research Questions

The contextualising of citizen social science, as set out above, necessarily gives rise to a series of research questions. The key research question this thesis seeks to answer is how does citizen social science work in practice? This has a dual focus. On the one hand it speaks to the fact that citizen social science is an emergent phenomenon and theorizing its practices and potential must first of all take stock of how it is being practiced. On the other hand, citizen social science is emergent in the sense that its potential is being shaped, and theorising it must be done with the ambition of exploring its potential, as well as the ideologies and values that drive innovation in practice. The research presented in this thesis both accounts for this normative dimension, whilst also intervening and probing the social research process, urging

participants in the probes to think about experiences from unfamiliar perspectives (Boehner et al., 2012). The sub-questions that follow on from this core question are:

- 1) What challenges are raised in terms of research design and execution?
- 2) What ethical issues are raised and how might these be addressed?
- 3) How can the data generated in citizen social science approaches be ‘used’? By whom?
- 4) How are citizen social science projects reconfiguring knowledge production processes? What are the potential effects of this process?

These sub-questions develop from the literature (see chapter 2) and the key facets chapter, and are explored and addressed in the empirical chapters 5 to 8. The approach of this thesis identifies and analytically ‘polishes’ (Mason, 2011) the multiple facets of citizen social science, to generate ‘flashes of insight’ into the practices and processes and potentials of citizen social science. It makes conceptual and empirical contributions to understanding how citizen social science works in practice, building on the emergent body of work on the subject so far.

The social research probes presented in this thesis generate multiple insights and illuminations into the inherent tensions in citizen social science and social research more broadly. They are an attempt at infrastructuring, to use a design term (Karasti and Syrjänen, 2004; Disalvo et al. 2014; Le Dantec, 2012), for a deeper and shared understanding, and a more contested way of understanding the social. They aim to create a more agile form of knowledge that is inherently political and challenging in its practice.

1.6. Thesis Structure

The thesis is divided into nine chapters: chapter 2 examines how citizen social science has been conceptualised in the academic literature. It contextualises citizen social science in the rise of citizen science as an approach for public involvement in science, predominantly in the natural and environmental sciences. It reviews how citizen social science might be undertaken, by examining the significant body of work on methods in the social sciences, in particular the ‘social life of methods’ and

methodological approaches to everyday life. The literature review highlights who citizen social science might be for, contextualising such an approach in the work on participation and publics in the social sciences. It demonstrates a practical, ethical and material history behind citizen social science. This gives rise to the need for scoping work to be undertaken to determine the key facets of citizen social science; this is presented in chapter 3. Such scoping work is informed by a desk-based review of projects that could be conceived as citizen social science, active participation in the citizen science community, and a series of 22 practitioner interviews about the potential of citizen social science. The chapter draws out some of the key tensions and insights into citizen social science that inform the design of the research strategy of the thesis.

Chapter 4 presents the research strategy and methods of the thesis. It argues that facet methodology (Mason, 2011), which draws on a gemstone metaphor, can be effectively applied to understand the phenomenon of citizen social science; it is a productive orientation in researching the multi-dimensionality of lived experience. The facets of this gemstone are explored in more depth using social research probes as methods, to open things up, and to provide ‘flashes of insight’ (Mason, 2011) from multiple perspectives. Thus facet methodology can be seen as an orientation for a methodology that allows flexibility and for the researcher to engage in a deeper immersion alongside social research probes. Social research probes, as explained above, provoke reflections on the key facets of citizen social science, to understand its dynamics and complexity.

Chapters 5 – 7 present an analysis of three social research probes into the key facets of citizen social science. They draw attention to the challenges citizen social science creates for research design and execution, particularly in terms of data generation in different types of citizen social science projects (Chapter 5). They highlight the ethical issues raised by citizen social science approaches and explore how these might be addressed (Chapter 6). They demonstrate how citizen social science raises the question of what counts as ‘data’ and who is to say, drawing attention to the politics of data and data ‘use’ (Chapter 7).

The implications of the social research probes are discussed in chapter 8, specifically the implications for individual participants in citizen social science, the implications of citizen social science for social science research, and also the implications of citizen social science for society more broadly. These are set out and problematised respectively in the three sections of chapter 8.

The thesis concludes by reflecting on the original research question of how citizen social science works in practice (Chapter 9). It also offers reflections on how citizen social science is perceived to be epistemologically distinct from other participatory approaches in the social sciences, and the transformative and developmental value of citizen social science, and thereby the role of citizen social science in the future of social science research. In particular, it reflects on the potential of citizen social science for collective experimentation and action, and as a way to merge collective and faster knowledge production.

How we do social science, what social science is, what its role and impact in society is, is enacted through its methods. While the survey and the interview constituted the opinionated individual subject of modernity, and the pervasive datafication of the last decades has produced the 'doing subject' (Ruppert et al., 2013), citizen social science has the potential to constitute reflexive subjects, engaged in knowledge production about social orders in a complex world, as they enact those very orders and worlds. This has the potential to open a broader space for contestation of troublesome issues, such as housing, and communities in deprived areas, as will be shown by the empirical work of the thesis.

Chapter 2. The very idea of citizen social science – a review of the literature

2.1 Introduction

As noted in the previous chapter, citizen social science is primarily conceived of as a method to mobilise and engage volunteer participants in conducting social research (Cantijoch et al., 2015). The review of the literature presented in this chapter, examines how citizen social science might be done, drawing on and distinguishing citizen social science from existing methods and approaches in social science research, most notably co-production and participatory action research (PAR). The review serves to contextualise citizen social science and to draw out the history of this seemingly emergent methodological phenomenon, dispelling myths or assumptions about what citizen social science might be, and where, or indeed what, it arises from.

The chapter is divided into six sections, to contextualise citizen social science within social science methods, and to explicate the practical, material and ethical context in which citizen social science is located. The second section examines how citizen social science has been conceptualised in the academic literature; the third section reflects on the politics of social science methods and how citizen social science might be done; and the fourth section examines the issues surrounding everyday expertise and how these have been accounted for in the literature. The fifth section of this chapter seeks to answer the question of who citizen social science might be for, drawing on the academic literature on publics and participation in social science research, to highlight the potential politics behind citizen social science. The literature demonstrates an ethical, practical, and material history behind citizen social science and the transformative and emancipatory claims behind its emergence.

2.2 How has citizen social science been conceptualised?

The academic literature on citizen social science is in relative infancy in comparison to its counterpart in the natural and environmental sciences, citizen science, which is growing and consolidating into a global movement (Vohland et al. 2018). Citizen

social science is generally conceived of as a method, whereby citizens collect data on the world around them for social science research (Purdam, 2014; Richardson, 2014). Citizen social scientists have a deeper level of participation than simply volunteering to give an interview, join a focus group or respond to a survey, instead recording what they see around them as they go about their usual daily activities (Purdam, 2014). Conceptualisations of citizen social science tend to converge around notions of mass participation and data collection at scale, where members of the public assist with research, and record their beliefs and opinions at volume (Procter et al., 2013). In this sense, citizen social science is perceived as having the very pragmatic goal of securing scalable human effort for the analysis of large datasets (Housley et al., 2014). This relates to the growing body of work that explores crowdsourcing and participatory sensing in more detail (Nold, 2017; Solymosi et al., 2017; Gabrys, 2014; Quercia, 2013; Salesses et al., 2013). Crowdsourcing becomes citizen social science when managed within a framework of social scientific research (Dadich, 2014). Purdam (2014) also draws on the links between citizen social science and crowdsourcing, suggesting that a crowdsourced data methodology is potentially a powerful tool for social science research.

Cohen (2017) conceptualises citizen social science in and against a background of volunteered information, crowdsourcing and participatory mapping of the intellectual commons. He suggests that citizen social science has 'begun by repeating the project of classical social science, namely to found itself on the principles of natural science' (2017, p.4). However, whilst it is possible for amateur naturalists to develop a distinct community of practice around spotting and identifying flora and fauna, Cohen (2017) draws attention to how un-natural it is to pretend to observe the social world as a natural science experiment. He suggests it is not only un-natural but also misses the qualities of the scientific method. Cohen's critique strikes at a key tension that citizen social science gives rise to, between sourcing more data on a mass scale, and a more democratic project of opening up social science research.

Citizen social science has the potential to go beyond methods, to provide a basis for forging a new relationship between the social science academy and society (Housley et al., 2014). There is a sense here of the potential of citizen social science as a means

for engaging with different audiences in the production of knowledge. However, in many cases, citizen social science approaches focus on instrumental attempts to develop data sets for use by others in more ‘expert’ roles.

Citizen social science is also beginning to be explored and delineated in the political sciences, particularly around engaging the public in policy research in a context of ‘increasing expectations of government and public services at a time of pressure on public spending, to major crises of urban and environmental sustainability’ (Richardson, 2014, p.83). However, much of the framing of citizen social science in this context is based on Cohn’s (2008) definition of citizen science as contributory projects – designed by scientists and for which members of the public primarily contribute data – and on Bonney et al.’s (2009) model of citizen science, as contributory projects of researcher-driven data-collection.

Citizen social science as an approach clearly links with the phenomenon of citizen science (Purdam, 2014), and with methods of participatory research, such as participatory action research and coproduction, and as will be explored in the following sections. The references to citizen social science in the academic literature tend to come from citizen science (Heiss and Matthes, 2017; Darg et al., 2016) and the environmental sciences (Irwin, 1995). Citizen social science is referred to in the citizen science literature as having a huge innovative potential for knowledge production (Heiss and Matthes, 2017) by cooperating with citizens to enable access to both large-scale data and ‘hidden’ data which are collected in situ. In spite of this, social science research projects ‘which experiment with the idea of citizen science, are still hard to find’ (Heiss and Matthes, 2017, p. 24). Dobрева and Azzopardi (2014) support the claim that the humanities are still only moderately present in citizen research, and mainly involve crowdsourcing activities, which fall under the contributive project type (see Shirk et al.’s (2012) typology of Public Participation in Scientific Research (PPSR)). In this way, whilst there appears to be much reference to the potential of citizen social science in the literature, there are less critical reflections on its practical realities, due to its emergent and fast evolving nature.

2.2.1 Citizen science and the links to citizen social science

In the natural and environmental sciences, we have seen a consistent development of the citizen science movement. This typically involves the collection, and sometimes the processing, of data—carried out by nonprofessional scientists in the context of a scientific project (Pettibone et al., 2017; Stevens et al.; 2014; Haklay, 2013; Cohn 2008; Silvertown 2009). Many citizen science projects have developed as a result of the opportunities provided by Information Communication Technologies (ICT) (Kullenberg and Kasperowski, 2016), and particularly pervasive computing, as well as a more general movement towards crowdsourcing and crowdfunding, where work and/or funding is obtained from the multiple sources of a large group of people or online community, namely from the crowd.

There are many examples of citizen science projects that recruit citizens, for example, to monitor local animal populations (such as the Great Backyard Bird Count¹ by Cornell Lab of Ornithology, its UK counterpart of the Big Garden Birdwatch run by the RSPB²), or local air quality, (as in Mapping For Change's Breath Clean project³ or the Kosovo Science for Change project⁴), or to classify big datasets, (as in the Galaxy Zoo project⁵). However, often the involvement of participating "citizen scientists" is limited to specific phases of the data-collection process (see chapter 3, section 3.4).

Despite the fact that citizen science is better documented than citizen social science, debate still remains about what actually constitutes citizen science, predominantly owing to the significant levels of variation in size, task and output amongst projects. Raddick et al. (2009, p.1) state that citizen science involves volunteers from the general public, or beyond the core science team, in scientific investigations as data collectors or analysts. They also draw attention to the way in which citizen science has moved to 'a web-enabled mode of operations and expanded into new and

¹ <http://gbbc.birdcount.org/>

² <https://www.rspb.org.uk/get-involved/activities/birdwatch/>

³ <http://mappingforchange.org.uk/projects/breathe-clean/>

⁴ <http://www.citizenscienceks.org/>

⁵ <http://www.galaxyzoo.org/>

innovative domains'. Haklay (2013), Cohn (2008), and Silvertown (2009), define citizen science as non-professionals voluntarily participating in science activities such as: data collection, analysis and dissemination of a scientific project. Citizen science takes a broad approach to the production of science, which includes experts and non-experts alike, with the residual principle that anyone can participate in the production of scientific knowledge.

Resisting a specific articulated definition of citizen science might also be seen as advantageous to numerous different participants and groups to, as expounded by Haklay (2013). It is worth noting the different narratives that can be told about the genealogy of citizen science, as these too can be traced with citizen social science. For example, Haklay (2013, p. 7) suggests that citizen science can only exist in a world where science has been professionalised 'because otherwise, any person who is involved in a scientific project would simply be considered a contributor and potentially, a scientist'. This draws attention to the power relations at play in the professionalization of the process of producing scientific knowledge. Silvertown (2009) charts the professionalization of the role of the scientist in the late nineteenth and throughout the twentieth century, noting that in the Darwin era, almost all science was citizen science albeit done mostly by affluent scientists. This is particularly interesting in terms of the positioning of citizen social science since it suggests that the concept can only exist in a context where those who can produce knowledge in the social sciences are determined by the institutions and industry. The point here is not to tell one particular story about citizen social science's genealogy but to also examine the relevant literature that might be useful in framing citizen social science and exploring its practicalities.

Citizen science has been dominated by natural science since some attributes of research projects are ideally suited to citizen science. This is because of the intensive nature of data collection, the need for quantitative measurements or observations, and also for well designed protocols that are easy to learn and execute (Gommerman and Monroe, 2012, p. 2). In this sense, it is understandable that much of citizen science is with non-human subjects, and non-qualitative work, working outside a policy context or without direct policy engagement (Richardson, 2014). Whilst there

are often big differences between projects, for instance when it comes to power relations, or the determination of goals and outcomes, there is hope that this rediscovery of citizen science might lead to a renewed mutual interest, and perhaps understanding, between scientists and the general public (Stevens et al., 2014). McQuillan (2014) sets out a claim for the countercultural potential of citizen science, characterising the emergence of citizen science as diverse activities that, by contrast, are mainly seeking validation from orthodox science. However, McQuillan gives examples of citizen science projects that open up all parts of the scientific method to participation and have a commitment to social justice, suggesting that citizen science can become more countercultural if it is prepared to question the hegemony of science. By acknowledging provisional knowledges, McQuillan (2014, p.) suggests that citizen science has the opportunity to build a strong complement to orthodox science rather than experiencing its own experiential and reflective aspects as a source of anxiety. Kullenberg (2015) also analyses citizen science as a resistance practice, and finds that citizen science can be a very successful resistance practice, suggesting it might be successful as a scientific method as long as it is able to produce novel facts that still adhere to scientific methods and standards and remains connected to the established institutions of science. However, it is possible to question how resistant an approach it really is, if it has to obey traditional histories of power and knowledge?

2.2.2 Citizen science and participation

The citizen science literature gives much attention to participation in scientific research, which is relevant to the discussion here. Considerable work has been done to develop typologies of participation rather than precise definitions (Haklay, 2018; 2013), as are set out in the following chapter on the key facets of citizen social science. Haklay (2018: p. 61) warns that participation in citizen science is a 'complex and multifaceted issue that requires attention, research and theorisation.' Shirk et al.'s (2012) typology of Public Participation in Scientific Research (PPSR) is useful here to distinguish the different types of participation in citizen science projects. Shirk et al. describe contributory projects, which are generally designed by scientists and for which members of the public primarily contribute data. They also describe

collaborative projects, which are generally designed by scientists and for which members of the public contribute data but also may help to refine project design, analyse data, or disseminate findings. Finally, they describe co-created projects, which are designed by scientists and members of the public working together, and for which at least some of the public participants are actively involved in most or all steps of the scientific process. In this sense, most frequently, citizen science projects are ‘contributory projects’ (Bonney et al., 2009) and it is much less frequent to see fuller participation on the part of citizens in the development of research questions, data analysis and being credited in publications (Mueller et al., 2012). People who participate in a scientific study without playing some part in the study itself – for example, volunteering in a medical trial or participating in a social science survey – are not included in definitions of citizen science. At the same time, the core issue of ‘who is a scientist’ is left deliberately unspecified. Haklay (2013) suggests that this is because it is easier to identify professional scientists as those that are employed to carry out scientific work or investigation, but in terms of unpaid scientists, the situation is more complex. Many will not define or identify themselves as scientists even if they are carrying out significant work within the scientific frameworks of data collection and interpretation. Others will use the qualification of amateur scientist to describe themselves, or a similar definition such as bird watcher, which is arguably an attraction for some participants. However, for Haklay’s (2013) purposes, scientists are all the active participants in a scientific project.

Conrad and Hitchley’s (2011) review of citizen science literature suggests that the citizen science process involves citizens in science as researchers (Kruger and Shannon, 2000), and has also been referred to as community science (Carr, 2004). Their review also states that citizen science can include Community Based Monitoring (CBM), ‘a process where concerned citizens, government agencies, industry, academia, community groups, and local institutions collaborate to monitor, track and respond to issues of common community [environmental] concern’ (Whitelaw et al., 2003). CBM can also be used to refer to community-based management, where citizens and stakeholders are included in the management of natural resources (Keough and Blahna, 2006). In this sense, the focus of more recent citizen science is on a potential greater sense of equality between citizens and scientists

(Lakshminarayanan, 2007), not just the traditional perception of scientists using citizens as data collectors (Conrad and Hitchley, 2011). Nevertheless, a critique to be levelled against citizen science is that it could be yet another discourse to engage people in becoming data producers. Wiggins (2012) and Silvertown (2009) note that modern citizen science differs from its historical forms primarily in the access for, and subsequent scale of, public participation.

Irwin's (1995) work associates the term 'citizen science' with science that focuses on the concerns of citizens, as well as citizens' contextual knowledges generated outside formal scientific institutions. Irwin draws on Mulkay's (1991, p. xix) perception of sociology's ultimate task as being not 'reporting neutrally the facts about an objective social world, but as that of engaging actively in the world in order to create the possibilities of alternative forms of social life'. This relates to Bordieu's (2003) notion of public sociology as both a traditional public sociology, where the sociologist makes connections to public issues, but also an organic public sociology, created in close connection with the public (Burawoy, 2018). This also resonates with Burawoy's (2005) claim for a public sociology to be brought into sociology to engage multiple publics in multiple ways. The concept of 'actively engaging with the world' is clearly a task for the sociologist, which is every bit as fraught as that presented to the scientist, since it involves a reappraisal of knowledge structures and relationships to 'external' groups (Irwin, 1995). Arguably Irwin's work provides a preliminary delineation of citizen social science's potential, articulated in the context of environmental sciences. However, as Mahr et al. (2018: p.101) note, 'citizen science practitioners and scholars from the social sciences and humanities sometimes still appear to be disconnected.' They suggest that 'setting up self-reflective and multi perspective citizen science projects might hold the key to finally overcoming old distinctions, not only between 'experts' and 'laypeople', but also between the 'sciences' and 'humanities' (Mahr et al., 2018: p.101). In this way, the literature on citizen science suggests that there is much potential for citizen social science as an approach, although a gap can be identified in terms of a delineation of the affordances and capacities of how citizen social science works in practice.

2.2.3 Coproduction and Participatory Action Research

Purdam (2014) and Richardson (2014) link citizen social science to more participatory and action forms of research and co-production in the form of community based participatory research where user knowledge and insight and also engagement and iteration are central. There are also many similarities between approaches to coproduction and citizen science (Holmes et al., 2017). The origins of coproduction as a term can be traced to the use of participatory methods in town and regional planning (Bell and Pahl, 2018); and the provision of public services (Barker, 2010; Ostrom, 1990). Coproduction builds on older ideas about 'participatory action research' (Holmes et al., 2017; Lewin, 1946) and 'knowledge exchange' (Flinders et al., 2016; Beal et al, 1986). Furthermore, there is a growing body of literature that argues for a wider role for various publics in scientific research as coproducers of knowledge (Richardson, 2014; Armstrong and Alsop, 2010; Martin, 2010; Nutley et al., 2007).

Coproduction is becoming an increasingly popular term in policymaking, governance, and research (Filip et al., 2017; Holmes et al., 2017; Durose et al., 2011), particularly in terms of a shift towards a deeper or more complex form of impact (Flinders et al., 2016). Policymakers could develop and implement more effective public involvement interventions by paying attention to a number of interrelating dynamic constituents that structure and foster the public's legitimacy, credibility, and power (Boivin et al., 2014). In coproduction, practitioners and potential research users are drawn into all stages of the research process (Jung et al, 2012; Burns et al, 2014). In this way, coproduction promises to be transformative, not solely in research terms, but in social terms, by engaging citizens and thereby potentially generating a renewal of democracy (Flinders et al., 2016). However, it is still not entirely clear what coproduction really means (Holmes, 2017), and in the case of health care, it is not always evident what counts as coproduction, specifically in terms of what is being produced, nor under what circumstances (Filip et al., 2017); the implications for participants are not clear either. There is such widespread support for the rhetoric of coproduction that there is a risk of failure to acknowledge the tensions that arise when 'professionals' and 'lay' people work together (Boivin et al., 2014) or how

broader societal inequalities may have negative consequences for researchers, participants and the research itself (Flinders et al., 2016).

Coproduction can be perceived to have emerged as a potential solution to an argued relevance gap in research and to the demands of ‘impact’ (Durose et al., 2011), since coproduction in research aims to put principles of empowerment into practice. This entails working ‘with’ communities and providing opportunities to learn and reflect from their experience. However, there is a need to study coproduction in and of itself, above the focus of research in which it is used (Holmes 2017); in other words, studies of coproduction in action.

Another area in which this is happening is the field of participatory action research (PAR), which draws on a model of community organising that builds the capacity and expertise of people experiencing an issue firsthand (Friere, 1996). Arguably PAR is a research style, an orientation to inquiry (Reason and Bradbury, 2013), and not a ‘method’ or a ‘procedure’ for research. It involves ‘a series of commitments to observe and problematise through practice a series of principles for conducting social enquiry’ (McTaggart, 1996, p.248). PAR is an approach that seeks to actively engage participants in the research process, from research design to dissemination. It challenges not only the status of researchers as experts, but also raises questions about how knowledge is generated (Tolman and Brydon-Miller, 2001); it questions the power dynamics in the research process.

PAR research is messy, with research questions generated by the participants, and with the overall aim of making a practical difference to participants. However, few PAR projects fully involve participants in the entire research process, potentially for practical or ethical reasons (Cahill, 2007). It is difficult, in practical terms, to strictly adhere to the basic tenet of fully collaborative research, in which the community under study is engaged in every step of the research process (Wiggins, 2012). Furthermore, PAR projects focus predominantly on collecting and presenting information to inform and mobilise collective action, rather than on theory development, which can create tensions for academic researchers, with other needs or requirements. It also raises particular ethical questions about the approach. In

many ways, PAR is not research, but a form of activism to affect change (Cahill, 2007). Arguably the body of literature that accounts for the practices of PAR sets out its place at the limits of what could be suggested to be research, and what could be considered to be action.

2.3 Social science methods

The thesis attempts to situate citizen social science within the context of social science research methods. It is therefore necessary to reflect on the current state of methods in social science research and to better understand the particular history of their development. Furthermore, in the context of exploring the potential of citizen social science as an approach, it is important to discuss what constitutes social science. In order to understand the potential of citizen social science, is important to contextualise this in discussion of what constitutes social science as a discipline. A useful starting point is Peter Winch's scrutiny of its central features. Winch (1958) suggests that the nature of the questions asked in the social sciences is more akin to philosophy than science. He explains that the division between the 'conceptual' problems and empirical inquiries reaches much further into the supposedly 'empirical' parts of the research process than most social scientists imagine. For example, in the case of housing studies, as Allen (2009) elucidates, the appearance of solving an empirical problem is only superficial and is seriously misleading (Hutchinson et al., 2008). In this way, housing and the issue of empty houses, are both a conceptual and an empirical issue, as probe 2 into the Empty Houses Project, explores (see chapter 5-8). Furthermore, solutions, such as, gathering more data about the issues are at times superficial.

Winch (1958) suggested that before we can try to explain concepts and actions, we have to identify them correctly. This can only be done by seeing how they, and the concepts they are associated with, fit within a way of life. So what is crucial is the correct identification and description of concepts and activities. Winch is of the opinion that once we pay sufficient attention to description and identification, we will be less interested in explanation. Instead of viewing concepts as theories which explain actions, Winch asks us to treat them as constituting the terms within which

people carry on their lives (Sharrock and Anderson, 2008). Thus if the very idea of social science is about the 'rich' 'thick' description (Crabtree et al., 1998; Geertz, 1973) of the concepts and activities of social life, what are the implications for citizen social science?

Savage (2009) identified a descriptive turn in sociology, and explored how such a turn impacted on the empirical work of the discipline. This work serves to reflect on the common concern for a refusal of explanation, and a shared preference for describing processes, whether this is as patterns, clusters, assemblages, sequences, or associations (cf. Adkins and Lury, 2009). Savage (2009) proposed contextualising descriptive sociology in the 'tortuous' relations of the discipline to the natural sciences and the humanities. The use of the descriptive in Sociology, Savage suggested, is indicative of a shift away from the humanities (which he largely identifies with literature and history, and the use of narrative within these disciplines), and a move towards the natural sciences (Adkins and Lury, 2009). Such debates raise questions about what sort of data might be produced in citizen social science and how might it be 'used'.

2.3.1 Knowing politicisation of measurement and value

Methods in and of themselves are not neutral. In many ways, as the following section notes, methods have their own social life (Savage, 2013; Ruppert et al., 2013) as their efficacy and value changes over time. Thus they do not just describe society, but help to create it anew. They are implicated in making changes to the social world itself. Social facts are not neutral statements just out there to be collected. Social facts are constructed (Latour and Woolgar, 1979) and therefore the implications for citizen social science are such that the notion of collecting and counting is called into question. Social facts cannot be objectively collected or counted (and Latour and Woolgar's work shows neither can scientific facts) and the concept of citizen social science further problematizes the process of knowledge production in the social sciences, as it asks who is to be involved and how, in the construction of social facts.

Adkins and Lury (2012, pp.21-22) draw attention to the central question of participation and partiality, suggesting that ‘the nature and characteristics of partiality – of the taking part, or participation – or partisanship (Latour and Weibel, 2005; Rogers and Marres, 2002) rather than representativeness’ may be a crucial judgment of entities in relation to the use of measures. In this way, the dynamic composition of social scientific objects becomes available for sociological analysis, in ways that make visible the ontological as well as epistemological commitments.

Stengers’ (2003) use of constructivism takes this notion further, in the way in which she tries to get away from the binary alternative of socially constructed or objectively true scientific practices and objects. Stengers’ (2003) approach focuses on what she calls an “ecology of practices.” She examines how particular practices — the practices of science, in particular — impinge upon and relate to other practices that simultaneously exist. This means that the question of what science discovers about the world cannot be separated from the question of how science impinges upon the world. This is interesting when considering the potential of citizen social science and its implications for social science research, particularly given Law’s (2003) problematizing of the notion of method. Law (2003, p.7) highlights ‘the failure (or refusal) to understand the logic, the character and the politics of the project of knowing.’ In this way, citizen social science gives rise to many complex questions about the nature, and politics, of social science, and social science methods.

Law, Ruppert and Savage (2011, pp. 1-2) argue that methods are ‘doubly’ social: ‘methods are social because they are constituted by the social world of which they are a part’ but are also ‘social because they also help to constitute that social world’. It is useful to reflect on the positioning and arguments surrounding the ‘social life of methods’ as these have much to bear on conceptualising citizen social science. The work exploring the ‘social life of methods’ seeks to

unpick the hegemony of the positivist assemblage not only through a critical engagement with the agency of social research methods, but also through expanding the methodological repertoires, through recognizing the increasing problems of positivist frameworks to order and organize proliferating data sources.

(Savage, 2013, p.17)

Savage draws on Strathern (1992) and others, to suggest that questions of method can best be tied up with issues of ‘making explicit’, what might otherwise be implicit. In this way, the ‘Social Life of Methods’, then, is an exploration of the changing historical boundaries between the implicit and the explicit, and explores the mechanisms and devices that can produce formal knowledge. It does not and should not assume that the contrast with this formal knowledge is any more necessarily tied up with domination than implicit realms of social life, but it does recognize that the stakes and affordances which may be generated by such formal methods have the capacity to generate distinctive forms of agency. Savage (2013, p.17) notes that

the question of method as raising fundamental theoretical questions about the limits of knowledge itself, and to reflect on new ways of understanding the relationship between the cultural, social, and material.

Framing citizen social science in the wider context of thinking around ‘social life of methods’ allows for a richer understanding of citizen social science as a method, and the complexities, affordances, and challenges that ensue.

2.3.2 Methodological experimentation

Citizen social science has been articulated as a method for gathering data to be used in social science research and to enhance our understanding of the social and to potentially help solve intractable social issues. However, the locations in which we might find social science methods have multiplied (Elliot and Purdam, 2015; Savage 2013): they are being invented and circulated outside of the academy, which some argue has led to the democratisation of social research methods (Adkins and Lury, 2009). Furthermore, this expansion of the use of social science methods has happened against a backdrop of renewed interest in the politics of method in the social sciences (Lury and Wakeford, 2012; Büscher, Urry and Witchger, 2010; Adkins and Lury, 2009; Rabinow and Marcus, 2009; Savage and Burrows, 2007; Thrift, 2005). The disciplinary structures of the academy mean it is difficult for it to handle an emergent phenomenon, such as digital sociality, or, indeed, new contexts which require new methods, such as citizen social science. Whilst Marres (2014) examines the issue of digital sociality, the same may be applied to citizen social science - the

interesting question is *how to deal* with this challenge and what responses are possible (Marres, 2014).

Mills (1959) clearly stated that it is not possible to apply a method as if it were indifferent to the problem it seeks to address, but that method must rather be made specific and relevant to the problem. Mills (1959, p.83) claimed that no method 'should be used to delimit the problems that we take up, if for no other reason than the most interesting and difficult issues of *method* usually begin where established techniques do not apply'. Gane (2012) interprets this as a challenge to think creatively about sociological methods in the face of the complexities of the empirical worlds with which we are engaged.

Mair et al. (2013) note a reconfiguration of the 'technical' practices of social scientists, in a reflexive move, into objects of inquiry, in addition to the development of methodological experimentation in the area of the social studies of social scientific research practices. It is to this notion of methodological experimentation that the work of this thesis responds. It attempts to contextualise and situate the conceptualisation of citizen social science within it (see the following for further examples: Fisher and Marcus, 1986; Bourdieu and Wacquant, 1992; Evans and Foster, 2011; Mason, 2011; Back and Puwar, 2012; Gane, 2012). Furthermore, Lury and Wakeford (2012) challenge the claims of Savage and Burrows (2007) that empirical research in academic social science is in crisis, by emphasising that the methods of social research have always been distributed. Lury and Wakeford's (2012) work suggests that methods are a means by which the social world is not only investigated, but may also be engaged.

Such efforts resonate with the significant body of work on mobile methods (Büscher et al., 2017) and 'moving' methods (Büscher, 2018), which foregrounds mobility, rather than seeing it as a constituent of larger social processes (Hannam, et al.; 2006). The emergence of 'mobile methods' combine and re-orientate traditions such as ethnography with the use of new technologies such as the smart phone (Büscher and Urry, 2009; Büscher, et al., 2011; Fincham, McGuinness, and Murray 2010; Hein et al., 2008). All of these developments stem from prioritizing the specificities of mobility

itself, and mark a contrast with studies in which mobility is treated as an incidental part of a wider phenomenon (Faulconbridge and Hui, 2016).

In established fields of social inquiry, such as sociology and anthropology, and in disciplines such as art, design and architecture, efforts are underway to reinvent ways of researching social life (Marres et al., 2018). Such conceptualisations of social research methods as experimentation and reinvention are useful when trying to contextualize citizen social science, since they draw attention to the wealth of research in the social sciences that is not conventionally drawn upon in delineations of citizen science, and citizen social science. They are not only useful but therefore necessitate a more creative approach to the use of methods in the empirical work of the thesis. The use of social research probes, adapted from culture probes, serve to experiment with, and illuminate how citizen social science might work in practice.

2.4 Everyday expertise

In citizen science, Irwin (1995) draws our attention to Raymond Williams' profound commitment to democracy and to the 'authentic diversity and complexity of any people' (Williams, 1989, p.305) – which potentially offers an uplifting and positive incentive to consider the relationship between citizens and scientific expertise. Williams' work emphasises the need to begin any analysis of the everyday from the perspective of citizens rather than (as happens so often) from the 'higher rationality' of scientists and elite groups. In this way, Irwin draws attention to the possibility of switching perspectives and constructing a citizen's view of science rather than a scientist's view of citizens. Irwin (1995, p.5) suggests that Williams' work therefore offers us a means of turning the usual accounts of the 'public understanding of science' on their head and, in so doing, of establishing a more 'symmetrical' relationship between 'public' and 'formal' expertise. In this way, concern for 'democratic ideology', extends beyond public decisions and into a series of wider questions about everyday understanding and control. This is particularly useful when attempting to explore the power dynamics at play in citizen social science in more detail.

Irwin (1995, p.6) goes on to claim that ‘there have been a number of important developments in our grasp of ‘technical expertise’ and its relationship to ‘everyday expertise’ – developments which may suggest a greater need for humility (see Jasanoff, 2007; 2003). Irwin draws attention to the flaws in statements about ‘scientific democracy’ and ‘public understanding of science’ since they entail ‘an implicit judgement of superiority in every context of the scientific view of the world’ (Irwin, 1995, p.6). Whilst there remains a general lack of agreement as to the desirability of including ‘lay’ perspectives in expert-led processes (Tsouvalis and Waterton, 2012), Irwin (1995, p. 7) claims that ‘there will be no ‘sustainability’ without a greater potential for citizens to take control of their own lives, health and environment’. Thus, in order for this to occur, some careful thought about the relations between technical expertise, citizen needs and contemporary culture needs to take place.

As mentioned above, the nature of including different perspectives in the research process necessarily gives rise to questions of expertise and expert knowledge. Stengers (2005, p.160) called for researchers to invent more ‘apparatuses such that the citizens of whom scientific experts speak can be effectively present [and] participate in the invention.’ Whatmore (2009) responded to this call for the ‘redistribution of expertise’ with specific relation to environmental knowledge controversies in Science, Technology and Society (STS). Whatmore encouraged

diversifying the publics with whom scientists collaborate on matters that concern them, and on the terms on which they do so...[This] should also involve... redistributions of environmental expertise in which the inventiveness of social scientists comes to the fore in the design and conduct of research practices that stage more and different opportunities for new knowledge polities to emerge.

(Whatmore, 2009, p. 596)

In the context of citizen social science, this reasoning recognises that expertise in citizen social science is dispersed in a way that is different from traditional forms of social science, and presents space to engage with ideas of ‘experiential expertise’ (Durose et al., 2011; Collins and Evans 2007) and the ways in it can enhance research, potentially through methods of coproduction. Notions of valuing mundane, everyday social inquiry to scaffold for a more bottom up social science are explored in the

social research probes of the thesis (see chapter 5). Furthermore, citizen social science, drawing attention to different situated knowledges (Haraway, 1988), allows for quality insights, and reflects on how the expert position is not a monopoly of truth and insight (see chapter 6). Allen (2009) argued for a valuing of the lived experience to challenge the inherent hierarchies of knowledge in the research process in relation to housing studies. He argues that ‘housing studies’ fail to recognize the epistemological value of “lived experience” and the “local knowledge” that is constituted through it.

Hymes (1996) describes ethnography as an explicit and elaborated form of the everyday practice of contextual learning: ‘our ability to learn ethnographically is an extension of what every human being must do, that is learn the meanings, norms, patterns of a way of life’ (Hymes, 1996, p.13). This raises questions about observational expertise. Is everyone – innately – to some extent a social scientist already, even when not enrolled in formal social science work? Are people already fieldworkers of their own lives, generating descriptive sociological data as they go about their daily lives? Or does the professionalization of observational techniques constitute a different category of sociological data that means that this is not the case and people need to be trained in formal and distinct sociological ways of analysing and collecting data? What is the value of the data that non-experts can generate in their observations of everyday life, as they go about making sense of the world around them? These are questions that are explored in the empirical work of this thesis.

Suchman (2011) suggests that society’s everyday practices of ordering and rendering the social world intelligible are an integral part of our subject matter (Garfinkel, 2002). In this way, social science methods are radically *reflexive*. Suchman (2011, p.22) also suggests that our own work of making sense of the world ‘relies upon the same basic competencies through which its intelligibility is collectively enacted in the first place’. So method and theory are ‘not the exclusive province of the social scientist’. Such suggestions have important implications for citizen social science as an approach, signifying the potential of citizen social science to enable wider

engagements with method and theory, beyond the confines of the academy (see chapter 5 for further discussion).

It is worth noting that just because citizens live and experience their everyday lives, it does not mean they can necessarily offer privileged insight into it, in a way that can produce usable evidence to inform understanding and, for example, policy making. Social scientists also have everyday lives. Revealing the complexities, dynamics, causalities and tipping points of everyday life is a methodological and epistemological challenge. As the review of debates on lived practice and the performativity of method above illuminates, it is not something that comes easy to sociologists, let alone ‘untrained’ citizens.

It is not possible to discuss questions of expertise, and the challenges to power relations and politics without reference to the work of Michel Foucault (1977, 1979). Savage (2013, p.12) suggests that Foucault’s work opened up new sensitivities to the performative role of expertise bound up in methods. The idea of citizen social science and citizen volunteer observers collecting data for use in social science research raises a debate about validity and objectivity (Purdam, 2014). However, citizens are central to an exploration of everyday life since they create intelligibility (as Suchman argues above) that can constitute accounts and ‘data’ as they go about their daily lives. If citizen social science is to be a useful approach in the social sciences in Mulkay’s sense of ‘engaging actively in the world in order to create the possibilities of alternative forms of social life’ (Mulkay 1991, p. xix), citizens need to have a more expanded role in social science research, working in collaboration with trained social scientists in all aspects of the research process, beyond just data collection. Whilst this may pose challenges, it is clear that there are genuine opportunities for the involvement of citizens in the analysis of data as well as research design in robust social science research. Recognised forms of social science, from statistical analysis to participant observation, involve serious commitment and engagement in analysis before, during and after doing the research. Why exclude citizens from that form of social science?

Expertise in social understanding is a practice that matures over time ‘not a science open to expertise in any ‘academic’ sense of that word’. Thus, ‘there is and can be no elite of independent experts in (the genuine content of) social science’ (Hutchinson et al., 2008, p.13). This highlights an important issue, namely that we are all practical experts in the process of practicing everyday life. However, it is undeniable that ethnographic participant observation and sociological analysis are something that has to be learnt, and it is difficult to learn. It involves a distinctive method that critically generates field notes and reflection, and an existential transformation of the self into a research tool. This is what makes it social research. In other words, it is important to distinguish here between everyday practices of reading the social world, and social research. When do accounts of lived lives become data?

The key question of how to assess the quality of information provided by everyday analysts in terms of how ‘good’ or ‘bad’ it is and whether it is ‘misinformation’ or ‘disinformation’ has been explored in the field of crisis response. Palen et al.’s (2011) work on ‘everyday analysts’ leads them to suggest that ‘people’s assessment of information helpfulness and credibility is a function of the ‘everyday analytic’ skills they employ during mass emergencies. However, Palen et al. (2011, p.53) explain that

in safety- and time-critical situations, the major concern with respect to yielding some authoritative control to “crowd sourcing,” for example, is an unrealistic attachment to the ideal of *accuracy*.

Palen et al. (2011) explore ‘helpfulness’ of information as an alternative ambition for working with ‘everyday analysts’, and delineate the fact that ‘helpfulness’ is not an inherent quality of information. Helpfulness is instead constructed by context, where consumers—and even providers of information—recognize, explicitly or otherwise, that it is often *relative to what is needed*. This is a crucial distinction in understanding the helpfulness of information in mass emergency settings. In their research, Palen et al. (2011) take the discussion away from ‘good’ and ‘bad’ in terms of the quality of the data, and show how actionable helpfulness is achievable through a range of features with respect to information and source. They suggest that this also helps to lend power to people by enhancing their abilities to be ‘everyday analysts’.

In this sense, the importance of Palen et al.'s (2011, p.55) work is the call for a fundamentally different perspective to emergency response 'that accepts that information gathering and processing activities must be more socially distributed' and the task of the researcher becomes one of facilitation of this process. Such a perspective builds on the view that people are already endowed with analytical abilities (Shapiro, 1994) and that they work best in terms of decision making, within a confined or demarcated environment, in which the information available, or time in which to make a decision, is limited - a bounded rationality – and even more so in times of mass emergency (Simon, 1996). It is worth noting the vital conclusion that

the mistake authorities and researchers often make when considering technology solutions in the emergency space is that the standard for helpful information must be "accuracy".'

(Palen et al., 2011, p.55).

Much can be learnt from this work in the development of a citizen social science approach. Whilst the situation of an emergency response is in many respects far from the everyday life referred to earlier in this section, it is possible to argue that this bounded rationality is true for all aspects of human life; the problem during mass emergencies is that we tend to resist the idea even more (Simon, 1996). In this way, (Palen et al., 2011)'s work assists in considering that information produced by members of the public is more accurate than we might presume, and that questions of data quality frequently leveled at citizen-generated data, are not straightforward. Furthermore, such issues necessitate the use of a method to study citizen social science in practice that recognises the and embraces the differentiated nature of expertise.

2.5 Who is citizen social science for?

Many positive moves towards the opening up of research and policy knowledge are hampered by divides within the scientific community on approaches to public participation (Richardson, 2014). One issue is around who has the power to define such concepts. Another is around the porosity of boundaries between roles and the fact that people do not necessarily only occupy one role at any one time. As Richardson (2014, p. 33) notes,

even setting firm boundaries between scientists or researchers, and the public or communities, is a troublesome proposal... For example, some individuals span boundaries between worlds or roles, such as ‘academic-activists’ or ‘pracademics”.

The use of the term public here broadly includes people or groups of people who are primarily based outside recognised academic institutions. The thesis does not explore notions of ‘citizenship’ in great depth, instead focusing on the concept of participation and participants. Not addressing some questions of citizenship risks criticism, as it leaves out some aspects of power, rights and responsibilities. However, a focus on participation-related aspects of ‘citizen’ social science directs attention to the critical practices of engagement, opening the framing to consider involvement of participants (including non-citizens, such as unregistered migrants, tourists, visitors).

Exploring participatory or public social science is an extremely well developed area of social research. It is worth reflecting here on what the term ‘citizen’ adds to the conceptualisation of citizen social science set out above. Arguably use of the term ‘citizen’ is contextually relevant to many other aspects of social life that seek to re-engage with the ‘citizen’ in a neo-liberal context (Stewart and Lucio, 2015).

Furthermore, there is a strong rhetoric around the notion that participation is an inherently positive thing. A normative (or ethical) rationale for participation understands participation as a public good, as ‘the right thing to do’ (Tsouvalis and Waterton, 2012; Chilvers, 2008). Instrumental rationales for participation, on the other hand, view participation as a better way to achieve particular ends. It could also be argued that the discourse of participation is seemingly authoritarian, with participation being alluded to as the new tyranny (Cooke and Kothari, 2001).

There is a large corpus of work in the social sciences that focuses on conceptualising, theorising and exploring the limitations and challenges of participation. Tsouvalis and Waterton (2012, pp. 112-13) chart the history of the participatory turn in the European context suggesting a ‘progressive’ trend, ‘moving away from ‘instrumental’ forms of participation... towards new forms that privilege the co-production and coevolution of knowledges between scientific and lay actors.’ This is interesting since they highlight ‘a strange confluence at which processes of public participation and

deliberation have almost become orthodoxy, whilst simultaneously great scepticism is being pronounced about them' (2012, pp. 112-13). Tsouvalis and Waterton also draw attention to the apparent paradox between the optimistic portrayal of participatory practices in the natural and managerial sciences, but the 'intensely disillusioning' portrayal of public participation in the social and political sciences.

In exploring the terms citizenship, participation and publics, the question of 'who is citizen social science for?' arises and 'what publics are being engendered and produced through citizen social science?' Frequently this notion of publics falls through the cracks and is not given due attention. Irwin and Wynne's (1996) relational focus on both the operation of scientific expertise or institutions, and different 'publics' is useful since they interpret both 'science' and 'the general public' as diverse, shifting and often diverging categories. They call for a rethinking and reconceptualization of the relationships between 'science' and the 'public' so as to attempt to make progress at the level either of understanding or practical intervention.

An assessment of the literature on mobile methods is advantageous since this is a participatory mode of inquiry within the growing sociological fields of 'mobile' (Büscher et al., 2010) and 'inventive' (Lury and Wakeford, 2012) methods. This literature denotes concepts of "moving along" with publics, "moving in" with them, and "being moved by" things that happen along the way, and "being moved to act" on insights, which would be beneficial to examine in relation to citizen social science. They also advocate experimental methods, from ethnomethodological 'breaching experiments' and artistic interventions to experimental implementations of prototype technologies, which raises questions about the responsibilities and temporalities of social science and social scientific engagement in social change.

There remains a tension in the literature on participation between initiatives designed specifically for the inclusion of public rationalities, 'social factors' or local knowledge, which are then directed in such a way that they often, paradoxically, deny the possibility of those non-scientific rationalities and factors being articulated (Tsouvalis and Waterton; 2012). This is a significant issue that cannot be easily

resolved and which has the potential to continue to exist in a citizen social science approach unless it is genuinely collaborative. Furthermore, Peterson (2001, p.136) calls for ‘an ethic that appreciates the intense and distinctive ethical character of personal relationships without making them the only locus of moral insight and responsibility’. A feminist care ethic makes relationships central to epistemology and ethics. Peterson goes on to suggest that ‘feminist ethics make *relationships*, rather than principles, rules, or rights, central to moral thinking. Building, maintaining, and improving relationships constitute primary ethical objectives’ (Peterson, 2001, p.138). This clearly builds on Haraway’s (1988) concept of ‘situated knowledges’ – that all of the knowledge on which moral decisions are based is partial, and always limited because it is contextual, and located in specific times and places, and from specific perspectives.

2.6 Conclusion

As noted in the introduction chapter, social scientists have proposed that their disciplines may be undergoing a transformation, as the resources and techniques of social research are being redistributed among a variety of agencies inside and outside the university (Marres, 2012; Adkins and Lury, 2009; Whatmore, 2009; Savage and Burrows, 2007). The question remains of how to come to terms with the reconfiguration of research cultures and the active participation of social actors in social research (Marres, 2012). The review of the literature presented in this chapter points to the potential of thinking creatively about method (Gane, 2012) and for collective experimentation to invoke the collective sociological imagination (Wright-Mills, 1959).

This chapter has presented an ethical, practical and material history behind citizen social science. It has also demonstrated that citizen social science cannot be fully examined without the use of, and a more profound understanding of, social science methods and the ensuing debates about measurement, value and description. Without the former, citizen social science becomes something else, as the scoping work presented in the following chapter on the key facets of citizen social science argues.

Chapter 3. Scoping work: the key facets of citizen social science

3.1 Introduction

The previous chapter presented a practical, ethical, and material history of citizen social science. However, it is also necessary to examine the ways in which citizen social science is emerging and being practiced. This chapter charts the messy world of citizen social science, by examining different types of projects currently in existence. Some do not conceive of themselves as citizen social science, but they exhibit characteristics that fit the criteria developed in this study. They are included to enable discussion of the broad range of citizen social science activities. In many ways, these projects are enacting citizen social science as a new form of knowledge production. This chapter identifies and describes a core set of these projects and identifies ‘key facets’ of citizen social science, that is, the practices, motivations and methodologies that characterise these projects as citizen social science. This is designed to serve three main purposes: firstly, to enable a deeper understanding and contestation of the newly emerging citizen social science movement; secondly, to identify key issues that require further investigation; and thirdly to develop a concept for a citizen social science that produces genuinely new ways of knowing the social world.

This, however, is not a straightforward task. Due to the complex nature of identifying and knowing what an emergent phenomenon like citizen social science is, this chapter constitutes an experiment in different ways of categorising examples of it, as a way to identify its core challenges, and tensions. Even the term ‘emergent phenomenon’ is not without its own particular troubles, given that the Mass Observation project, which forms the basis of one of the probes of the thesis, as set out in chapter 4 on social research probes as method, and in the empirical chapters 5 – 8, was initially set up in 1937. With such an early, arguably ‘proto-citizen social science’ project in its ancestry, citizen social science has had an already lengthy period of emergence.

This chapter focuses on the articulated possibilities of citizen social science, its potential and normative ideals, as set out by practitioners in the field. This is necessary as a form of scoping exercise to better understand the ways in which the concept of citizen social science is already being used in the field, and to thereby inform the design of the empirical work presented in this thesis. In many ways, the phenomenon is more widespread than the label, and research is being carried out into the ways that engage volunteer citizens as co-researchers in social research. This is the linchpin criterion for the review of projects aiming to draw out the key facets of this emerging phenomenon. The chapter examines how people are doing citizen social science without necessarily calling it such. It is these key facets that will then be probed for in the three empirical chapters of the thesis. This chapter also aims to scrutinise and include another set of situated knowledges in citizen social science, namely those of practitioners already undertaking projects, which could be considered to be citizen social science. This is so as to offer up for contestation an understanding of citizen social science from multiple perspectives. It also allows for some early reflections on the potential impact of the articulation of citizen social science set out in this thesis, and the mechanics behind claiming the existence of citizen social science.

The second section of the chapter accounts for the approach used for the scoping work of this chapter to draw out the key facets of citizen social science. The third section reviews how citizen science has been conceptualised to assess the usefulness of such attempts for framing citizen social science. Reflections from active participation in the citizen science community form the basis of such analyses. These are then brought to a review of a number of types of projects that could be conceived of as citizen social science in the fourth section of the chapter. This section aims to assess the key characteristics of such projects and the ways in which other projects are approaching the concept of citizen social science. Lastly, an analysis of twenty-four practitioner interviews is presented to explore the key tensions in the potential of citizen social science, as articulated by those that are undertaking citizen social science in practice. It is these tensions that inform the research design presented in Chapter 4, and that are probed for in the empirical chapters of the thesis, chapters 5-7.

3.2 Identifying the key facets of citizen social science

Much of the ethos of Do-It-Yourself, or indeed Do-It-Together, science is based on action and discovery by doing. However, in order to try to make sense of the messy terrain of citizen social science, some background scoping work was necessary. This scoping work then informed the research design of the facet methodology and social research probes which are discussed in the following chapter (4). This scoping work was comprised of three complementary perspectives: participant observation in numerous events, workshops and conferences in the citizen science community over the course of the PhD; a desk based review of projects that could be conceived to be citizen social science to compare and contrast the ways in which such projects present themselves; and a series of twenty-four semi-structured interviews with relevant practitioners in the field. The approaches used to develop each of these perspectives are set out in more detail below.

Throughout the course of the PhD research, I attended and participated in over twenty different types of events organised within, and beyond, the citizen science community. These included international consolidation events such as the European Citizen Science Association (ECSA) General Assembly in November 2015 in Barcelona, the ECSA conference in June 2016 in Berlin, and the ECSA conference in June 2018 in Geneva, where I attended as a researcher in the field. I also attended workshops and other events on citizen science and citizen social science, such as the Swarm/Nominet Trust hackathon⁶ in September 2014 in London, or the citizen science safari in November 2015, in Barcelona, where I attended as a participant without much prior knowledge of the field. I also participated in citizen science projects, as a volunteer, such as for the citizen science day at the Museum of Science and Industry in February 2016 in Manchester, or as part of the Cloudy With a Chance of Pain⁷ project at the citizen science event as part of the Manchester Day in June 2016. I have also submitted data and participated as a citizen scientist in numerous citizen science projects, from offline projects such as Bioblitzes, to online projects such as Galaxy Zoo, and Fix My Street. My 'immersion' in the citizen science

⁶ <http://swarm.gd/swarm/citsocsci-nominet-trust/>

⁷ <https://www.cloudywithachanceofpain.com/the-project>

community, thus involved participation in different roles within projects and community events, and the reflections from such activities will be presented in the section below.

Concurrent with participating in and exploring the citizen science community, I also undertook a review of existing projects that could be considered citizen social science, even if they did not necessarily use that term. This review discussed the commonalities and differences in the approaches used in the projects, explored why they could be seen to be forms of citizen social science and what doing so brings to our understanding of what might constitute citizen social science. The main criterion for identifying projects was that research was being carried out in the ways that engaged volunteer citizens as co-researchers in social research. Projects were selected as relevant based on how they presented their aims, as well as from recommendations from informal discussions and as recommended from the practitioner interviews. A snowball approach to sampling (Noy, 2008) was taken to adding projects to the list for review. Once differentiating characteristics between projects started to repeat themselves, I determined that obtaining three different but valid examples for each category, or type of project, would be sufficient for explaining that type of project.

As mentioned above, a series of twenty-four informal semi-structured interviews also informed this chapter. These were undertaken with a range of practitioners and academics that were: working in the area of citizen science (and had knowledge about citizen social science), who were undertaking citizen (social) science projects, or who demonstrated a relevant knowledge or perspective on the notion of citizen social science. The aim of these interviews was to shed light on how others conceptualise, practice or envisage citizen social science. The interview guide can be found in Appendix 2 of this thesis. Practitioners were identified through desk research and informal conversations. A list of interviewees can be found in Appendix 3 of this thesis. Due to the undefined and emergent nature of the phenomenon, a snowball sampling approach (Noy, 2008) was used to continue to identify relevant practitioners and experts in the areas of citizen science and citizen social science. This approach stopped when insights began to repeat themselves. The twenty-four

interviews were semi-structured, and ranged freely. They were documented in notes produced during and after the interviews.

It is worth noting the inherent problems with notion of 'expert' in this context, particularly given how the substantive subject area of citizen social science in itself raises many questions around expertise (see chapters 5 – 8). The literature on expert interviews draws attention to debates about what constitutes an expert, the differences between the various forms of expert interviews and their role in research design (Turner, 2001; Bogner et al. 2009; Flick, 2014). The interviews undertaken for the purposes of this part of the thesis focused on opening up a discussion around how citizen social science might be understood as an emergent phenomenon, where it could be argued that no 'experts' exist yet. Bogner et al. (2009, p.1) state that:

talking to experts in the exploratory phase of a project is a more efficient and concentrated method of gathering data than, for instance, participatory observation or systematic quantitative surveys. Conducting expert interviews can serve to shorten time-consuming data gathering processes, particularly if the experts are seen as "crystallization points" for practical insider knowledge and are interviewed as surrogates for a wider circle of players.

The interviewees for the scoping research presented here were selected on the basis of their practicing an approach to participatory civic data collection and analysis, or similar approaches that involved participants as social data producers and/or analysts in some form. They were very much perceived to be 'crystallization points' as Bogner et al. (2009) suggest. The aim of these interviews was also to discuss the practical experiences of people running such projects, rather than for specific 'experts' to make claims as to what constitutes citizen social science or not.

3.3 Reflections from participation in the citizen science community

Citizen social science appeared to be a relatively new term in the citizen science community that was not necessarily widely referred to. Where it was used directly – such as during a Swarm/Nominet Trust event in September 2014, the event had a

hackathon⁸-style approach and aimed to find technological solutions to social issues. In the European Union Citizen Science community, there was very little use of the terms ‘citizen social science’ or much engagement with the social sciences more broadly. In June 2016, the European Citizen Science Association organised a conference in Berlin; one of the conference streams focussed on citizen science Studies – Engaging with the participatory turn in the co-production of science and society. In many ways this panel revealed the scale of interest of public participation in science, which is different from Public Understanding of Science (PUS) in the 1980s, or science for the people in the 1970s. The discussions during the session also drew attention to the different modes of participation and reflections on epistemologies, and the social history and studies of science. Questions were raised about the necessity of opening up a new area around citizen science studies to reflect on such issues further (Mahr et al., 2018). Whilst such discussions highlighted some of the more social aspects of citizen science, they were still far from a delineation of citizen social science and what might constitute it.

In January 2017 I started a four-month internship at the United Nations Educational, Scientific and Cultural Organisation’s (UNESCO) headquarters in Paris, in their Science and Human Sciences division, working specifically on the launch of an online platform and offline project called the Inclusive Policy Lab⁹. The lab works on the emerging issues of the co-creation of knowledge and its translation into inclusive and equity-weighted policies. It aims to support the implementation of the Sustainable Development Goals’ (SDGs) pillar on inclusive development. During this internship, I noted the framing of participatory methods for data collection and generation in the International Development sector to be predominantly around ‘small data’ for sustainable development (Best, 2015). The United Nations University for Computing and Society¹⁰ suggests that Small Data empowers individuals and local actors with actionable insights while also assisting national stakeholders with a better

⁸ A hackathon is a design event in which computer programmers, and others involved in software development, collaborate intensively on software projects. The goal of a hackathon is to create usable software or hardware with the goal of creating a functioning product by the end of the event. Hackathons tend to have a specific focus, which can include the programming language used, the operating system, an application, an API, or the subject and the demographic group of the programmers.

⁹ <http://en.unesco.org/inclusivepolicylab/>

¹⁰ <http://cs.unu.edu/>

understanding of the complex and diverse social phenomena. They suggest that Small Data can be sourced informally and dynamically via the crowd, leveraging grassroots contributors, citizen generated data, and social media (Best, 2015; Thinyane, 2017). Such a framing reveals a focus on notions of empowerment, and bottom-up, citizen generated data.

Having discussed the problematic provenance of citizen social science from citizen science (see chapters 1 and 2), the aim here is not to suggest that citizen social science is analogous with citizen science. However, it is useful to examine the ways in which citizen science has been typologised, so as to shed light on how the wide variety of citizen social science projects might also be grouped and categorised. There are many typologies of citizen science offered, for example, by Cooper et al. (2007), Wilderman (2007), Bonney et al. (2009), Wiggins and Crowston (2011), Haklay (2013), and Kasperowski et al. (2017). These classifications highlight aspects such as the level of informal science education needed, the involvement of participants in various aspects of research activity, the purpose of the project, or the main forms such projects take. Haklay's (2013) typology of participation in citizen science provides a grading of categories, from crowd sourcing at level 1, to 'distributed intelligence' at level 2, to 'participatory science' at level 3, to 'extreme citizen science' at level 4 (see figure 1 below). The typology can be used across the range of citizen science activities, and one project should not be classified only in one category. For example, in volunteer computing projects, most of the participants will be at the bottom level, while participants that become committed to the project might move to the second level and assist other volunteers when they encounter technical problems.

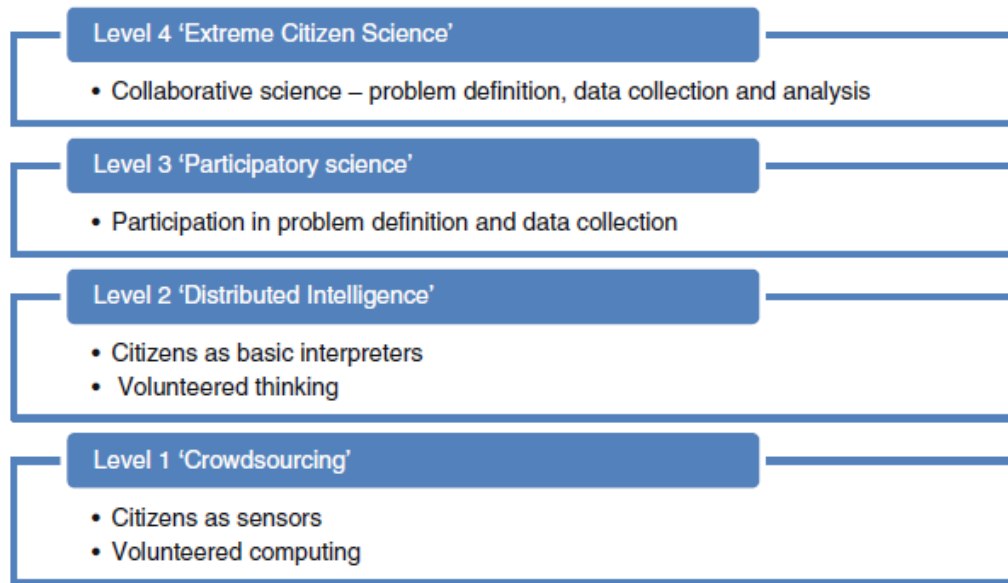


Figure 3.1 Levels of participation and engagement in citizen science

Source: Haklay, 2013

Haklay stipulates that the aim of this particular typology is to reduce the inherent value judgement about participation that is common in many of the other typologies of participation, particularly for example that of Arnstein's (1969) ladder of citizen participation in the planning processes in the United States. Arnstein's ladder shows a series of rungs from placation (informing the public) to involving the public in decision-making, with a strong moral value judgement around public involvement in decision making being a *good* thing (my emphasis). As Nold (2017) notes, these categorisations frame the field as a polarity between research driven by scientists or by the public. My reflections from participating in the citizen science community and my experiences during my internship at UNESCO suggest that such categorisations are messy and not straightforward, with such a polarity being one way in which to frame the approach, but by no means the only one.

Since its initial development in 2013, Haklay's typology, as set out in figure 3.1. above, has been modified to resemble more of an escalator model of engagement in citizen science, as shown in Figure 2. below. The aim of developing the typology into an escalator model is to reflect the variety of citizen science 'journeys' that participants undertake when they take part in a citizen science project. Thus, participants can enter at a level that matches their needs, interests, and abilities, all the while being

encouraged to move beyond their entry point and move ‘up the escalator’. The escalator model shows smaller and smaller numbers of people who are involved in more difficult, detailed or bottom-up citizen science. This links to Kasperowski and Hillman’s (2018) work around the inherent tensions in, and diversity amongst, different epistemic cultures in citizen science projects.



Figure 3.2 The “Doing It Together” Science (DITOS) ‘escalator’ model of engagement
Source: DITOS Description of Action

The escalator model comes from the Horizon 2020 EU funded project Doing It Together Science (DITOS) which takes place from 2016-2019¹¹. The project frames citizen science as empowering citizens in exploring, measuring and experimenting with the world around them. It argues that citizens have a major role to play in addressing the challenges to a sustainable future. The project suggests that it is by ‘doing science together’ that resources and expertise can be combined to raise awareness, build capacity, and innovative lasting solutions grounded in society. As a European-wide project, Doing It Together Science seeks to promote a step change in the way the public is engaged with science and innovation. It aims to move from a model in which scientific research, innovation, and problem-solving is mainly driven by scientific institutions, to one that is based on active public participation in the scientific process. The Doing It Together Science activities constitute an attempt to move beyond more traditional approaches of engagement (e.g. hearings, public meetings or non-interactive exhibits) into direct engagement that builds upon hands-on Do-It-Yourself (DIY), grassroots, and frugal innovation initiatives. The aim is that

¹¹ <http://www.togetherscience.eu>

this move will be done in a way that enables people from all walks of life to contribute at a level of participation that is interesting to them, and also suits their lifestyle.

Nold (2017, p. 61) notes that a key feature of citizen science is

the prevalence of models and taxonomies that attempt to locate the axes of participation...and map a continuum of knowledge and empowerment between laypeople and scientists along a linear scale.

Nold suggests that these models and taxonomies conflate participants engaging in increasingly complex scientific tasks with increasing levels of citizen empowerment. Cornwall (2008, p.281) calls for a focus on the practices of participation, on what people 'participate in and, as a corollary, who participates in which activities and at which stages in the process', rather than on the 'cosmetic rhetoric' that abstracts and idealises participation. Cornwall (2008: p.281) further suggests that this reclaiming of participation

would also help provide a way of distinguishing feel-good talk of 'participation' that has little substance to it in practice, from forms of genuine delegated control that enable people to exercise a meaningful part in making the decisions that affect their lives.

These reflections highlight the way in which typologies which focus on participation, such as those prevalent in citizen science, are problematic and in many instances reduce complex boundary blurrings into static, clear and simple categories.

Green (2010) suggests that the problem is that participation is often approached via notions of Habermas' communicative action (Habermas, 1984) where participation is seen as a universal 'good'. Green (2010, p.1245) suggests that this theorisation means that the researchers focus on abstract advice on participation, rather than carrying out empirical studies, so that

neither proponents nor critics of participation have paid adequate attention to what actually happens when so called participatory approaches are carried out by real people in real places.

This idealisation and abstraction of participation leads to the 'citizen' featuring as a highly specified yet black-boxed entity, whose practices are largely unknown (Nold, 2017). Whilst the field of citizen social science is not as developed as that of citizen

science, there are some interesting reflections that can be drawn, particularly for the social sciences, where participation and participatory methods have long been a topic of research, debate and attention.

On the basis of these critiques of typologies of citizen science, it is worth giving consideration to the Ten Principles of citizen science (ECSA, 2015) that have been published in twenty-six different languages by the members of the European Citizen Science Association (ECSA) Working Group "Sharing Best Practice and Building Capacity". These ten principles of citizen science constitute good practice in citizen science, regardless of the academic discipline or country in which it is applied. They constitute a move away from the notion of a fixed typology, as unpacked above, and comprise a more adaptable conceptualisation of citizen science that is based on practices rather than abstract advice.

In the spirit of conceiving of citizen science as a flexible concept, which can be adapted and applied within diverse situations and disciplines, the question remains of how to create cohesion and identify a common purpose globally, whilst also supporting and enhancing the independence, creativity and bottom-up nature of citizen science. The series of statements, which set out what the citizen science community believes underlie good practice, were developed by networks such as the European Citizen Science Association (Europe), the Citizen Science Association (global), and the Australian Citizen Science Association (Australia). Such networks provide forums through which to exchange knowledge and ideas, identify shared goals and build partnerships together. In this way, the Ten Principles provide a starting point for discussion and debate, and challenge practitioners and their current working practices. The Ten Principles are set out in Table 3.1. below.

1.	Citizen science projects actively involve citizens in scientific endeavour that generates new knowledge or understanding. Citizens may act as contributors, collaborators, or as project leader and have a meaningful role in the project.
2.	Citizen science projects have a genuine science outcome. For example, answering a research question or informing conservation action, management decisions or environmental policy.
3.	Both the professional scientists and the citizen scientists benefit from taking part. Benefits may include the publication of research outputs, learning opportunities, personal enjoyment, social benefits, satisfaction through contributing to scientific evidence e.g. to address local, national and international issues, and through that, the potential to influence policy.
4.	Citizen scientists may, if they wish, participate in multiple stages of the scientific process. This may include developing the research question, designing the method, gathering and analysing data, and communicating the results.
5.	Citizen scientists receive feedback from the project. For example, how their data are being used and what the research, policy or societal outcomes are.
6.	Citizen science is considered a research approach like any other, with limitations and biases that should be considered and controlled for. However unlike traditional research approaches, citizen science provides opportunity for greater public engagement and democratisation of science.
7.	Citizen science project data and meta-data are made publicly available and where possible, results are published in an open access format. Data sharing may occur during or after the project, unless there are security or privacy concerns that prevent this.
8.	Citizen scientists are acknowledged in project results and publications.
9.	Citizen science programmes are evaluated for their scientific output, data quality, participant experience and wider societal or policy impact.
10.	The leaders of citizen science projects take into consideration legal and ethical issues surrounding copyright, intellectual property, data sharing agreements, confidentiality, attribution, and the environmental impact of any activities.

Table 3.1 Ten principles of citizen science

Source: European Citizen Science Association, 2015: <https://ecsa.citizen-science.net/engage-us/10-principles-citizen-science>

An examination of the Ten Principles of Citizen Science highlights the way in which citizen science is a flexible concept, which can be adapted and applied within diverse situations and disciplines. This approach to developing principles for working practices can assist in thinking about the practices of doing citizen social science.

Observations of, and participation in activities within the citizen science community revealed that citizen social science was not really talked about or, if it was, it was predominantly from the perspective of the natural and environmental sciences, with a lack of acknowledgement of, and in-depth consideration of, developments in social science methods and approaches. However, it is important to note that citizen science resists hard definitions, so as to allow for multiple perspectives and approaches to support each other under one banner, which may, or may not, lead to advantageous funding opportunities in terms of citizen science's relationship to policy. It is therefore necessary to examine how citizen social science might work in practice, and the experiences of those participating in such approaches. What are the challenges and opportunities of such an approach in practical terms, rather than just from an idealised and potentially abstracted perspective?

The following section sets out a desk based review of projects that could be conceived of as citizen social science, as an experiment in categorising them into different key aspects.

3.4 Types of citizen social science projects

As stated above, a review of a number of projects that could be seen to be producing a form of citizen social science, was undertaken as part of the scoping work to inform the research design of this thesis. The list of projects is a selection of the most relevant projects to exemplify each different category or type of project, and was developed throughout the four-year life span of the PhD research. From an examination of citizen science platforms such as Zooniverse and Scistarter, it was apparent that such platforms listed very few projects under the heading of 'social science' (see image 3.1 below), or there were more projects listed as being 'social science' (see image 3.2 below), but the projects listed were not immediately apparent as social science. This raises questions around what could be considered to be citizen social science and what are the key facets of such an approach.

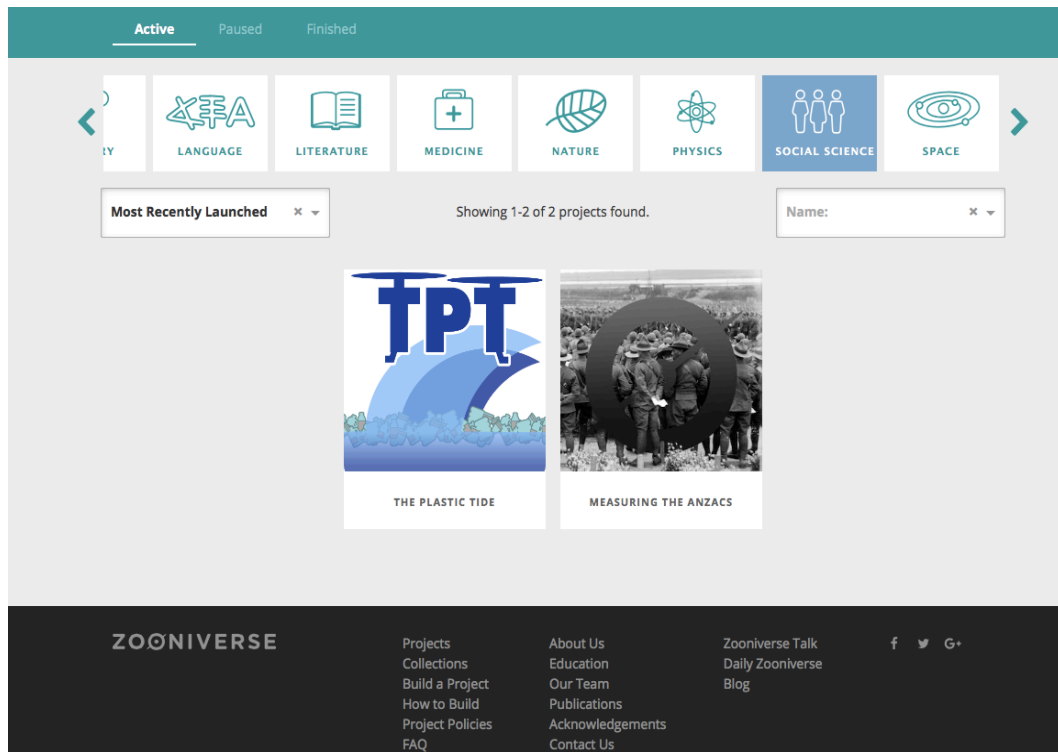


Figure 3.3 Social science projects on Zooniverse.org

Source: Zooniverse, accessed on 16th August 2017

An examination of the 'social science' tab of the Zooniverse platform (see image 3.1.) revealed two possible projects to participate in at the time of access. One, the Plastic Tide project uses drone imagery and machine learning algorithms to create a program to auto-detect, measure and monitor levels of plastics and marine litter on beaches. The participant is asked to tag plastics and litter in the images to directly teach the project's computer program to monitor plastics. The overall aim is to help researchers find out how much plastic litter ends up on beaches. The other project available, Measuring the ANZACS, is a transcription project to explore, analyze, and digitize original World War I personnel files from Archives New Zealand.

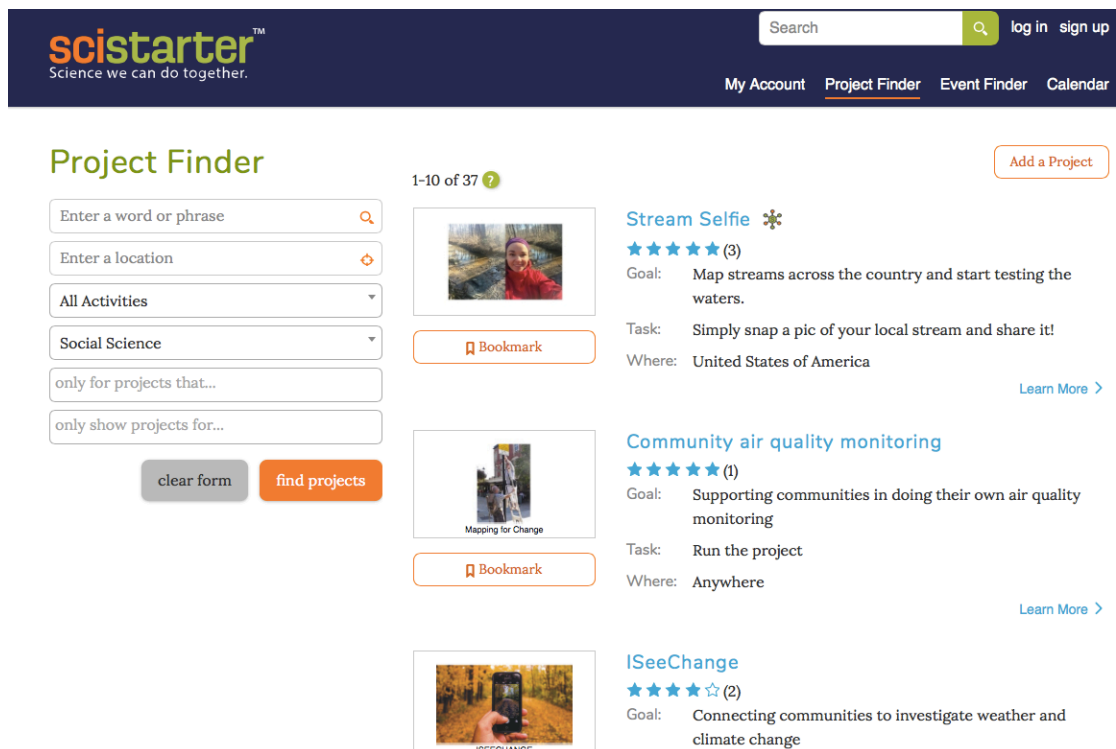


Figure 3.4 Social science projects on Scistarter.com

Source: scistarter, Accessed on 16th August 2017

An examination of the Scistarter platform (see image 3.2) revealed a greater number of projects under the ‘social science’ tab (37 at the time of access) with most projects focussing on issues in the environmental and climate sciences, or a plethora of projects focussed on participant transcription and digitisation of existing archival data; and some projects on focussed on noise mapping. Given the focus on environmental data, it is debateable whether or not these projects could be conceived of as social science, giving rise to reflections about what constitutes social science.

The table 3.2 below sets out a review of types of projects that could be conceived of as citizen social science. Each project reviewed was classified according to how and when it was instigated, the nature of the data collected in the project, and the type of citizen social science the project was classified as undertaking. Compiling such a table allowed for an assessment of the nature of these types of project, to try to understand in more detail some of the commonalities and differences in the way in which such projects operate. The overall aim was thus to identify and delineate the key facets of citizen social science. It is these key facets that drive the empirical work of the thesis, and become the key aspects probed for in chapters 5 – 8.

These projects can be grouped according to different factors, but predominantly around how participants in the projects generate data, and ultimately who the project articulated that it is aimed for – be it the participants themselves, or the organisation driving the project, or another entity such as a researcher, or policy maker. Whether projects can be categorised as citizen-generated social science projects, or citizen-generated projects, that may or may not be social science, the question remains of when do they become social science, does this matter and who is to say?

Rather than solely focussing on the extent to which the ‘citizen’ is involved in participating in all aspects of the project, perhaps another useful way to categorise citizen social science projects is around the type of data generated. This also links to the critique of typologies of participation in citizen science, as set out earlier in this chapter, and the shift in the aim of categorising projects in this way to focus on the practices involved, rather than on the ideal of participation. See Appendix 1 for the full list of projects reviewed.

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Type of project	Description	Examples
Citizen generated data	<p>Citizen-generated data can be defined as data that is produced directly by people and their organisations to monitor, demand or drive change on the issues that affect them. Citizen generated data can be useful in terms of complementing official data sources, plugging existing data gaps or supplementing official reporting when data quality is insufficient. Projects focussed on creating citizen data often entail aims towards empowerment, and engaging citizens in political processes that might otherwise seem removed from their lives. This is a broad category of project. Some projects have more of a focus on enumeration and voice building; these have more of a 'community building' focus. Other projects are focussed on participants using sensors to collect data that helps them find out more about issues they care about.</p> <p>Most citizen generated projects are instigated by NGOS and other small organisations, working collaboratively with the citizens involved.</p>	Datashift (1); Tenison Road (2); Safecast (3); Slumdweller International (4); Fix My Street (5); The Bristol Approach (7); &wider (8).
Citizen generated (online) archive	<p>Projects categorised at a citizen-generated archive are ones where anyone can send in memories, reflections or more specific data requested, to be catalogued and potentially stored in an online archive. Projects seem to have a consistent theme linked to collective memory, and more specifically heritage. Such projects tend to be orchestrated on an ad hoc basis by individuals or groups who are motivated to generate an archive on a particular issue or around a particular place.</p>	Mass Observation (6); Citizen Heritage (11); Election Leaflets (13); Pride of Place LGBTQ Heritage project (15); Harkive (19); Rave Preservation Project (20); Underfall Boatyard Sharing Memories project (21).
Participatory Action Research	<p>Participatory Action Research projects actively engage participants in the research process. Such projects are necessarily messy, with frequent changes in direction over time. Particularly passionate researchers, who care deeply about the cause or people they are working with, often instigate participatory action research projects. They also tend to create strong relationships with people immersed in a process to help change their circumstances. It is through the interactions between participants that they believe that knowledge is generated. The aim of such projects is to affect change, which sometimes calls into question the 'research' aspect of participatory action research.</p>	Focus E15.

Crowdsourcing	Crowdsourcing project tend to take a less formalised approach than, for example, the citizen generated data projects defined above. The projects are more focussing on harnessing the energy of volunteer participants to undertake a particular task whether that is observing something or analysing data online. They are potentially more speculative in nature, rather than having specific research outcomes.	Hush City App (10); No Second Night Out (16); Crowd Sourcing on Mental Health (17); Harkive (19); Transcribe Bentham (24); Satellite Sentinel (25); Slavery from Space (26); Walkonomics (27); Street Link (28); Scenic or not (29).
Citizen generated project for citizens	Citizen generated projects for citizens tend to be organised and run by citizens, without necessarily having a specific research or policy focus. They are instigated by motivated individuals and do not necessarily have research outcomes.	Hollaback (12); Mood Notes (14); Everyday Sexism (18).
Participatory Mapping	Participatory mapping projects entail working with local individuals, community groups and other interested people who want to understand, improve and to map the information that is important to them. Projects tend to be instigated by local individuals or community groups approach an organisation with experience in participatory mapping to develop a project together.	Hackney Wick Community (22); Mapfugees (23).

Table 3.2 Types of citizen social science projects

The projects in this table represent an experiment in categorising different types of projects that could or could not be seen to be forms of citizen social science, or at least are examples of citizen generated data that is not obviously citizen science. Such categorising raises questions for a conception of citizen social science, particularly in terms of the element of social science in the projects. This gives rise to a need to instigate more examples of citizen social science in practice, to better understand the challenges for research design and execution; the ethical issues raised, and how data generated by such an approach might be ‘used’.

3.4 Practitioners' articulations of citizen social science

This section delineates the ways in which people who are involved in projects that could be considered to be citizen social science, understand and describe what it is that they are doing. The views set out in this section are a conceptualisation of the potential of citizen social science by people who are perceived to have some prior knowledge of the issues involved in undertaking them. The interviews highlight how citizen social science is a wide-ranging, diversely understood phenomenon that speaks to communities both within and outside of the academy, and has been co-opted for a range of different purposes. The following sub sections draw out some key aspects of citizen social science and some tensions raised by practitioners around them. The views and responses are set out and grouped thematically. The categories were produced based on a synthesis and analysis of the interview notes. These statements reflect a sense of uncertainty around the precise definition of citizen social science. Taken together, the evidence also indicates an enthusiasm for the potential of citizen social science to generate data, empower participants and tackle intractable social issues.

3.4.1 Multiple definitions - core motivations

Citizen social science was perceived to be a multi-faceted term with a plurality of motivations, including many different approaches within it, with no consistent, fixed definition. One interviewee perceived citizen social science to be:

an experiment at the borders of community crowdsourcing, citizen science and social innovation.

(Head of Research Development, Nominet Trust, September 2014)

These articulations of citizen social science drew attention to the multiple definitions and varied motivations for pursuing such an approach – that it is not only one of data collection but also potentially to drive social change, or as an alternative to official statistics collected by government. One practitioner referred to their perception of the links between citizen social science and design thinking, and the ways in which:

design can be used to provoke reactions, and to experiment or try things out, compared to the more solutions-focussed conceptions of participatory research. Through such a design thinking approach to

citizen social science, people are able to make sense of issues together, and how best to tackle them.

(Research Associate, Open Lab, February 2016)

This articulation highlights notions of working things out ‘together’, which a citizen social science approach could offer. Other practitioners located citizen social science within the realms of design or prototyping, with a ‘maker’ approach to addressing social challenges. The suggestion is that human-computer-interaction (HCI) or design research focuses on the user experience, which is not necessarily a focal point for the social sciences. Another practitioner suggested that:

more attention could be given in the social sciences to the literature and methods around design thinking, particularly around the affordances that devices provide, as well as how they are used and incorporated in everyday life.

(HCI Researcher, High Wire Lancaster, August 2016)

In the field of Science and Technology Studies (STS) much attention is given to ‘devices’ and the ways in which they interact with and impact on those operating them. This is most prevalent in the work on citizen sensing, mentioned in the previous section on types of citizen social science projects. The same interviewee suggested that citizen social science is:

an approach to involving users, or the public, in collecting their own information, as citizen sociologists, about where they think devices could be improved, and how those devices might benefit them in their everyday lives.

(HCI Researcher, High Wire Lancaster, August 2016)

The articulation of the concept of ‘citizen sociologists’ is interesting here and questions could be raised about how to develop such a role and what challenges and opportunities might be entailed. It also drew attention to the experiences and practices of the participant rather than necessarily the researcher, or the technology used in such an approach.

Another tension that arose from the interviews was around the motivations for undertaking citizen social science, and whether such a practice entailed the

engagement of participants in a community of practice or a community of interest.

One practitioner suggested that:

citizen social science is a collaborative community of practice, rather than a community of interest, typical of citizen science platforms such as Zooniverse.
(Head of Research Development, Nominet Trust, September 2014)

The distinction between a community of ‘practice’ and a community of ‘interest’ highlighted the perceived potential for citizen social science as an approach that brings together people with a common concern or passion to learn how to do something better as they interact regularly (Lave and Wenger, 1998; Lave, 1991). The suggestion is that the learning that takes place in a community of practice is not necessarily intentional. Practitioners’ interviews focussed on the ideals of the project of citizen social science, and maintaining open, not fixed, definitions of the phenomenon so as to not pigeonhole it.

3.4.2 Measurement - narratives

Practitioners reflected on the purpose of undertaking citizen social science, questioning whether a project is focused on data collection, and thereby potentially counting something, or is it more focussed on enumeration and gathering evidence or narratives to potentially hold someone or something to account? This also alludes to the difference between data collection and data analysis that some practitioners referred to. One practitioner highlighted a tension between the notion of ‘recording data, information and accounts’, and

recording for some specific purpose, such as to improve community relationships on a housing estate, or to improve the quality of life on the estate.

(Human Experience Designer, Microsoft Research, UK, January 2016)

Another practitioner described citizen social science as:

an approach to equipping people to tell the stories that will make a difference, as a form of citizen journalism, to hold things to account.

(Professor, ExCiteS, UCL, October 2015)

The sharing of stories or personal observations is vitally important, particularly, for example, in a crisis response situation, to better understand the involvement of many

different actors and perspectives. One practitioner referred to ‘a duty to record and gather the stories, or histories’, in this instance of those who may have played a role in responding to a crisis, such as, for example, the way in which the Safecast project came about to monitor, collect, and openly share information on environmental radiation in the wake of the March 11, 2011 earthquake, and subsequent tsunami which struck Japan and the subsequent meltdown of the Fukushima Daiichi Nuclear Power Plant. This led to reflections about whether it necessarily takes a crisis to trigger the creation of a successful citizen social science project, and what constitutes a successful, or indeed unsuccessful, project. One of the underlying notions of citizen social science, as suggested by practitioners, was its potential to create ‘active research subjects’ and to engender a sense of awareness raising about the process of participating in social science research amongst the participants themselves.

Practitioners also raised expressions of concern over the quality of the data produced when non-experts are involved in data collection. One practitioner referenced the potential of citizen social science as a form of citizen ethnography or crowd sourced sociology, which does not necessarily need to use digital technology. Consideration was given to the links between technology and the production of sociological knowledge. Some practitioners reflected on how to use apps to collect sociological information with endless possibilities, so as to develop large-scale data sets of ethnographic information such as images or sounds, to provide rich descriptions that the public could also be asked to help analyse. It is important to acknowledge here that this is already happening at an extremely large scale in commercial research (Thrift, 2011; Savage and Burrows, 2007) (see chapter 1 and chapter 2, section 2.3).

However, one practitioner noted that

much like mapping projects, whilst the potential to map everything, or capture everything, is clearly already there, the potential to analyse the data, or indeed to make sense of it, beyond some basic computer learning, is still not within grasp.

(Project lead, Smarter Manchester, August 2015)

This will be discussed in more detail in chapters 8 and 9. Practitioners reflected on the type of data produced through citizen social science and the way in which some projects might focus on measurement and others on producing different sorts of narratives around a particular issue.

3.4.3 Method - movement

This category came about from the perceived tension in practitioners' articulations about citizen social science being a method for data collection, versus its potential to have a more long lasting impact and affect social change. In many ways, reflected in this category are the tensions between undertaking research and the ensuing action that might take place, debates which are played out in the field of action research, and participatory action research.

Some practitioners reflected on the blurring of boundaries between tools and questions, between personal lives and bigger issues, meaning that:

it is not easy or straightforward to determine the boundaries between 'science' and the 'social', since these are not clear or distinct.

(Professor, ExCiteS, UCL, October 2015)

However, practitioners suggested that the power lies in defining what counts as scientific data in the first place. Questions were raised about the 'sufficient' amount of science or social science in a project, with one practitioner suggesting that:

such a question is bound to an imagined category of what science, or social science, is. However the reality is that projects do not operate like this; they do not follow what we think of as science, and the particular constraints, or fixed methods of science.

(Human Experience Designer, Microsoft Research, UK, January 2016)

This is problematic in the sense that the methods and approaches of science and especially social science are hugely varied. Further questions were raised about professionalism and expertise, and who can determine what constitutes citizen social science or not. An interviewee asked:

does a professional researcher need to be involved in a project for it to be considered as citizen science? The Oxford English Dictionary (OED) states that usually citizen science activities are led by professional scientists.

(Citizen Science Manager, Natural History Museum, November 2015)

The same interviewee questioned whether or not a project has to be 'research' or entail some sort of scientific endeavour to be considered citizen science or citizen

social science? When probed about the meaning of ‘research’, the interviewee went on to suggest:

this means a project needs to have some form of pre-defined research question.

(Citizen Science Manager, Natural History Museum, November 2015)

Many practitioners referred to citizen social science as a method, but specifically one linking notions of public sociology with questions of social justice. This raises questions about whether citizen social science is necessarily a practice committed to social justice. One practitioner suggested that citizen social science could be conceived of as

a method for participatory research, to access hard-to-reach communities, and one that allows for greater reflexivity around the experience of others participating in citizen social science, from the co-researchers, to other participants and contributors.

(Research Fellow, MICRA, August 2015)

Some practitioners also acknowledged how citizen social science could address the issue of research, or consultation fatigue, and its potential to re-inspire people to participate in research. Other practitioners reflected on the notion of citizen social science as being focussed on the ends rather than the means:

Is citizen social science a method and approach to increasing our knowledge and understanding of the world around us? Does this fulfil? Or is it more about the means, and the process of participation in a project, that allows for the potential for participants to reflect on their actions.

(Professor, CMIST, December 2015)

Some practitioners also suggested that citizen social science should be judged by its means, rather than its ends, so as to avoid critiquing the approach too instrumentally, and not understanding it in a more holistic way.

3.4.4 Participation - engagement

This category of reflections sets out how people are recruited to a project and the reasoning behind this – in other words whether someone voluntarily participates in a project for a variety of different reasons, or whether they are actively targeted and engaged and mobilised to take part. This tension played out in the ways in which

some practitioners articulated their thoughts around the underlying purpose of citizen social science. One interviewee suggested:

Citizen social science is worth pursuing to create real public engagement and participation in tackling social challenges. In this sense, citizen social science adopts a community development approach, in terms of building up communities of place or communities of interest, and in trying to solve specific social problems, or specific issues in which participants had a shared interest.

(Head of development research, Nominet Trust, September 2014)

The same interviewee suggested that:

In its idealised form, citizen social science is a participatory approach with experimentation, iteration and community feedback, so as to ensure engagement beyond purely outsourcing data generation, or data collection.

(Head of development research, Nominet Trust, September 2014)

In this sense citizen social science is perceived to have potential as something beyond just the mobilisation of people for data collection, as potential for meaningful engagement in tackling social issues.

Questions were raised about the extent to which citizen social science actually widens participation, and the nature of who participates in such projects. One interviewee questioned:

Do citizen social science projects only cater for some sections of society and which parts of the population are missed out?

(Professor, ExCiteS, UCL, October 2015)

These questions have implications for the extent to which citizen social science can be seen to be a democratisation of social science, as well as the power dynamics at play in knowledge production processes. Reflecting on citizen science, one interviewee questioned this notion of democratisation, stating:

It's quite hard to connect people with policy issues eg clean water, or where food comes from. Citizen science does to some extent democratise science because if you participate you're engaging with the issues and

collecting data... It's a starting point, and the starting point is actually pretty low eg on understanding biodiversity. Should people be worried about the loss of a species? It's quite hard for people to see the knock on effect of things. Citizen science is about being hands on and discovering something for yourself. It's not necessarily direct behavioural change but it might make you care a bit more.

(Citizen Science Manager, Natural History Museum, November 2015)

This practitioner refers to participation in citizen science as a starting point towards engaging more meaningfully in some of the wider policy issues. They refer to citizen science as a means of self-discovery and the first step towards awareness raising and 'caring' about issues a bit more, which may eventually lead to change further down the line. This is an interesting reflection on the potential of citizen social science to engender a sense of personal discovery and sensitising to a particular issue through participation and engagement.

Citizen-generated data is perceived as a useful complement to institutional data, but not a replacement for it. It can highlight issues that are important to people and add their views to higher-level policy debates. It also has the potential to empower people, giving them a way to engage with politics and political processes that might seem far removed from their daily lives. Some practitioners referred to the notion of not just involving people in research, but allowing them to shape the future'. One practitioner raised complaints about the tokenistic nature of some participation projects, and reflected on the necessary conditions to prevent the perpetuation of inequalities in such participatory approaches. Another called for:

greater consideration of the potential to create power differentials in the process of selecting who can participate. What we need is more structural debates around public engagement and the way in which public engagement approaches have the potential to legitimise the failings of the welfare state, by placing a greater burden on the individual.

(Research Fellow, MICRA, August 2015)

In this sense there was a tension arising in the way in which citizen social science was talked about, between the potential for data collection, which potentially places a greater burden on participants, and more meaningful engagement in projects with

the potential to engender empowerment and awareness raising of wider issues. This is discussed further in chapter 8 (see section 8.4).

3.4.5 Data ‘use’ - impact

An important theme that came up in the interviews was around the potential purpose of citizen social science and what the data generated could be ‘used’ for. Discussions ranged from whether citizen social science stems from an ideological belief in the importance of citizen involvement in decision-making, and the democratic project; or whether the project of citizen social science could be a way of mobilising citizens to obtain social data on the cheap. Another suggestion was around the mobilisation of citizens to collect data for campaigning, or to affect social change. Depending on the nature of the project that practitioners interviewed were involved with, some also raised points around the use of citizen generated data in policy. In this sense, those practitioners who work in policy tended to frame the potential impact of citizen social science as being one in which a specific gap in the data might be plugged. Other practitioners focused on the potential of a citizen social science approach as a form of co-creation, in which participants might be more involved in the research design process, as well as the data analysis, and any other outputs or outcomes from the project. Interviews with practitioners on this subject highlighted the divergent views about the ways in which data and policy can come together.

Some practitioners reflected on the potential impact of citizen social science, suggesting that:

it raises awareness about the seemingly small or unconsidered connections between things.

(Citizen Science Manager, Natural History Museum, November 2015)

Some practitioners warned of the need to be careful when mobilising the term ‘activism’ in academia, especially given the complex provenance of such a term, and the lack of clarity around what specifically the term entails. However, practitioners suggested that data activism, or indeed participating in data collection and interpretations could be seen as a form of resistance, or challenge to the traditional

orthodoxies in social science research, and as a potential way in which to affect social change. In this way, the potential impact of citizen social science can be seen to be around renegotiating the relationship between society, individual and the state.

3.5 Conclusion

The tensions set out above reflect the ways in which practitioners, and those beyond the academy, conceptualise citizen social science and what its potential impact might be. These discussions with practitioners draw out the key facets and tensions of citizen social science. They highlight how those involved in this emerging phenomenon describe what it is they are doing, and perceive the potential of citizen social science. They resonate with broader trends in reflexive and methodological debates in social science in that explore the potential of public involvement in social science research.

As noted in the introduction and literature review chapters, citizen social science is an emerging and fast evolving phenomenon. From the scoping work presented in this chapter, it should also be clear how it is both an empirical reality that is observable, and an epistemological, ethical, political opportunity for a transformation of social science. This chapter has drawn out some key aspects of the emergent phenomenon of citizen social science through an evaluation of existing projects that could be considered to be citizen social science, in addition to an analysis of the way in which practitioners reflect on and conceptualise it. These key facets are the aspects that inform the research design of the thesis, as set out in the following chapter, which delineates the social research probes as method for examining how citizen social science works in practice.

This chapter built on the assessment of projects already in existence, which could be conceived of as undertaking a form of citizen social science. It combined those insights with the ways in which others conceptualise citizen social science, based on the practitioner interviews as explored above. This chapter also built on the review of the literature as set out in chapter 2, which delineated how citizen social science is

framed in the academic literature, as well as the academic literature in which citizen social science has been contextualised for the purpose of this thesis.

In many ways, these key facets reflect the idea that citizen social science involves the opening up of the traditional social science research process, and necessarily challenges the traditional power dynamics at play in social science research. Whether or not this thus constitutes the democratisation of social science research is an issue that still needs to be explored more fully, it is not one that this thesis can answer, but the explorations of tensions that citizen social science generates around these key facets in the chapters to come will provide some insights that will allow us to qualify that question further.

Whilst this scoping aspect of the research was necessary to chart the messy terrain of citizen social science, it is also possible to reflect that it raises more questions than can be answered in this thesis. In the development of this thesis, this approach of question-raising became the norm, for the larger part. In some ways, this can also be seen to be a strength of the thesis, to examine, reflect on, and probe for the multiple, complex and exciting aspects of this emergent phenomenon of citizen social science.

The scoping work presented in this chapter gives rise to the research questions, which drive the empirical work of the thesis. The key research question this thesis seeks to answer is how does citizen social science work in practice? This has a dual focus. On the one hand it speaks to the fact that citizen social science is an emergent phenomenon and theorizing its practices and potential must first of all take stock of how it is being practiced. On the other hand, citizen social science is emergent in the sense that its potential is being shaped, and theorising it must be done with the ambition of exploring its potential, as well as the ideologies and values that drive its innovation in practice.

The sub-questions that follow on from this core question are firstly, what challenges are raised in terms of research design and execution? As highlighted in the practitioner interviews, if citizen social science has the potential to be a different approach to engaging citizens in generating data, it is necessary to practically reflect

on what this means for the research process, and the challenges such an approach might throw up.

Secondly, what ethical issues are raised and how might these be addressed? Citizen social science as an approach appears to have much potential in terms of generating new, or previously unobtainable data, but at what ethical cost? In many ways citizen social science is perceived to have possibilities as an ethical method that flattens hierarchies, and opens up the research process. However, what are the experiences of the participants in such projects, and what ethical issues do they raise? Furthermore, what solutions could be offered to such issues, and how might they be addressed?

Thirdly, many of the practitioners discussed the potential ‘use’ of the data generated by citizen social science approaches. How practically can the data generated in citizen social science be ‘used’ and by whom?

Lastly, it is necessary to step back and consider the over-arching impact of such an approach on the ways in which research is undertaken and knowledge is produced. This gives rise to a fourth sub-question of how are citizen social science projects reconfiguring knowledge production processes? What is the potential of this process? What are the risks? The analysis of the scoping work presented above creates foci for the probes, as will be set out in the following chapters on facet methodology and social research probes as method. The next chapter presents the methods used to explore citizen social science in practice – namely social research probes – and the justification for their use, drawing on Mason’s (2011) delineation of Facet Methodology.

Chapter 4. Facet methodology and social research probes as method

Social scientists need to re-imagine themselves, their methods and their worlds if they are to work productively in the 21st century where social relations appear increasingly complex, elusive, ephemeral and unpredictable.

(Law and Urry, 2004, p.390)

What matters then is that the methods used by sociologists examining everyday life are 'fit for purpose'.

(Neal and Murji, 2015, pp.815-6)

4.1 Introduction

This chapter outlines a facet methodology, focused on three main objectives. The first objective relates to developing a way in which to empirically study citizen social science. The second objective relates to problematising citizen social science, so as to enable insight into how citizen social science works in practice. The third objective is to highlight and reflect on tensions in citizen social science more broadly. The chapter then sets out the methods used to explore the key facets of citizen social science – namely social research probes – as an adaptation from cultural probes (Gaver et al., 1999; 2001; 2004) to ensure they are 'fit for purpose' (Neal and Murji, 2015) to deal with the complexities of the phenomenon of citizen social science.

The chapter is divided into six sections: the next section sets out the facet methodology (Mason, 2011), which is used in the thesis as an overarching epistemological approach. The third section positions the methodology and examines the privileged position of the researcher. The fourth section presents the tools of the thesis, namely social research probes, adapted from design. The fifth section sets out the rationale for the specific probes undertaken as the empirical work of the thesis,

and how these were arrived at, before a detailed delineation of the specific methods and approaches used for each of the three probes.

In keeping with the reflexive approach taken throughout this thesis, the sections that account for the methods used are written in the first person, in order to more directly and coherently set out how such methods were used. In using the first person, I can describe the actions I took and decisions I made as directly as possible, without adding another level of abstraction.

4.2 Facet methodology

Facet methodology (Mason, 2011) is a methodological approach designed to engage critically with new forms of data and knowledge. Facet methodology is based on the metaphor of the gemstone; on a diamond, the facets make the key qualities of the stone able to shine. With the stone this entails its purity, and capacity to refract light; with citizen social science, it can be seen to be its hidden potential to transform the epistemological politics of social science. The aim of using facet methodology is to stimulate active, critical and reflexive engagement with, in the instance of this thesis, citizen social science. The main concern of facet methodology is to create ‘flashes of insight’ about an ‘entwined problematic’, rather than, for example, a more descriptive, ‘maximum coverage’, ‘summary of findings’ logic’ (Mason, 2011, p.83). Facet methodology assumes that the world – and what we seek to understand about it – is not only lived and experienced, but is multi-dimensional, contingent, relationally implicated and entwined (see section 1.4 of chapter 1).

Adopting a facet methodology means adopting a pluralist disposition in relation to method, and it requires an investigative epistemology (Mason, 2011; 2007). This is interpreted as being greedy in the search for data, knowledge and insight so as to not rule out a potential data source in an *a priori* way. Mason (2011, pp.83-84) further suggests that, concurrent with data collection, researchers need to be ‘epistemologically and ethically astute and critical in how different forms of data can (or cannot) be used in different kinds of knowledge claims’. For the purposes of this thesis, this methodological approach allowed for a way in which to analyse, compare

and contrast three noticeably different projects and thereby to probe for the key practices, processes, opportunities and tensions of how citizen social science works in practice. Facet methodology entails the idea that researchers carve (or grind) facets of a gemstone that can use many forms of method and data, bringing together different epistemological perspectives in innovative ways (Davies and Heaphy, 2011). Facets involve different lines of enquiry, and different ways of seeing, with the aim of creating a strategically illuminating set of facets in relation to specific research concerns, and questions around how citizen social science works in practice.

Mason (2011, p.84) suggests that 'facets are always simultaneously epistemological and substantive, so facet methodology is not *any* kind of approach to *methods alone*, mixed or otherwise'. In this way, in order to engage effectively with the emergent phenomenon of citizen social science, it is necessary to select from a broad palette of methods and data, and to refashion them into hybrids, or create new versions, such as the probes set out in section seven of this chapter, whilst maintaining a sense of epistemological awareness of the impact of doing so. It also means being able to engage imaginatively with the many ways in which research is done.

4.3 The privileged position of the researcher

In positioning the research, and the role of the researcher within it, it is crucial to recognise that there is no exterior observational point or situation as such. The thesis is an attempt to take seriously that there are different situated knowledges, and that we need to infrastructure social science for contestation and multiple perspectives (Karasti and Syrjänen 2004, Ehn 2008, Björgvinsson et al. 2010, Hillgren et al. 2011, Björgvinsson et al. 2012, Le Dantec 2012, Disalvo et al. 2014). The concept of situated knowledges (Haraway, 1988) locates knowledge in the specific circumstances in which it was produced, exploring how those circumstances shaped it. It can be traced back to 1970s Feminism (Hardy, 2010; Peterson, 2001; Rose, 1997; Harding, 1991; 1987). As we will see in chapters 5 -8, questions of expertise are central here. As such, particular standpoints or intersections become privileged places of knowledge production, precisely due to their specificity and partiality. Researchers and participants are simultaneously both knowers and known, meeting at the intersection

of their life experiences and their own subjective knowledge (Hardy, 2010). In this way, it is necessary to recognise the privileged position of the researcher in undertaking this thesis, researching a subject that they are also inherently implicated in shaping.

The thesis is written from my perspective as a researcher trained in traditional social science methods, and embedded in traditional role within a university. Mauthner and Doucet (2003, p.421) state that ‘the ‘choices’ we make in our research with regard to ontological and epistemological positioning, methodological and theoretical perspectives, and the adoption of particular research methods, are bound up not only with our personal or academic biographies, nor are they motivated exclusively by intellectual concerns’. In this way, the interpersonal, political and institutional contexts in which researchers are embedded also play a key role in shaping these ‘decisions’ (Bell and Newby, 1977; Bell and Roberts, 1984). As a researcher, there were many facets of the gemstone that were new to me: I was new to Manchester, the city where the larger part of this thesis research took place, new to citizen science, and new to citizen social science as an approach. In these ways, it is possible to relate the multifaceted gemstone to my own experiences as a researcher undertaking this doctoral research.

It is important here to acknowledge the pragmatic starting point for the research in this thesis – the PhD proposal was a CASE PhD meaning that it was developed in partnership with the Mass Observation Archive Trust, which led to the framing of the first empirical probe on Mass Observation as a form of proto-citizen social science. The second and third probe were developed solely by me, in the case of the Empty Houses project, and in conjunction with a community development worker, in the case of the Our Manchester project (see sections 3.6.2 and 3.6.3). In this sense my role as researcher was very much an attempt to be a ‘process pragmatist’, which Harney et al. (2016, p.318) describe as ‘an engaged practitioner, skilled in the art of relationship building, listening, collaborating and acting with others.’ They suggest the ‘process pragmatist’ can have significant implications for the place and role of the university, its academics and students since ‘in this model, academics and students can be seen as part of broader social alliances whose members work together to

explore shared concerns, formulate solutions and act upon those ideas' (Harney et al., 2016, p. 318).

The thesis draws attention to the position of the researcher in the research process, whilst also trying to highlight the many multiple perspectives that make up the complexity of the social world. The thesis simultaneously attempts to highlight the modes of analysing, shaping, controlling and manipulating it, without being reductive of it, and all the while trying to infrastructure for the expression and consideration of different situated knowledges in the social sciences, and more agile knowledge. The thesis is an attempt to position the analysis in such a way as to speak to, explore, and shed light on, all these different levels of reflection and forms of knowledge production, and their impact on the potential transformation of social science research, hence the use of Facet Methodology as a methodological approach for doing so.

4.4 Social research probes as method

In more practical terms, the research strategy of this thesis uses social research probes to focus on the particular opportunities and tensions drawn out of the literature and practitioner framing of citizen social science. As set out in the introduction, citizen social science gives rise to many age-old issues and questions in the social sciences, particularly around issues such as reflexivity, expertise, and power dynamics in the social research process. The social research probe, which is inspired from design thinking, and particularly the work of Gaver et al. (1999; 2004) and Boehner et al. (2012), is an information seeking method designed to develop a richly textured understanding of a complex and dynamic setting or situation. Gaver et al., (1999; 2001, 2004) originally conceived of cultural probes as a design process, as part of an EU-funded project, Presence, at the Royal College of Art. The aim was to increase the presence of older people in their local communities using new technology. In material form, the Cultural Probes consisted of packets of provocative information or items that set various tasks for volunteer participants in the project. The responses to these provocations became prompts for the designers to respond to accordingly. The

social research probes used in this thesis build on the recommended adaptations of Boehner et al. (2012) to these initial cultural probes. Boehner et al. (2012, p.199) suggest that probes 'upend the existing roles of researcher and subject', and could be used 'to provoke reflections on the core values and practices of the social sciences' (2012, p. 200). Furthermore, they suggest that 'probe tasks could be the basis for more interventionist studies in which participants are urged to think about their orientations and activities explicitly, or from unfamiliar perspectives' (2012, p.200). The social research probe, as used in this thesis, is a method to study a method. Its use aims for some objectivity whilst acknowledging the subjectivity of the researcher, and how this impacts on the research site.

Such an approach 'aims to open up possibilities, rather than converging towards singular truths' (Boehner et al., 2012, p.185). Probes act as a way to understand phenomena from within – thereby locating the practices of citizen social science within the different settings they inhabit. Crabtree et al. (2003, p.4) suggest that probes allow us to 'develop a more comprehensive understanding of the 'life-worlds' of our users'. Probes produce situated and idiosyncratic clues, rather than authoritative accounts of research, that embrace subjective engagement, particularity and ambiguity (Boehner et al., 2012, p.200). A probe also allows for dialogic exchange and the fostering of a two-way relationship between researcher and participants, thereby enabling an examination of how citizen social science works in practice. In this way, social research probes are designed to explore in more detail the different 'facets' of the citizen social science gemstone.

Probes are prompts and not a script for engagement, with the instructions being carefully worded to allow for a degree of openness and improvisation. The onus is on the participants to make sense of the instruction and thereby to work out the probe (Graham et al., 2007). This outcome has been framed as the value of uncertainty, which it undoubtedly is, but it also is an approach that places this 'working out' at the heart of an ongoing iterative process. Probes engender interpretation, forcing a situation that requires subjective understandings (Gaver et al., 2004; Graham et al., 2007). Furthermore, as Boehner et al. (2012, p.200) note, 'rather than being assimilated to notions of replicability, objectivity and generality, the probes could

operationalise a challenge to such assumptions'. Crabtree et al. (2003, p.7) suggest that with probes 'there seems to be an inherent problem of confusing just what the data is and, with that, just what the focus of analysis is'. They suggest that it is not so much the material artefacts of the probes, such as the tapes, the photos, the booklets and diaries, etc., but rather, the situated character of everyday life that should be the focus of analysis. Whilst some have advocated the use of a form of creative assemblage of things, people, ideas, social collectivities and institutions, to reveal a micropolitics of social research and inquiry (Nold, 2017; Fox and Alldred, 2015), there is still a lack of clarity over the precise analytical approach to be used. However, the analytical approaches used for each probe are set out in more detail in the sections of this chapter (see sections 4.5.1; 4.5.2 and 4.5.3 respectively).

The main reasoning for using probes is three-fold. Firstly, probes operate at the intersection of traditional research methods and everyday life. They originate in design, but can be applied to the social sciences. Furthermore, they promote collaboration, working to actively involve users in the design and/or research process (Crabtree et al., 2003). Probes offer a bridge between qualitative and quantitative approaches, as well as challenging old roles and approaches. Graham et al. (2007, pp.35-36) question 'how do we respond when everyday life is being sustained and even lived through what we are researching? How do we approach analysis when personal data generation is continual and almost effortless? How do we interpret disparate data distributed across time and place?' Probes offer a way of thinking through how to answer these questions.

Secondly, in probing everyday life, probes humanise, focussing on the 'user' or research subject's experience, something often lacking in discourse around datafication where an emphasis is put on data rather than on people per se. As Graham et al. (2007, p.33) warn,

probes not only generate bland accounts of people's individual lives but intensely personal and sympathetic ones. If we are not careful, in our willingness to theorise (or over-eagerness not to)... the individual dies, the human gets mummified in a raft of facts and models, numbers and statistical explanations, sketches and prototypes, claims about order and ordinariness.

In many ways, probes intrinsically avoid this, because they are (sometimes) quite difficult to make sense of and are inherently participatory, and therefore messy and human.

Crucially, and thirdly, probes open up dialogue. They use uncertainty, inspiration, interpretation and provocation. Probes use uncertainty to subvert the traditional relations between researcher and researched, by allowing space for both to work things out together, as ‘a joint and effortful enterprise’ (Graham et al., 2007, p.34). This idea of working something out together is an interesting aspect of the analytical approach in this thesis and will be reflected on in more detail in the empirical chapters (chapters 5-7) and the discussion chapter (8). Probes inherently engender reflexivity, ‘both in the standard social science sense of reflection or contemplation and in the more precise, if more mundane, ethnomethodological sense of making actions accountable (as the actions they observably are)’ (Graham et al., 2007, p.35). Crabtree et al. (2003, p.8) note that many of the methods implicated in the administration of cultural and informational probes are thoroughly ethnographic in character: ‘tied to an array of analytic methods, the use of diaries, notebooks, cameras, and the like has a long history in ethnographic research’. The social research probe is an attempt to elicit a deeper or more enlightening response to a question (Graham et al., 2007).

There are divergent views around the interpretation of what probes produce. Ethnographers (and ethnomethodologists) dismiss the value of generating “abstract, decontextualised models” from social data (Graham et al., 2007; Crabtree et al., 2003). Other social scientists promote the need to generate models and constituent themes from social data in order to promote understanding of difficult, slippery phenomena. Gaver et al. (2004) reflect on the ways in which probes provoke and undermine certainty, with the data generated from them challenging our interpretations, the interpretations of others and our own changing perceptions. In this way, probe materials often serve as triggers for analysis, and ‘in asking people to administer them, we transform participants into active enquirers into their everyday lives, rather than passive subjects of research’ (Crabtree et al., 2003, p.7). Participants are given the opportunity to co-define or discover what might count as data. This draws

attention to the ways in which probes, in and of their own right, are a form of citizen social science that serve as a form of intervention in everyday life, prompting participants to ask questions and participate in the research process. Probes can be a readily accessible and reflexive way to generate dialogue between researcher and researched that is highly attuned to the practical circumstances and needs of both parties. In this way, and in keeping with what both Crabtree et al. (2003) and Fennel et al. (1989) advocate, probes should be systematic, open-minded and openly reported to allow those reading the analysis to decide for themselves how to treat the results. The presentation of the empirical work of the thesis in chapters 5 – 7 is an attempt to do so.

4.5 Probes rationale

Developing a series of probes to explore citizen social science in practice involved a necessarily pragmatic approach (Harney et al., 2016), and thus the probes are iterative, exploratory, experimental, and opportunistic. The rationale for designing the probes in this thesis stemmed initially from seeking to explore how citizen social science works in practice at the different levels of Haklay's (2013) typology of participation in citizen science. As stated in the literature review (Chapter 2), crowdsourcing is presented as a predominant type of citizen social science, where citizens are mobilised to collect data at scale. The literature also highlights the potential for a more participatory form of citizen social science, in which citizens are involved not just in the data collection processes, but also in the research design and data analysis of particular issues.

Table 4.1 below illustrates the type of citizen social science, and sets out the rationale for devising and selecting the specific probes. The rationale for each probe builds on the key facets that were drawn out from the literature review (chapter 2) and from the scoping work (chapter 3). They each have a particular aspect of citizen social science they are probing for, as well as a substantive and a conceptual focus.

Probe	Mass Observation Probe	Empty Houses Probe	Our Manchester Probe
Type of citizen social science	Mass observation and participation in recording the everyday	Crowdsourcing social data to fill a data gap	Coproduced project to challenge narratives about the impact of migration on place
Level on Haklay (2013) typology	Level 1/2	Level 1/2	Level 3/4
Probing intervention	Directives asking Mass Observers about their experiences of participating in Mass Observation	Instructions asking people to send in observations of empty houses.	Interview topic guide. Prompts for collective reminiscing and mapping.
Data	Random sample of responses to 4 directives in 2 nd wave of the project. Interviews with archivists and librarians. Field notes from visits to the archive.	Pilot project to explore how such an approach might work in practice. Media campaign to raise awareness about the project. Data submitted to official project. Walking interviews to unpack the challenges and opportunities to reporting. Policy and practitioner interviews to better understand how the data might be used, and contextual issues with the subject of empty houses.	Recordings and notes from launch events and training sessions. Informant interviews with Stephen, the community development worker coproducing the project. Field notes and observations throughout the project. Video/audio recorded interviews undertaken by participants. Photos and recordings from ESRC Festival of Social Science event.
Substantive probe	For the reflections of Mass Observers on doing citizen social science. Data produced in the project.	Mobilising citizens to send in observations of empty houses in their local area. Citizen involvement in pressing policy issue.	Coproduced project to better understand the impact of migration on place. Data in place.
Conceptual probe	Reflexivity and 'writing ourselves'. Transformative social science. Knowledge production processes.	Engaged citizen. Transformative social science. Knowledge production processes.	Citizen social science as a socially committed approach. Transformative social science. Knowledge production processes.

Table 4.1. Rationale for probing the specific aspects of the three projects

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The following sections delineate the specific methods used in the three probes.

4.5.1 Mass Observation - Probe 1

This section details the probe into the Mass Observation Project (MOP) as an early form of citizen social science. In particular, the probe focused on the experiences of the Mass Observers in participating in the project, their motivations and practices, as well as the nature of the relationship between those organising and running the project, and those participating as observers or social researchers in the project.

Background to the Mass Observation Project

Mass Observation, was originally set up in 1937 by Tom Harrisson, Humphrey Jennings and Charles Madge, and was initially referred to as 'Anthropology at Home' in a letter to the *New Statesman* announcing its existence. The aim of the project at the outset was to encourage people to 'speak for themselves' (Mass Observation, 1937, pp.37-42), by asking participants to record their experiences, thoughts, and observations of what society looked like to them. Mass Observation, in its current form, seeks out lay observations of social life through a volunteer panel's responses to 'directives', sent out three times a year. It is funded by University of Sussex and the Mass Observation Archive Trust funds. The project also frequently collaborates with researchers who are asked to make a contribution to the costs of the project.

The Mass Observation project was very much part of the project of constituting social science as a public making endeavour, with a sense of the individual as part of the mass collective effort. Mass-Observation's mission was to liberate 'facts' about what people did and said in order to 'add to the social consciousness of the time'.

Summerfield (1985, p.440) suggests that a major part of Madge and Harrisson's motivation stemmed from their belief that this social consciousness was being stifled or distorted by those with power in the 1930s (particularly political, commercial, and media power), and that its 'release' would lead to social change. Rather than seeing people as passively led by the mass media, Mass Observation instead saw a huge gulf between mass media representations and the experience and understanding of the

world in everyday life (Highmore, 2002, p.60). The first phase of the Mass Observation project sought to show how the collection of individual accounts of everyday life could contribute to a mass consciousness raising that would challenge the grand narratives and media representation of the time.

The initial aims of the project were to challenge the media representation of 'the people', and to increase self and thereby societal awareness about the narrative power of the press (Highmore, 2002, p.145). Harrison and Madge hoped that by encouraging people to look more closely at their social environment, they would therefore contribute to an increased general social consciousness to 'counteract the tendency so universal in modern life to perform all our actions through sheer habit, with as little consciousness of our surroundings as though we were walking in our sleep' (Madge and Harrison; 1937, pp.29-30). The initial framing of the Mass Observation project was such that Madge and Harrison (1937, pp.29-30) intended for Mass Observation to work as a new research method, making use of not only the trained scientific observer, but of 'the untrained observer, the man in the street'. They suggested that the project was ideally about the observation by everyone of everyone, including themselves. The nature of how such intentions played out in practice are discussed in some detail in the empirical work presented in chapters 5 and 6.

The Mass Observation project can be credited with attempting to bridge the gap between elites (both political and intellectual) and the masses (Casey et al., 2014), charting an interest in the public social sciences, as well as encouraging wider public engagement with social science. In many ways, the project constituted a turning point in social science methods. Yet, despite these bold claims, the Mass Observation project was subjected to significant funding constraints in a context of post-war British politics and culture. Social research shifted away towards the narrower analysis of consumer choice, which arguably is what Big Data largely is, and Mass Observation became a market-research firm in 1949. It was then re-launched in 1981 with a focus on developing a panel of volunteer observers who would respond to 'directives', or open-ended questions, three times a year. Mass Observation continues to exist in this current format today (Lindsey and Bulloch; 2014). In this way, a qualitative longitudinal social data resource was created, with an emphasis on

subjectivity and self- representation, so as to contribute to an understanding of everyday life and change in the late 20th and early 21st century. Sheridan et al. (2000, p.84) note that ‘this phase developed further the reflexive accounts by “ordinary” people of their own experiences and observations and represents a different – more contemporary – view of “ethnography” than the more positivist aspects of parts of the first phase’. In this way, it is important to draw attention to the two contrasting phases of the Mass Observation project, and the way in which the project developed.

Data from probe 1

A selection of responses to four directives in the second wave of the project were analysed, so as to better understand the experiences of the Mass Observers in participating in the project from the perspective of their own writings about their experiences. These particular directives were selected because they asked Mass Observers specifically about their experience of participating in the project, a perspective that has not specifically been considered before in the literature on Mass Observation or the wider social research methods literature (Pollen 2013; Savage, 2009; Bhatti, 2006).

In order to better understand Mass Observation’s operational complexities, I also undertook an in-depth semi-structured interview with a manager and an archivist of the archive. The knowledge and expertise of the archivists forms an important part of the historical meta-data available to researchers (Lindsey and Bulloch, 2014). This interview uncovered the particular challenges of collecting, storing and maintaining the Mass Observation data in greater depth than previously published, as well as the nature of the relationship between Mass Observers and those running the project, from the perspective of those administering the data. I was unable to undertake an interview with the director of the project, despite several attempts to contact her. However, I attended the Mass Observation 50th Anniversary conference in July 2017, and in addition to presenting my work, I was able to attend a discussion session with the director, which was framed as a conversation session, and many general questions about the project were asked. I annotated the discussion and these notes formed part of data of the probe. In the empirical work of the thesis in chapters 5 -7 this

discussion is referred to as 'In conversation with the director of the MOP'. Finally, field notes and observations from visiting the archive to extract the accounts of the Mass Observers, were recorded and analysed so as to build up a holistic description of Mass Observation as a form of citizen social science, and so as to better account for how the project works in practice.

There is relatively little overarching data, or meta-data, on the Mass Observation project, such as systematically collected data on who the panel of observers are, their socio-economic factors, and other relevant details about participants, as Lindsey and Bulloch (2014) note, despite the fact that Mass Observation writing has been re-used and re-analysed by multiple researchers over time (May, 2015; Lindsey and Bulloch, 2014; Pollen, 2013; Savage, 2009 to list but a few). Table 4.2. below shows the year the selected directives took place, the title, number of Mass Observers the directives were sent to, and the response rates for each relevant directive. Whilst a dedicated project has recently taken place to open up, and make the Mass Observation meta-data more readily useable, this information was not available in advance of the current analysis, and up until this point, the general Mass Observation metadata is relatively hard to come by. The project created a searchable, downloadable database for people wanting to identify available writing from writers contributing to the Mass Observation Project 1981 onwards. It is a resource that provides potential users of the MOP archive with information about the biographical/demographic characteristics and writing behaviours of individual Mass Observation Project writers.

Directive No.	Date	Title	Mailed out	Responses	Response Rate (%)
32	Summer 1990	Your views on MO	1222	576	47
41	Autumn/ Winter 1993	The title Mass Observation	533	365	68
73	Autumn 2004	Being Part of research	500	205	41
90	Autumn 2010	Special Questionnaire	473	195	41

Table 4.2 Metadata on directives from the second wave of the Mass Observation Project that were analysed

Sampling of probe 1

A subsample of 10% of the responses, selected with a systematic sampling approach using every tenth response in a randomly ordered data list of responses to each directive, provides a glimpse of the variety of responses in the project. This sampling approach is not without its limitations, and owing to the richness and scale of the data, there is a serious possibility that some of the more interesting responses have not been captured by this sampling method. Table 4.2 above sets out the directives from the second wave of the project that were selected for analysis. Further data on Mass Observers' experience of participating in the project can be found in many other directive responses, since the questions are open-ended and participants are free to write about any topics they chose; however, these four directives are the most overtly relevant to the question of the Mass Observers' positionality in the project, and how they reflect on this issue and the types of epistemologies that are produced. An example of the exact wording of a directive is shown in Figures 4.1 and 4.2 below. The full wording of the directives used can be found in Appendix 4.

MO SUMMER DIRECTIVE 1990

PART TWO: YOUR VIEWS...

We'd like to hear your views on the directives. Obviously if you've only just joined the Project you can't comment on past themes but you can let us know the sorts of things you'd like to write about.

Which themes have you enjoyed most and least? (Please note here when you joined us). What themes would you like us to cover in the future? Do you prefer writing about your own experience (clothes, thrift, shopping, food, health, holidays) or do you enjoy discussing wider issues (general elections, disasters, the EC, the Falklands War*)? Do you enjoy the one-day diaries?

Would you prefer to have a choice of subjects in each directive? Could you manage more than three directives a year?

[Dir. 32 21.5.90]

*(Themes of past Directives)

Figure 4.1 Precise wording of MO Summer Directive 1990: Your views...

Mass-Observation in the 1990s

Autumn/Winter Directive 1993

Part 3: "Mass-Observation"

I was talking about this project at a conference in September this year, when a member of the audience commented that the name "Mass-Observation" was horrible and would put people off joining our project. I have grown so used to the title that I find it difficult to think about it objectively. What do you think? What did you think of it when you first heard the term? Has anyone you know been put off from joining by the title?

It was the word chosen by the original team back in 1937, and it remains the proper name of the Archive, but has it passed its "use by" date?

One problem may be that the word "Mass" has changed in meaning over the years. It used to sound more popular and democratic, now we use it to mean the "lowest common denominator": eg mass media, mass production, mass communication. Do those of you who were around in the thirties agree?

Do we need a new title? What could it be? Would it mean we'd lose our historic connection with the past, and does it matter?

Figure 4.2 Precise wording of MO Autumn/Winter Directive 1993: The title "Mass Observation"

Each citation in the empirical chapters (5-7) is consistently referenced to show the individual participant's Mass Observation (MO) number, gender, age, which directive they responded to and the year in which the directive was issued. For example, '(W640, Female, 65, Title MO, 1993)'.

Analysis of probe 1

A reflexive, inductive and emic approach was used to analyse the data generated by the Mass Observation probe, drawing on thematic analysis (TA), a qualitative data analysis technique used 'for identifying, analysing and interpreting patterned meanings or themes in qualitative data (Braun and Clark, 2013, p.79). TA has been advocated as a phenomenological method (Guest et al., 2012, Joffe, 2011); however, Braun and Clark, (2013, p.79), in contrast, emphasise the theoretical flexibility and independence of TA, and identify it as just an analytic method, rather than a methodology, which most other qualitative approaches are.

Braun and Clarke (2006) suggest that there are six phases of thematic analysis, which can be summarized as follows:

- 1) *Familiarisation with the data*: this includes immersion, and intimate familiarity with the data, by reading and re-reading it, as well as noting down initial analytic observations.
- 2) *Coding*: this is a common element of many approaches to qualitative analysis, as Braun and Clarke (2012) note. It involves labelling important aspects of the data according to their relevance to the research question guiding the analysis.
- 3) *Searching for themes*: this is the active construction and collation of meaningful patterns in the data that are relevant to the research question.
- 4) *Reviewing themes*: the patterns or themes are checked to ensure they work together to tell a compelling story about the data, the themes and the relationship between themes.
- 5) *Defining and naming themes*: the themes are then named according to their main constitutive part – i.e. what makes them what they are.
- 6) *Writing up*: the themes are then written through and interlaced to make up the analytic narrative. Useful quotations or data extracts are also used in support of telling a coherent story about the data.

I undertook these stages of analysis, and the write-up is presented in the empirical work of chapters 5 – 7. The directive responses in the sample were systematically reviewed and grouped according to the emergent themes, ideas, and concepts. These

components were then reviewed and re-evaluated, regrouping as necessary, and gradually refined and linked to other conceptual categories.

In any qualitative study, there is a danger of turning sociological terminology, and the sociological rendering of rich, emotive, individual 'writing' or 'material', into the 'rational' 'scientific' language of 'data' as Lindsey and Bulloch (2014) highlight. Therefore the analysis presented of this probe tried to maintain something of the messy richness of the data, so as to try not to remove its detail, variety and vitality (Casey et al., 2014; Braun and Clark, 2013; Smart, 2011; Savage, 2010). I sought to achieve this by coding and analysing the directive responses, and attempting to hold them in dialogue with each other (Thomas, 2002; Pollen, 2013), and the analysis of the interviews with the archivists and librarians of the project, in conjunction with the other data types of the probe, such as contextual data and field notes.

Ethics of probe 1

This probe used secondary data in the form of the Mass Observers' responses to the project, and therefore did not have any immediate impact on the data or participants in the project. Participants' responses were already anonymised due to the way in which data is handled at the Mass Observation Archive, and therefore the identities of the Mass Observers were protected.

The probe received ethical approval from the University of Manchester Ethics Committee. I was then able to travel to the Mass Observation Archive, located at the Keep, at the University of Sussex, where I met with the archivists and librarians to discuss my approach to the project. As the PhD was a CASE PhD, and my partner organisation was the Mass Observation Archive Trust, negotiating access to the archive and the data was straightforward. I was able to develop a good working relationship with those at the Keep, and access the data.

The responses to the Mass Observation project are stored in boxes in the archive room at the Keep. In order to be able to analyse the responses, it was necessary to scan all the responses to the four directives from the second wave of the project that I

was interested in, as they exist solely on the paper on which they were submitted to the project by the Mass Observers. In digitising the responses by scanning them at the Keep, I was able to generate digitised copies of the responses, which I was then able to give back to the Mass Observation Project after I had finished my analysis. The responses were stored under password protection and in keeping with the university guidelines about data storage.

4.5.2 Empty Houses - Probe 2

The Empty Houses Probe aimed to explore notions of crowdsourcing social data using Haklay's (2013) typology of participation. In this sense, the project did not aim to question whether empty houses exist, but to explore how citizens might be engaged in identifying empty houses, and thereby potentially assisting in tackling a pressing policy issue.

Background to the issue of Empty Houses

In its 2018 report, *Empty Homes in England*, the charity Empty Homes made several recommendations on how to bring more empty homes back into use. The recommendations included that Local authorities should have an empty homes strategy for their area, with the aspiration to reduce the number of long-term empty homes; that Local authorities should take a casework approach with owners of long-term empty properties to encourage, advise and support them to bring homes back into housing use. Employing dedicated empty homes staff can ensure that the council is able to act on information about empty homes, and build up expertise in working with owners, including taking enforcement action where necessary. Furthermore, another recommendation was that Local authorities with concentrations of long-term empty homes should look at how they can support community-based neighbourhood regeneration approaches (Wilson et al., 2018). Whilst such recommendations do not specify the sources of information on empty homes, or the types of community-based neighbourhood regeneration approach, it is clear that the issue of empty houses is a pressing issue.

Charitable organisations such as the Empty Homes Agency¹² have analysed the publicly available data on empty homes in the UK. Their analysis raises questions around whether the measures and ways in which the official figures are collected are the most effective ways in which to generate an understanding of the 'reality' of the empty houses situation in the UK. The Empty Homes Agency has been campaigning to tackle the issue, by both providing data analysis and reports on the issue of empty homes, using the official statistics, as well as launching media campaigns such as Empty Homes week¹³ to raise awareness about the issue and to provide suggestions of what can be done.

Other organisations, such as the Empty Homes Network¹⁴, has its roots in the Local Authority Empty Houses network and works on the issue of empty houses, but mainly in a capacity to support practitioners. The Empty Homes Network is the successor to the National Association of Empty Property Practitioners (NAEPP), established in May 2001 to support people involved in delivering empty property strategies. It was launched by empty property practitioners with the support of government ministers, the Housing Corporation and the Empty Homes Agency. Primarily, the Empty Homes Network aims to foster mutual support and understanding amongst Empty Property Practitioners, and to promote policies and practices which offer effective responses to the challenges presented by empty property.

An approach to crowdsourcing data on empty houses is not new – for example George Clarke, the British architect and TV presenter, mounted a large scale public campaign in 2011 to raise awareness about the issue of empty houses and to encourage people to send in their observations of empty houses either online, or via a hotline (Clarke, 2011). His show 'The Great British Property Scandal' (2011, transmitted on Chanel 4), and its BBC counterpart 'The Empty Homes Show' (2011), both explored the depth of the housing crisis and what can be done about empty homes. Furthermore, In April 2012 the Coalition Government appointed George Clarke as its independent empty homes advisor. His role involved promoting bringing empty homes back into use;

¹² <http://www.actiononemptyhomes.org>

¹³ <http://www.emptyhomes.com/empty-homes-week.html>

¹⁴ <http://www.ehnetwork.org.uk>

raising public awareness of the benefits of bringing empty homes back into use and encouraging people to report empty homes in their area; encouraging councils, housing associations and voluntary groups to identify innovative and good ideas and sharing this across communities; challenging Government and other public bodies to ensure publicly-owned homes are not left empty; and exploring whether current plans for demolition in councils could be scaled back (Wilson et al., 2018; DCLG, 2012).

Most local authorities have a specific team dedicated to the issue of empty homes, with these teams running their own campaigns. Furthermore, every local authority website has a page with specific information about how to deal with empty houses and the opportunity to report any empties. The official data on empty houses is calculated via council tax payments and crosschecked with data from the Land Registry (Empty Houses Agency, 2016). The Empty Homes Agency's analysis draws attention to issues such as the potential misclassification of derelict properties, and undercounting due to exemptions from council tax payments or under-utilised properties not counting as vacant for council tax purposes.

The aim of the Empty Houses probe was not to duplicate these previous efforts, but to probe the process of reporting an empty house to better understand the participants' perspectives in the process and to prompt an examination of the barriers and obstacles to reporting, since many of the campaigns mentioned are ongoing and with mixed success. Furthermore, it became apparent during the interviews undertaken with the practitioners and policy makers, as detailed below, that there have been a range of historic projects on the issue of empty houses and how to tackle them, but they have not been re-examined. The lack of systematic evaluation of such projects means that there is a growing field of unevaluated projects, and a lack of attempts to find out why certain approaches have proved more successful than others.

Data from probe 2

The empty houses probe consisted of the following different aspects and stages:

- a) pilot project to explore how such an approach might work in practice
- b) campaign to raise awareness about the project
- c) data collection window
- d) walking interviews to unpack the challenges and opportunities to reporting
- e) policy and practitioner interviews to better understand how the data might be used, and contextual issues with the subject of empty houses

It is worth noting that the probe was iterative and required modification as it developed. Since there were not many data submissions to the project, it became necessary to undertake a series of walking interviews to unpack some of the barriers and issues with participating in the project, and to shed light on the practice of observing and reporting empty houses.

a) Pilot project

A pilot stage of the project was run for two weeks, and responses were sought from five participants, selected at random, in order to determine the wording of the instructions and to see what sort of data was submitted. The results were monitored and the categories and wording of the instructions altered appropriately. The instructions were then set up on a Wordpress blog page as per the screenshot of the blog in Figure 4.3.

The image shows a screenshot of a Twitter thread and a project description. On the left, a Twitter interface displays a tweet from Mark Hemingway (@MarkHemingway1) retweeted by emptyhousesproject. The tweet text reads: "Over 600,000 properties in England are empty - around 200,000 of which have been empty for over 6 months. Visit emptyhomes.com". Below this is a tweet from emptyhousesproject (@EmptyHousesProj) stating: "Towns & cities in north & Midlands filled top 20 list of LA areas w/ highest number empty homes #ehproject #emptyhouses". To the right of the tweets, the title "Empty Houses Project- Can you help?" is followed by a paragraph explaining the project's goal: "The Empty Houses Project needs citizens' observations of houses that no one is living in, or which may have been left empty, to try to spot national trends in home usage, and to find out which homes could be brought back into use. Such information is often difficult to capture and isn't fully reflected in official statistics." Below this is another paragraph: "600,000 residential homes are thought to be unoccupied in the UK, and current data shows that the North of England tends to have a larger proportion of unused residential properties than the South. However, this data is based on Government statistics, which do not show patterns of houses which are underutilised – such as rarely used second homes – or merely appear to be empty." A call to action follows: "Have you noticed any empty houses in your local area? Support #EHproject by recording your observations in this [form](#)." The final paragraph states: "The Empty Houses Project is a form of citizen social science that explores the generation of tangible approaches to an incredibly complex situation that is the current UK housing crisis."

Figure 4.3 Probe instructions for reporting empty houses
Source: <https://emptyhousesproject.wordpress.com>

b) Campaign to raise awareness about the project

In order to generate as much interest and awareness about the project as possible I developed a systematic promotional campaign. I used social media platforms such as Twitter and Facebook to regularly promote the project. I started conversations on Twitter, intervened in other discussions and linked the project to different posts that were relevant to the aims of the project. I also directly messaged housing and homelessness organisations and campaigners, commenting on their posts and sharing news articles and relevant events via social media platforms.

I also sent out emails to university lists and contacts about the project, asking if people had noticed any empty houses in their local area and to send their observations in to the project. I printed flyers and distributed them in public places, on public notice boards and in cafes/bars and other social spaces across the city.

In terms of other forms of media, I wrote blog posts for the Policy@Manchester blog, outlining the key issues around empty houses and what can be done with them, and for the Big Issue North, in the 'Why Don't We...' column. I appeared on a local television station That's Manchester TV for their Big Debate show to discuss the

project and the issues surrounding empty houses. There was also a news feature on the same station about the project, with the aim of trying to encourage people to send in observations of empty houses in their local area.

To further generate interest in the project, and add to data collection on the state of the housing sector in Greater Manchester, I attended many events, discussions, workshops and conferences related to housing and homelessness in the Greater Manchester area. I informed and liaised with the Greater Manchester Housing Action Network, a newly formed group of activists trying to raise awareness and undertake action around housing issues in the Greater Manchester area, to try to get more support from housing activists working on related issues. I received a variety of replies from people offering to help document the project, to others offering information on different sorts of data available, or also to talk about existing projects that were taking place. I also observed and intervened in many debates on social media, thereby observing how others represent housing issues via these media, and adding to the returns from the probe.

Setting up and running the Empty Houses project gave rise to reflections around expertise and control of knowledge, particularly in terms of the media campaign, and how I almost became a representative for an important policy area when I was by no means an expert in prior to the project (see Chapters 5 – 8).

c) Data submitted to the project

The project was initially open for a period of three months. A total of 20 responses were submitted to the project in that time. The project remained open for a further month in an attempt to allow for further submissions to the project. The data was collated via the online Google form (see figure 4.4) and then downloaded and stored on a password protected hard drive.

The image shows a screenshot of a Google Form titled 'Empty Houses - Probe 2'. The form is white with a light gray border on the right. It contains several sections with bold headings and text input fields. The sections are: 'Address' with a 'Short-answer text' field; 'Postcode' with a 'Short-answer text' field and a three-dot menu icon to its right; 'Type of house' with a list of five options: '1. Detached', '2. Semi-detached', '3. Terraced', '4. Flat/maisonette', and '5. Other'; 'What makes you think it is not being used?' with a 'Long-answer text' field; 'How long do you think it has not been in use?' with a 'Long-answer text' field; 'Have you reported it to the Council already?' with a 'Short-answer text' field; and 'Any other information?' with a 'Long-answer text' field.

Address
Short-answer text

Postcode
Short-answer text

Type of house

1. Detached
2. Semi-detached
3. Terraced
4. Flat/maisonette
5. Other

What makes you think it is not being used?
Long-answer text

How long do you think it has not been in use?
Long-answer text

Have you reported it to the Council already?
Short-answer text

Any other information?
Long-answer text

Figure 4.4 The online Google form for reporting empty houses online via the project website

d) Walking interviews

Despite a relatively extensive campaign to promote the Empty Houses project and to ensure that information about the issues and how best to report were in the public domain, the project only received 20 submissions. Therefore I decided to adapt the probe by undertaking a series of walking interviews with people who had already submitted data or who were involved in housing activism, to better understand the barriers to reporting and any issues participants may have had. These people were selected, rather than, for example, those who had not participated in the project, as the aim was to better understand how participants had gone about observing and reporting empty houses, and any barriers they might have experienced in doing so. In this way, the walking interviews became a rich data source, allowing for a clearer

understanding of the process of reporting empty houses, and thereby participating in citizen social science. Furthermore the walking interviews allowed for dialogue and reflections on the approach, beyond simply setting up the project and my own participant observations of doing so, since these walking interviews were a form of 'working it out' together with the interviewees.

There is a long history in ethnography of researchers 'walking alongside' participants in order to observe, experience, and make sense of everyday practices (for example Evans and Jones, 2011; Carpiano, 2009; Anderson, 2004; Kusenbach, 2003; Reed, 2002); and develop live methods (Back and Puwar, 2012; Clark and Emmel, 2010) and mobile methods (Büscher et al., 2010; Buscher and Urry 2009). Walking interviews were preferable over static interviews in this instance for a number of reasons: the method allows participants to potentially have a greater degree of control over the research process, particularly in deciding where to take the researcher (Clark and Emmel, 2010). Also the participant can show, rather than describe, the environments the researcher is interested in, placing events, stories and experiences in their context which can act as a prompt to participants and help participants to articulate their thoughts. It can act as a method to engage with our identities as reflected in our surroundings (Crivellaro et al., 2015). In this way, the participant's narratives, told in their lived environment, can add detail to the researcher's understanding and insight. In many ways, the route of the walk, and the environment of the locations walked through, becomes a form of elicitation process, prompting further areas of discussion and questioning that might not have happened in a fixed interview setting. Rather than an individual activity, the walks can be seen as as collective, relational and dynamic endeavors (Suchman, 2000), aimed at creating collective experiences and opportunities for dialogue (Crivellaro et al., 2015). This means walking interviews can provide opportunities for the serendipitous and the unanticipated things to occur, as well as throwing up issues of contradiction, factors which are also the case in static interviews, but which are more likely to come to the fore in walking interviews.

Eight walking interviews were undertaken. Demographic details of the participants are shown in table 4.3 below. Participants were recruited based on whether or not they had shown interest in the project and potentially already submitted data, or were

involved in different housing related projects or were activists working to affect change in relation to housing in Manchester. Participants were asked if they had potentially noticed any empty houses in their local area. I then asked them to lead me there, allowing them to chose the route and to raise awareness about any issues or topics as we walked. The walking interviews generally lasted for about one hour and, as the interview progressed, the conversations developed into more in-depth discussions around whether the activity we were undertaking could be considered to be social science and what participants understood by the term citizen social science. The interviews were recorded and transcribed for analysis. The process of recording was easier than expected, owing to the quality of the sound recorder used (a Zoom H4) and no significant issues of inaudible recordings occurred.

No.	Age	Gender	Occupation	GM Area
1.	35	M	Software developer	Ancoats
2.	33	F	Postgraduate researcher	Whalley Range
3.	34	M	Third sector worker	Withington
4.	40	F	Social policy researcher	Kersal
5.	26	F	Housing Charity worker	Stretford
6.	30	M	Postgraduate researcher	Longsight
7.	24	M	Housing Activist	Levenshulme
8.	22	M	Housing Activist	Rusholme

Table 4.3. Demographic information of walking interview participants

Two interviewees who were approached to be interviewed declined to take part, giving the reason of having a busy schedule and not being available in Manchester during the period in which the walking interviews were taking place (these are not included in table 4.3 above).

e) Policy and practitioner interviews

In order to probe further into the different perspectives and types of knowledge about the issues of housing and empty houses, and the processes of identifying empty houses, I undertook a series of nine one-hour long, semi-structured interviews with housing practitioners and housing policy officials. These are listed in table 4.4 below. In the instances in which I approached potential interviewees, I emailed them to ask whether they would be willing to participate and acted according to their responses. In some instances potential interviewees approached the Empty Houses Project, either via social media, email or via the blog page, asking questions about the project. In responding to such queries I was able to establish a dialogue with them and to then propose an extended conversation either face-to-face where possible, or over the phone/Skype as an alternative. In most instances, the interviews were conducted over the phone, or via Skype. Where they were conducted face to face, they were recorded and transcribed. Those conducted over the phone or Skype were not recorded, but instead I took extensive notes during the conversations. These interviews enabled a deeper understanding of the issues surrounding empty houses more broadly, as well as shedding light on how the data generated from the project might be used, and any other issues surrounding the processes of identifying and reporting observations, beyond those discussed in the walking interviews.

No.	Organisation/Individual	Type of organisation/ Role of individual
1.	Empty Homes Agency	Campaigning charity
2.	A sense of place	Community campaigner
3.	Empty Homes Network	National association
4.	Student Union	Student Union
5.	Generation Rent	Housing activist group
6.	Local Authority research team & Empty Houses team	Local authority
7.	Homelessness Charter	Local councillor
8.	Empty Houses campaigner	Ex-Empty Houses Agency
9.	Greater Manchester Housing Action Network	Network of housing activists

Table 4.4. Empty Houses probe – policy and practitioner interviewees

Sampling of probe 2

It is not possible to define the target population with such a crowdsourcing social data approach to citizen social science. Therefore, a convenience sampling approach (Etikan et al., 2016) was taken, on the basis that anyone and everyone was invited to submit their observations of empty houses to the project. Convenience sampling differs from purposive sampling in that expert judgment is not used to select a representative sample of elements (Battaglia, 2011). Rather, the primary selection criterion relates to the ease of obtaining a sample.

Analysis of probe 2

To analyse the data from the probe, I used a process of thematic analysis to draw out themes, and review them, before then going back to draw out the themes in more detail and depth and richness. At the appropriate stages of the probes where interviews were undertaken, I transcribed the interviews, generating transcripts that were then set out coherently, thoroughly read and digested. I wrote memos as I read and coded the data using open, and selective coding, following the stages recommended by Braun and Clarke (2006) as set out in section 4.5.1 above. I did not use specific software such as MAXQDA or NVivo to analyse the data as I preferred to code the data by hand using my own coding systems and processes. I was able to check some of the wider contextual issues and preliminary themes in some of the interviews with policy and housing practitioners. These transcripts, in conjunction with my field notes and observations, were systematically reviewed and grouped according to the emergent themes, ideas, and concepts. These components were then re-evaluated, regrouping as necessary, and gradually refined and linked to other conceptual categories. The aim of this approach was to hold the data themes and emergent notions and theories in a consistently dialogic relationship (Thomas, 2002; Pollen, 2013) by combining analysis of the interviews and observations, in conjunction with other data types, and contextual data and field notes.

Ethics of probe 2

Probe 2 received approval from the University of Manchester Ethics Committee. People submitting to the project were able to leave their name and email if they

wanted to be contacted again. The project website explained that participation was based on consent-first. If they did so they were sent an information sheet about the project, which acted as post-hoc consent. This will be discussed in more detail in chapter 6. This data was securely stored on an encrypted hard drive, separately to the data on empty houses. However, the main aim of the project was to gather geographically locatable data in the form of postcodes. I also provided clear contact information on the website should anyone have any questions or issues they wanted to raise about the project.

During the pilot there was much discussion with those that piloted submissions around issues to do with the potential for inciting civil disobedience and also around some of the wording of the project, as I had framed the notion of reporting empty houses as being part of people's daily activities. However, some pilot respondents did not agree with this, suggesting that an aspect of being out of the ordinary was necessary. The wording of the instructions was modified to reflect these discussions. There is also a very real potential for researcher bias in terms of how I framed the wording of the instructions for reporting empty houses, and also how my inexperienced perceptions may have affected how respondents provided their data. For this reason the pilot was particularly important to mitigate some way towards such issues of bias. Such issues will be discussed in more detail in the empirical chapters 5-7, and also in the discussion chapter (8).

In the case of the walking interviews, I anonymised the interview transcripts to protect the interviewees, and any data on empty houses that we observed on our walks were added to the project. One of the issues with walking interviews is that the research site is mobile and on the move. While the process of investigation was anticipated and planned, the usually messy, unpredictable and serendipitous nature of empirical realities also redefined the terms of the research and subsequent representation in the write up (Marcus, 1998), as new questions, threads and insights were closed and opened up along the way. The Empty Houses probe highlighted that a range of complex ethical issues arise when doing citizen social science, even at a 'low' level of engagement (see Chapter 6).

4.5.3 Our Manchester - Probe 3

The third probe examined how the Our Manchester project worked in practice, and how it developed and evolved from November 2015 to the end of the summer of 2017. The aim of the coproduced Our Manchester project was to document the impact of migration on notions of community and place in Moss Side, Manchester from 1950s to the present. The project was jointly developed with a community development worker in Moss Side, as an in depth collaboration, with the aim of capturing everyday life in Moss Side as an alternative to the narratives perpetuated in the media, or held in state archives. The probe aimed to explore coproduced citizen social science, at the higher level of Hakaly's (2013) typology of participation in citizen science, exploring citizen social science as a more socially engaged approach, where the participants had a greater involvement in the research design stage and other aspects of the research process beyond data collection.

Background to *Our Manchester* and Moss Side, Manchester

Moss Side holds a particular place in the geographic and social imaginary of race in Britain. Slum clearance, race riots, guns and gangs frame commonly held assumptions about Moss Side. According to the 2011 Census, nearly 19,000 people lived in Moss Side ward (Office of National Statistics, 2016). Perhaps the most surprising information available from the census was the migration history of people living in Moss Side, with 46% of residents born abroad.

Moss Side lies approximately one mile south of Manchester city centre along an arterial road running from the centre to the South Manchester suburbs and the airport. It is bordered to the east by the university district with two large higher education institutions, a science park and major teaching hospitals. Moss Side remains an area of high unemployment and deprivation (Hudson et al., 2007), despite seeing substantial regeneration activity (Rahman, 2010). It also became notorious in the early 1990s as a centre of gang and gun crime, with sensationalist media reporting making comparisons with South Central Los Angeles and other US 'black

ghettoes'. As Taylor et al. (1996) argue, such stories were a gross over-exaggeration of the actual extent of gun crime.

The latest version of the Neighbourhood Profile, available on the Manchester City Council website, states that the population living in Hulme, Moss Side and Rusholme, is characterized by a *higher* than average proportions of people aged 16-24 years; and a *higher* than average proportion of people whose ethnicity is not 'White UK' and who cannot speak English well or at all (Neighbourhood Profile Report, 2016). According to a Mosaic report from 2015, the authors estimate over 60% of households in Moss Side are likely to contain people whose social circumstances suggest that they may need high or very high levels of support to help them manage their own health and prevent them becoming high users of acute healthcare services in the future. Residents from the area wanted to develop a project at the newly refurbished community centre in the middle of Moss Side, that recognised this reputation and the stigmatising effect it has had on the neighbourhood and by association the people who live there.

Furthermore, according to a 2015 Mosaic Profile, Moss Side has an aging population, with a large percentage of the elderly coming from the wave of Afro-Caribbean immigrants that came to Manchester in the 1950s. In addition, there are a large number of refugees living in NASS housing and new immigrants from Africa (there is a large Somali population) and the Middle East (e.g. Libyan diaspora) (MacGregor and Pardoe, 2018). The area is also home to a large number of families in private rental or housing association properties. MacGregor and Pardoe (2018) also note that although it is a highly transient area, with a loss of 'social capital' in recent years – which they define as a loss of connections within and between communities, and with external change-makers - there is also a strong core of active, long term residents who take part in residents' associations, faith groups and other community-based organisations.

Informants

I was introduced to Stephen (name changed), a community development worker in Moss Side in November 2015 by a colleague, Peter (name changed), who had previously undertaken research about the private rental sector in Manchester. My colleague Peter mentioned that Stephen was looking to do a project to develop interest in the new community centre that he was refurbishing in Moss Side. There were also frequent meetings and discussions in many different contexts (from the social centre, to the pub, to Manchester Metropolitan University, to formal and informal meetings) to establish trust and connections with Stephen. The life course of the project was slow – it took the best part of six months to establish a solid working relationship with Stephen as a basis of trust and connection needed to be established before proceeding with developing and shaping a project. Following three brief meetings with Stephen to discuss our respective aims and interests, as well as suggested approaches, Stephen organised a launch meeting, where he invited colleagues, contacts in the community, friends, and anyone else he thought might be interested in participating in the development of a project.

Data from probe 3

The following types of data were collected during the Our Manchester probe:

- a) Recordings and notes from launch events and training sessions
- b) Informant interviews with Stephen
- c) Field notes
- d) Video interviews undertaken by participants
- e) Photos and recordings from ESRC Festival of Social Science event

A brief chronology of the project, including key stages and events, number of attendees and dates of these is shown in Table 4.5 and reflected on in more detail below. It is worth noting that the methods used and approaches taken developed and changed as the project went on. This is reflected on in more detail in chapter 9 (section 9.6), the conclusion to the thesis.

Date	Stage of project or event	Aim and who involved	No. of attendees
March – June 2016	Meetings to discuss project development	Meetings with Stephen to discuss how to develop a citizen social science project. In attendance: Stephen, Peter and AA	3
30 th June 2016	Community launch event	Event to announce the intention of doing a project with the community, to generate interest in the project and to recruit participants. In attendance: Stephen, AA and community members	20
July 2016	Thematic Workshop	Workshop to develop themes; areas of interest and title of Our Manchester project. In attendance: Stephen, Peter, AA, and participants	8
July 2016	Ethics and consent workshop	Training workshop to discuss ethics and consent In attendance: Stephen, Peter, AA, and participants	8
August – November 2016	Drop-in sessions at the social centre	For local residents to find out more about the project, to share accounts and narratives, and to donate photos or other artefacts that residents might want to bring in. Also for participants in the project to discuss any issues they might be having with undertaking the interviews. In attendance: Stephen, AA, participants	2-10
October - November 2016	Preliminary resident interviews	Semi-structured interviews with local residents that were filmed or recorded to share experiences of living in the community from 1950s to the present and how the area may have changed. In attendance: Stephen, participants	5
11 th November 2016	Community event to discuss project	Community event where local residents were invited to share food, see photos some residents had donated of the area, review	20

	developments	participatory map of some of the key buildings/places that had come out of some of the preliminary interviews, and to discuss the project, show videos and photos collected and generate more interest in the project. In attendance: Stephen, AA, and participants	
December 2016 – December 2017	Project on-going	Community development worker and other residents who had participated in the project continued to have discussions and meetings at the centre to share memories and accounts of how Moss Side had changed. In attendance: Stephen and participants	Not known.

Table 4.5 Stages of Our Manchester project chronologically**Project development meetings**

I initially met with Stephen three times to discuss how we might best work together to undertake a project of mutual interest to us both. Initially Stephen was keen to do a project that would generate interest in the newly refurbished social centre he was running, and bring some of the local residents to the centre to spend time together. In these meetings, we discussed our ideas and intentions with the project, our mutual views about community work, the role of research and other issues that may have been of concern to us. The project was jointly developed and shaped by both our interests; the balance of interests and power was a continually negotiated process through discussion and communication (see chapters 5-7).

Community launch event

Stephen organised a launch event for the project, with the aim of generating interest in it, and recruiting participants to work with us to take the project forward. The launch event was held at the social centre and lasted an hour. Stephen promoted the event amongst his contacts and networks in the area, and the event had twenty attendees. Stephen and I presented our initial ideas for a project to the attendees and asked for feedback, ideas and whether any of those present would want to get

involved in developing the project with us. The shaping of the project was undertaken collectively with the participants in the events that followed the initial launch event.

Thematic workshop

Following the launch event, those interested in being more actively involved in the project were invited to attend a workshop to identify a number of areas of interest for the project. Eight local residents attended the workshop, and a wide-ranging discussion at the meeting entailed the sharing of the experiences of participants and their families. These included coming to the UK, schooling and racism, supplementary schools, youth clubs and community centres as well as changes through clearance and regeneration. The presentation of information about migration and diversity in the area led to further discussions about ways to make the project inclusive of those who now live in Moss Side. The following areas of investigation were identified with the aim of capturing stories, recollections, reflections and memorabilia to enable re-telling of accounts and experiences:

- **Arrival:** coming to Moss Side, to England
- **Settling down:** finding somewhere to live, work and choosing schools, building a community
- **Growing up:** schooling (both state and supplementary, youth clubs and community centres, churches)
- **Shocks:** major events (may include housing clearances in Moss Side and then in the regenerated Hulme, 1981 riots, guns and gangs as well as more personal experiences)
- **Moving on:** places that family members moved to, their reasons and experiences after moving of Moss Side and where they went to
- **Ageing in place:** the experiences of older people living in Moss Side now

The aim of these investigations was to gather accounts of the experiences of people currently resident in Moss Side about the ways in which the area may have changed.

The interview topic guide can be found in Appendix 9 and the interviewer check list in Appendix 10.

Ethics and consent workshop

A training session at the community centre on ethics and consent was arranged with the same eight participants from the thematic workshop, at the end of the latter workshop. Of the eight participants who attended the thematic workshop, four were able to make the training workshop. However, three new residents attended the training workshop. The aim of the workshop was to discuss interview skills, ethics, consent and also data storage. At this stage of the project, it was envisaged that participants would attend the training workshop, so as to become citizen social scientists, and for them to go out into their neighbourhood to interview friends, relatives, neighbours and other members of the community to gather accounts of how the area may have changed from the 1950s to the present. The community development worker led a discussion at the training workshop about how best to store and make use of the data. It was proposed that an archive of the accounts could be created and hosted at the community centre, so that the recordings would be available to listen to when visiting the centre. An example of a participant consent form can be found in Appendix 8.

Drop-in sessions

Drop-in sessions were held at the community hub every two weeks for the four month duration of the project, as an opportunity to meet interested people, to share accounts or stories about Moss Side past and present, and to generate interest in the project, as well as to contribute to the use and dynamism of the newly refurbished community centre itself. These sessions were also an opportunity for the participants of the training workshop, or the citizen social scientists, to meet with me to discuss any issues they might have faced in carrying out the interviews. Attendance varied week on week, from around two to ten people, depending on what activities and events were taking place at the social centre on that particular day. On days when attendance was low, I helped Stephen with tasks and odd jobs around the centre, and we discussed issues around his work and other projects developing at the centre.

Participants, and the people they interviewed, were also encouraged to bring in any documents, photos or memorabilia of the past and present lives of Moss Side. These

were collected by either Stephen or myself, and stored in the office of the social centre.

Preliminary resident interviews

Five in-depth semi-structured interviews were undertaken by participants over the course of the project. These were recorded in residents' homes or at the community centre and lasted for about an hour. These were either filmed or audio recorded, and the recordings were stored at the community centre, on the office computer.

Community event to discuss project developments

A community social event was held at the community centre in November 2016 to share some of the images community members had contributed to the project, to gather more accounts and stories and to display some of the recorded interviews, using laptops and headphones for attendees to listen in to. This event involved a gathering in the relocated community centre, with hot food and drinks provided and an exhibition of many of the materials gathered so far, including a form of living map of the area.



Figure 4.4 Living map in social centre in Moss Side
Source: Author, November 2016

I ensured that the event coincided with the Economics and Social Research Council (ESRC) Festival of Social Science programme of events. This meant that the Our Manchester community event formed part of the wider national programme of events during one week in November 2016, and thus was widely promoted beyond the previous networks and realms of the Our Manchester project. The aim of this event was also to discuss the way in which the project was developing, to generate interest in the project and to gather attendees' views on how the project might develop further. The event was informal and people were invited to drop in and have a chat and some food over four hours of a Friday afternoon in mid-November 2016.

Project ongoing

The project initially ran for a period of six months over the summer of 2016 whilst the community hub was being refurbished, with a view to having a permanent installation or display boards up in the centre when it opened fully in the autumn 2016. The project was thus designed in such a way as to be able to continue for as long as there was interest in gathering accounts and displaying the stories and experiences of those in the area. My period of 'fieldwork' and participation in the project ended at the end of December 2016, when I relocated to a different country. However, communication with Stephen, via email, and occasional visits when I returned to Manchester, led me understand that the project had continued, and that Stephen and other participants intended to carry out further interviews as part of the project.

Sampling for probe 3

The sampling approach to the Our Manchester probe was based on opportunity sampling. This means that it uses the knowledge and attributes of the researcher to identify a sample, for example, using a researcher's local knowledge of an area on which to base a study, or using a researcher's past experiences to contact participants or gatekeepers (Mason, 2002). Opportunity sampling is often employed by social researchers studying covert or hard-to-access groups of people, objects or events (Shipman, 1997). In the instance of the Our Manchester probe, opportunity sampling releases researchers from relying on structural institutions in society to identify samples, and allowed for active engagement to with the social world proactively

(Brady, 2011). However, in the instance of *Our Manchester*, Stephen, with whom I coproduced the project, had a crucial role in terms of recruiting participants to the project. In many ways, he acted as a form of gatekeeper and his role is discussed in more detail in chapters 5-7.

Analysis of probe 3

A reflexive, inductive and emic approach was used to analyse the data generated by the Our Manchester probe. I undertook participant observation of the practices and processes developing during the project. Participant observation necessarily requires a complex learning process to help understand the situated nature of the structuring of social relations (Lave and Wenger, 1991). Participant observation allows us to make sense of people's lives in terms of the taken for granted categories of understanding and social processes that are meaningful to people in everyday life. The analysis of the Our Manchester probe entailed reading, and re-reading of my field notes from the many meetings and events that took place at the social centre, as well as reflections on my discussions and experiences in participating in co-producing the project. Where more lengthy interviews took place, these were recorded and transcribed, and analysed for key themes or issues coming out of them. Thematic analysis (TA) (Braun and Clark, 2013) was used where possible to make sense of the themes coming out of the different data types generated during the probe into the *Our Manchester* project.

Ethics of probe 3

The probe received ethical approval from the University of Manchester Ethics Committee. Gaining access to the community development worker was quite a long process of getting to know each other, discussing ideas and spending time together in different contexts to respond to many questions around our mutual aims, what would happen to the data and what I would do after the project. I was able to obtain verbal consent from the community development worker that I was able to spend more time observing and participating in the daily activities of the social centre he was involved in refurbishing. I adhered to the University lone worker policy and ensured that I

informed my supervisors, or someone responsible as a point of emergency contact, that I was going to work in the 'field'.

All data collected during this probe was anonymised and informants' names were changed to maintain a level of anonymity. I transcribed the interviews I undertook with key informants, and stored under password protection on an encrypted hard drive. However, in terms of the video and audio recorded interviews that were undertaken as part of the project by the participants themselves, and any photos or other memories that were given to the project, these were all stored at the community centre that Stephen, the community development worker, ran. The ethical issues raised in the course of the project, particularly around control and gatekeeping are explored in more detail in chapter 6, which analyses the probes to shed light on the politics of method and ethics in citizen social science.

4.6 Conclusion

This chapter sought to expand upon and justify the use of a facet methodology as a way in which to empirically study citizen social science. Facet methodology, drawing on a gemstone metaphor to encapsulate citizen social science, allows for reflections on, and the generation of 'flashes of insight' (Mason, 2011), into its practices and processes. Facet methodology allows for the opening up of approaches, and for the researcher to be creative in carving out facets into the citizen social science.

The review of the literature in chapter 2 drew attention to how citizen social science is framed and conceptualised in the literature. This was further unpacked in the presentation of the scoping work as set out in chapter 3, which examined how practitioners undertaking what could be considered to be citizen social science, conceive of its potential. It is these key aspects, or facets, of citizen social science that informed the research design and social research probes presented in this chapter. The probe approach, stemming from design, and adapted from cultural probes (Gaver et al., 1999; 2001; 2004), for use in social science research, allows for a more detailed exploration of key facets and tensions in citizen social science, by probing and intervening in the way in which it operates in practice. The motivation for their use

was that social research probes allow deeper insights into the emergent epistemological politics of citizen social science. The specific methods and tools used for each of the three probes were presented above. These included the comprehensive features of how each probe was set up and run, the different types of data collected, and any ethical issues or considerations that were adhered to. The limitations and challenges of such an approach are reflected on in the conclusion to the thesis (see section 9.6). The next three chapters detail the analysis of the probes and how they assist in documenting and generating insights into how different types of citizen social science work in practice.

Chapter 5. Facet 1: The challenges of research design and execution

5.1 Introduction

It has been suggested that little attention has been paid to ‘non-expert citizens’ engagements with data, or what Couldry and Powell (2014, p.2) describe as ‘what actual social actors, and groups of actors, are doing under these conditions [of datafication] in a variety of places and settings.’ Furthermore, research into everyday engagements with data is still limited (Kennedy and Hill, 2018). However, a sociological focus on everyday encounters with data can unveil how the process of data generation in citizen social science is experienced, translated and adapted (Neal and Murji, 2015). Such a focus on data is necessarily up close, personal and messy (Kennedy and Hill, 2018), in contrast to the distance at which quantification and big data operate (Porter, 1995; Crawford, 2013). It has the potential to generate first-hand accounts, and shed light on lived experiences, and generate data to fill data gaps and potentially tackle intractable social issues. Much of the current focus of this field is around data, or citizen generated data approaches, rather than on the people that produce it as exemplified by the projects set out in the key facets chapter (3).

If social science methods are multi-sited (Savage, 2007), how do we position ourselves when looking at these multiple locations (see the literature review) and epistemologies (see the key facets chapter)? This first empirical chapter contrasts the challenges for research design and execution from the perspective of the researcher with reflections and data on the experiences of participants of undertaking and interpreting the research execution in citizen social science. It is important to acknowledge that citizen social science is differentiated by nature, and the roles within it are not so clearly demarcated as this presentation of perspectives suggests. However, this approach allows for the research question to be explored, and to better understand the different roles and perspectives in citizen social science. In this way, it holds these different perspectives together, sheds lights on, and discusses the tensions such a positioning invokes. The chapter sets out the empirical work from the

probes and the ways in which such issues and tensions were worked out together, drawing on Taylor et al's (2015) concept of 'data in place' to illuminate the varieties of motivations and approaches in citizen social science, and the conflicts between them. The concept of 'data in place' (Taylor et al., 2015) is useful to unpack how participants generate data in citizen social science, and the unobtrusive or indeed burdensome nature of citizen social science. Taylor et al. (2015, p.2863) call for 'a reconceptualisation of data... that accounts for the ways in which it is contingent on very particular circumstances'. They also call for a perspective on data that 'doesn't presume an intrinsic generality, but that acknowledges precisely its place in and amongst other worldly things'. The concept of 'data in place' is useful as it helps to draw out ideas of data coming into being through growing and shifting relations with the context in which it is created, with those creating the data, and the environment in which it is created. This first empirical chapter focuses on the challenges citizen social science raises for research design and execution, and reflects on the context in which the data is generated.

This chapter therefore draws on an analysis of all three probes – one into the Mass Observation Archive data, one involving citizens reporting observations of empty houses, and one examining a community based history project - to assess the challenges for research design and execution that citizen social science raises. It provides a detailed focus on the 'facet' of research design and execution in the citizen social science gemstone (Mason, 2011). The second section examines the challenges of citizen social science for research design for the researcher. The third section examines the challenges of citizen social science for research execution, from the perspective of the participants, particularly in terms of observational expertise, bias and endogenous social analysis. The ways in which people seem to be undertaking social science research anyway, even if they do not consider it as such, present challenges for the design and execution of citizen social science; these practicalities are concluded upon in the final section of the chapter.

5.2 The challenges of citizen social science for the researcher

If methods allow for reflections on ‘new ways of understanding the relationship between the cultural, social and material’ (Savage, 2013, p.18), how does this impact on questions of research design for data generation in citizen social science?

5.2.1 Designing for data generation

Citizen social science involves the engagement of citizens in generating data to be used in social science research. This section sheds light on the specific wording and framing of the tasks in the particular forms of citizen social science that are probed for, and the challenges for research design. It looks at how data is generated in each of the three probes.

Firstly, it is useful to consider the nature of the ‘directives’ in the Mass Observation probe. Whilst seeming open-ended, the nature of the wording of the directives is carefully chosen to provoke responses from the Mass Observers writing for the project. The specific wording of the directives of the Mass Observation Project is set out in the methods chapter (4), and Appendix 4, but interviews with the archivists and librarians of the project reveal the pragmatic and strategic approach to designing the directives, and the particular attention given to the phrasing of the directives to elicit specific responses:

The very first directives were very personal and supposed to open up a dialogue. Each directive has its own history around who’s inspired it and why it was developed. Some directives are deliberately experimental and some are entirely written by the commissioner. It also needs to satisfy the user so it’s now a collaboration, and the aim is to keep the directives open-ended. Often autobiographical questions are at the beginning of the directive, and open-ended questions at the end to try to draw people in. It’s a very structured way to get people to write about themselves. Often I would also write a little scenario to draw people in – like what advice would you give to someone who’s confronting having to have an abortion? Rather than ‘What do you think about abortion?’ – it’s about trying to get people to be reflexive and to think about themselves.

(In conversation with director of the MOP, July 2017)

As the director's comment showed, reflexivity was actively sought out and engineered into the directives, so as to get participants to 'think about themselves'. The ordering of different types of questions allowed for a more effective engagement of the Mass Observer, with the 'autobiographical questions' placed at the beginning of the directive, and the 'open-ended questions' at the end to draw people in. The 'questionnaires' used in the Mass Observation project were referred to as *directives* because they *directed* the attention of the Mass-Observers to the subject area which Mass-Observation was studying. The director also mentioned the 'commissioner', often a researcher or independent organisation, which would 'collaborate' with those working at the Mass Observation Archive to develop a specific directive on a topic they were interested in, to be able to 'use' the data (see chapter 7). Her comment here draws attention to the ways in which the design of the directives in the Mass Observation project entails a collaboration between the commissioner-as the 'user' of the responses generated, the project director and managers, and effectively the Mass Observers themselves. Many similarities can be drawn between the design and aims of the 'directives' and the nature of social research probes as a method for prompting or 'directing' participants to reflect on their own perspectives, and to consider other perspectives.

The director of the project highlighted how they learnt from the Mass Observers about what works and what does not:

The responses to the early directives were really short, but you learnt from the people who write, about what works or not. I always warn commissioners that there might be no one responding ... but you can always trust that the Mass Observers' commitment to writing overrides the topic that they're writing about – they have a strong sense of belonging and sharing and commitment to the project.

(In conversation with director of the MOP, July 2017)

The director of the project highlights the commitment and 'strong sense of belonging' of the Mass Observers to write for the project. In many ways, the project organisers look to the Mass Observers to better understand how to phrase the directives, and what types of questions or terminology would engage them most.

There appears to be a dialogic relationship between those writing for the Mass Observation project, and those running the project; it is different to simply taking part in a survey or other more traditional social science research methods. The particular way in which the project played out in practice can be summarised by the non-traditional relationship between the researcher and the research participants. Furthermore, some Mass Observers appeared to have an individual relationship with the project organisers, despite not necessarily knowing them personally. Many responses were addressed to the director of the project at the time of the response. When asked how they would describe their relationship with the Mass Observers, one archivist responded:

‘as a friend, and as more of an intimate relationship, like a diary but with the historical culture of knowing that it will be read’

(Interview with archivist and project librarian, May 2016).

This description suggests a much more familiar and close relationship between the Mass Observers and the project organisers, one that developed over time and which became dialogic in the way that the Mass Observers can feedback through their responses, their thoughts and feelings about the project itself, the wording of the questions, as well as their thoughts on the topic at hand.

In this way, questions then arise about how to design for the generation of data in a project when the relationship between the respondents or Observers does not play out along distinct lines of ‘researcher’ and ‘researched’. The director of the Mass Observation project reflected on this statement:

Once you escape from the anxiety of representativeness and see Mass Observers not as data subjects, but as windows into worlds or rapporteurs, you’re a lot more free to do things.

(In conversation with director of the MOP, July 2017)

The director of the Mass Observation project reflects on how there are different ways of seeing the output of the project. The ‘data’ that is being made by the Mass Observers is perceived to open ‘windows’ or observations of the social world. This reveals how the data is not so much ‘about’ the social world but ‘of’ the social world.

The term data ‘generation’ has been given preference over the use of the term data ‘collection’ since the latter is not an accurate reflection of what takes place in citizen social science. Citizen social science arguably recognises the role of participants in generating data to be used in social science research.

There are links here to probe two into the Empty Houses Project, where participants were encouraged to send in observations of empty houses in their local area, in an attempt to tackle a pressing policy issue. The project was designed in such a way that the criteria for identifying an empty house were intentionally left unspecified. Participants were asked to note the postcode or location of the empty house as precisely as possible; they were also asked to state why they thought it might be empty, and if possible, how long they thought it might have been empty for. Lastly, they were asked whether or not they had previously reported the house as empty to the council, and to include any other information that they thought might be relevant (see figure 4.4 in the methods chapter for detail).

These criteria could be problematic, however. As noted in the previous chapter on the methods used in the thesis, the Empty Houses project did not generate many responses (20 in total over a period of four months). This prompted the undertaking of a series of walking interviews to better understand the process of reporting empty houses. In particular, the interviews included a question to interviewees about the criteria for identifying empty houses. Some interviewees listed visual signs that may signify that a house has not been lived in for some time, such as broken blinds, blocked access to the front door, or rubbish and abandoned household items in front of the house, as exemplified in image 5.1 below.



Figure 5.1. Potentially empty house

Source: Author's own. Image taken during Walking Interview 8, January 2017

This photo, taken by the author during a walking interview in January 2017, highlights some of the challenges of identifying an empty house and interpreting the image. Whilst the rubbish and debris deposited in front of the house suggest a certain level of neglect, it is possible that this is part of a process of refurbishment and the house is not in fact a long term empty house at all. In many ways, the walking interviews became a form of working out together, between researcher and participants, how to identify and interpret empty houses.

With the third probe into the Our Manchester project, a co-produced community history project, the questions and aspects of the project that participants had to respond to, did not develop in the same way, due to the more participatory type of citizen social science that the probe was exploring. Part of the design of the probe was that it was to be coproduced with Stephen (name changed), the community development worker, and participants self-tasked, under the leadership or influence of Stephen. As reported in the methods chapter (see chapter 4) a

workshop, undertaken in August 2016 with participants at the social centre, discussed the themes that might be interesting to interview residents about. Eight local residents attended the workshop, and a wide-ranging discussion at the meeting entailed the sharing of the experiences of participants and their families. These included coming to the UK, schooling and racism, supplementary schools, youth clubs and community centres as well as changes through clearance and regeneration. The topics then became the focus of a series of interviews, undertaken by members of the community, to gather accounts of the experiences of people currently resident in Moss Side about the ways in which the area may have changed.

A subsequent training workshop took place, in which those wanting to participate in the project were invited to discuss issues around ethics and consent of the project, and how these interviews might take place in practice. An interview guide was developed around the themes discussed from the previous workshop, with questions around the general theme of ‘what’s Moss Side for you now?’ However, during the discussions around the development of these questions, participants stated that they did not want to have a standardised approach since different interviewees might want to talk about different things. Owing to the interests and positionality of the community development worker who was co-producing the project, the nature of the ‘tasking’ in the Our Manchester project was more akin to research as a mobilising tool, connecting people’s stories, memories and identities to a new setting. In a preliminary meeting about setting up the project, with Stephen and Peter (name changed), the colleague who had introduced me to Stephen, they reflected on the nature of Moss Side and how the area had changed since Stephen had lived there:

Peter: The narrative of race inequality is very much about things being denied because of racism. Jobs, education etc ... they’re all stories of denial so there’s a sort of reparations attitude whereby the system’s disadvantaging certain people ... and people are gaining in confidence in handling and navigating the system. The [social] centre is inter-generational and aimed at those who haven’t found that confidence to navigate the system.

Stephen: Yeah and that’s what we’re trying to sort out! You get me? We’re just not entirely sure how to do this...or where to start. People don’t seem

to recognise that stigma. So maybe by getting them to tell their stories, and getting their voices heard, we can get their stories out there? Start to tell it like it is ... you get me? We need to meet people where they're at too ... not pulling them back to our agenda. How do we do that?

(Project development meeting 10th June 2016)

As Stephen alludes to above, the point of telling stories, and getting people to articulate their accounts is to validate the telling of other stories and presenting other perspectives. The participants, who were interested in the history of their residential area, and understanding people's experiences of how the area may have changed, designed the research, in conjunction with Stephen. Stephen identified himself as an activist and had clear intentions to put the research to use (see chapter 7). The challenge for research design that such aims presented, was how to design the project in such a way as to illicit open and broad accounts, and to 'meet people where they're at', rather than constraining participants to the set agenda of a project. As such the Our Manchester probe explored a plurality of accounts, voices and narratives rather than a singular history of the area being written and upheld, and perpetuated. Through many of the discussions during the initial phase of the project, participants agreed that the aim of articulating such stories and accounts of residents was to facilitate a different presentation of Moss Side, the area in which they lived, based on the experiences of the residents living there. In many ways, parallels can be drawn between the approach of the Our Manchester project and that of the Mass Observation project, particularly in relation to how Sheridan et al. (2000) present a reading of the Mass Observation project as presenting participants' personal anthropologies.

5.2.2 Piggybacking on a habit with a chore

All three probes demonstrated a commitment amongst the participants to the projects, and an appetite to take part. This was particularly pronounced in the Mass Observation project, where one of the archivists noted that even in times of financial crisis, people continued to write about issues that were important to them and send their responses to the project, despite a very uncertain future for the Mass Observation Project (Interview with archivist and project librarian, May 2016). In

many ways writing for the Mass Observation Project is a more committed and engaged practice than, for example, reporting on empty houses, or other observations of daily life that are submitted via social media platforms. The archivists of the project reflected on the nature of participating in the project by submitting responses:

I see it as a form of ownership through participation – it's not just like a Gallup poll response. People participate in Mass Observation and then see Victoria Wood in *Housewife 49* and they feel a connection to that. It's a club in a way.

(Interview with archivist and project librarian, May 2016)

The distinction here between the particular type of participation in the Mass Observation project and participating in a survey or more recognised forms of social research draws attention to the nature of writing for the project. It is a more committed practice, a 'club' over which participants are perceived to feel ownership. The archivist noted how seeing a link between a television programme about one of the Mass Observers (*housewife 49*), played by actress and comedian Victoria Wood, and writing for the project engendered a sense of community and inclusion in the 'club' which is relatively far removed from perceptions of participating in more conventional forms of social research such as a survey or focus group.

The Empty Houses probe revealed how walking interviewees were committed to the project and felt involved as citizens in trying to tackle the issue of homelessness, but also needed shared end-goals or motivations to take part for shared common good. As one interviewee commented:

I would want to participate when you know there's a practical benefit, like if it serves people in the community, but you've got to wonder why people take part. Does everyone have a shared end goal ... which I think there would need to be ... like for a common good?

(WI3, December 2016)

This walking interviewee queried the practical benefits of participating in the project, and whether there might be 'a shared end goal' motivating people to take part. Another walking interviewee presented a different perspective, alluding to their involvement 'as a citizen to act on it':

I think I'm also really into fixing the things ... the housing that we have at the moment and shifting the focus on that rather instead of ... you know the focus on building, building, building, you know ... let's see what we have now ... and maybe we have tons of empty houses that could be renovated enough ... and it's also a way of saving space instead of building so many new things ... so in that way, I feel involved as a citizen to act on it ... yeah.

(WI4, December 2016)

This walking interviewee drew attention to the feeling of a citizen's duty to participate in attempting to tackle the issue of empty houses. This notion of 'duty' links to some of the reflections by Mass Observers about their 'duty' to record their observations for the project and thereby to serve the wider research community and beyond.

The question arises of what it means to take part in citizen social science, and whether observing and reporting empty houses is something that people do anyway or whether it necessarily needs to be a more conscious form of participation and practice. In the Empty Houses probe, the walking interviewees discussed what taking part in the project means for them. As one interviewee stated:

I walk around to clear my head every so often ... but I don't think this is part of my daily activity ... I mean I'd be really bored with doing something online like that Zooniverse stuff, but I'd be quite happy doing empty houses ... it's like walking around maybe with a purpose or something? Although it would have to be practical – I wouldn't want to do it in the rain.

(WI6, December 2016)

This interviewee drew attention to the difference between online participation in citizen science projects, such as those that can be found on the Zooniverse platform, and 'walking around with a purpose' recording observations of empty houses. They were clearly keen to participate in the latter even if it is not part of their daily activities. Another interviewee reflected with a contrasting suggestion on the notion of participating in citizen social science being part of one's daily activities:

Can you piggyback on habit with a chore? I guess this is the only way to embed a practice in social life. I'm not sure I buy into the idea that like ...

well that you can just tap into something that people do anyway. It has to be like ... more of a committed practice or something?

(WI5, December 2016)

This interviewee reflected on the issue of whether it is possible to incorporate a 'chore' in the sense of data collection, within someone's habits or routine. They also drew attention to the notion of 'just tap[ping] into something that people do anyway', a potentially problematic notion in the sense that it hints at a form of exploitation of those practicing the 'chore'. Another interviewee commented:

Yeah just this lack of awareness to at all consider reporting on it ... and if it's your habit, you go out of the house, you go to work and you go back, then it's also your routine. How would you like to disrupt this? I think it needs to be disrupted or you don't notice...it's not active observing? So yeah, I mean when you just say it's not a burden so possibly just the activity so just stand here and walk by and have a magic app and just click it and say ok here's an empty house boom! So your data is collected...but I think for me it would be more the burden of what happens to the data.

(WI7, December 2016)

This distinction between 'active' and 'passive' observation highlights a level of reflexivity about what it is that participants are actually doing when they report their observations of empty houses to the project. The interviewee also reflected on the challenges of disrupting one's everyday routine by asking people to actively observe and report data. Whilst dismissing the sense of this being a 'burden' on the participant in practical terms, the interviewee suggested that the weight of responsibility is transferred to considering how the data will be used. Data 'use' in citizen social science, and the complexities surrounding this, is considered in more detail in chapter 7.

As stated above, the Our Manchester probe focussed on engaging local residents to participate in the project about their local area, rather than any sense of mass participation or the crowdsourcing of local knowledge on a larger scale. The project was localised, focussing on residents in Moss Side, Manchester, although the actual scale of the project was never really a topic for discussion with Stephen, the community development worker leading the project. The project, from the outset, was an engagement of participants to undertake active roles in the project, such as to

go out and interview other residents in Moss Side about their experiences of how the area had changed. In this way, discussions about routines, everyday practices, and the burden of participation are not so relevant, since an active engagement and commitment to the project was sought from the start.

5.3 The challenges of citizen social science for participants

This sections sets out the experiences and reflections of the participants in the three projects, which gave rise to a series of challenges in terms of the execution of these types of citizen social science.

5.3.1 The challenges of interpreting the questions

In the Mass Observation probe, one Mass Observer commented on the challenges of interpreting the directives, stating:

I do hope I get the right idea. It's so easy to misread them.

(D1559, Female, Your Views on MO, 1990)

Another Mass Observer did not consider himself to be a research subject, only responding to an invitation to record their observations and thoughts:

I don't feel as though I'm taking part in social research. Of course, in reality, I am, but unlike the pointed, aforementioned questionnaires where there may be much, for the recipient, at stake, here he/she has much greater say and control over the response. One isn't concerned or compromised, only invited.

(A3072, Male, 40, Being Part of Research, 2004)

In the Special Questionnaire, a directive issued in 2010 by the Mass Observation project, Mass observers were asked what they got out of writing for the project. One Mass Observer responded:

It makes me think as clearly as I can and looking back at nearly 30 years of contributions I'm fascinated by my answers!

(D996F, SQ, 2010)

The suggestion of this Mass Observer that they are 'fascinated' by their own responses highlights how they are reflecting on their own observations and responses almost from a new-found distance of the observer. Responding to the same question, another mass observer writes:

It is cathartic, eye-opening, makes me question myself, my thoughts, feelings and how I express myself, who I am, what I am. Although an eccentric, isolated, cat loving technophobe was something I knew about myself already, I certainly had not realised just how much my disabilities and illness control my life. I just get such a buzz from writing for MO, it's a great sense of pride.

(H4611F, SQ, 2010)

Through the humour of this observer's account, it is possible to notice how she highly values the opportunity for reflecting on her reactions, thoughts, feelings and herself, and even her own health. Another Mass Observer responds to the same question in the Special Questionnaire, about what they think they get out of writing for Mass Observation, in the following way:

It clarifies my thinking on issues. Sometimes it makes me consider my attitudes/opinions on issues I haven't consciously thought about for a while, if ever.

(M1201F, SQ, 2010)

This Mass Observer seems to enjoy being 'directed' to think about previously unconsidered issues. However, some were anxious that their writing is incorrect or not what is being sought after:

I sometimes feel as if what I am writing is too bland, down-to-earth, but is that what you're looking for?

(B1814, Male, Your Views on MO, 1990)

One Mass Observer reflects on the nature of the data produced in more detail when he writes that the Mass Observation is:

an exercise in the capture of a type of raw data which would arise through no other channel apart perhaps from a private diary which would crystallise my thoughts and feelings as accurately as I can, not to please anyone, or to try and achieve an outcome of some specific nature, but to record how I see particular issues, and how I feel about them, or to record things from my past which are being asked about. There is no need to consider anyone's feelings in making these responses.

(C3006, Male, 46, Being Part of Research, 2004)

This response highlights this Observer's reflection on the data produced in the project, between perceptions of capturing '*raw data*' in large volumes that would not be collected by other means on the one hand, and the subjective limitations of his writing practice on the other. The Mass Observers' documenting of their experiences, observations and thoughts, blurs the boundaries between observers and observed, between the subjective and the objective. This Mass Observer comments about the lack of 'need to consider anyone's feelings', drawing attention to his perception of writing as a personal task untrammelled by emotions, and subjective feelings.

What to report and what not, the granularity of it, the perspective taken, all produce different 'data' and it only becomes 'data' in the analysis. The Mass Observers reflections make this visible and sometimes almost seem to observe this themselves; yet how does one analyse this? Furthermore, how open-endedness is done and how 'choice' is then performed becomes an interesting question and challenge in terms of research design in citizen social science. The idea that 'open' questions will allow 'reality' and different perspectives to be expressed assumes that there is an independent reality and perspective out there to be obtained. In many ways it could be seen to create a form of vacuum in a world made in and through social relations and interaction. Thus Mass Observers have to create their own rules from responding to the directives.

Walking interviewees in the Empty Houses probe also noted difficulties with the interpretation of the task, and questioned what the criteria for observing an empty house might be. As one interviewee stated:

My boyfriend used to live next to an empty house that I ... it took me a year to realise that it was empty basically! [laughter] ... just because I thought it was just wild plants and bushes around...but really the day I realised it was empty I just realised you couldn't even access the front door ... but it's just not something I think of at all ... because it just doesn't make any sense to have an empty house when you think about it ... so I never really think this could be empty if I see something.

(WI4, December 2016)

This walking interviewee admitted to not even noticing an empty house for the best part of a year, and questioning the logic of an empty house, which does not

even make sense to them. Thus, they never consider a house to be empty, even when they might see potentially visible signs of neglect. The same interviewee continued reflecting on the matter:

Other things would be windows ... and rubbish on the floor and not look looked after and cared for ... and litter ... but the thing is there's a difference between empty and inhabited ... or like how empty is empty? Because for example you would see some curtains that people would have put, even if the house is uninhabited ... so it's like still signs of habitation in a way ... like putting curtains at the window which is why I don't ... you know ... it kind of blurs a line.

(WI4, December 2016)

In this sense, the tasking of data generation in the Empty Houses Project was equally open-ended and the interpretation of the task was left for participants to interpret themselves.

I don't really notice [empty houses] unless there are very clear visual signs. But you can't see whether they're like ... I mean what are the signs of an empty house? Is it being boarded up? Or is it not noticing people coming and going? And I think that lots of ... most of the people on the actual estate kind of know each other so well that they move around spaces so confidently that you perhaps ... even if there was an empty house behind where they're moving, I don't know if you'd notice it ... if that makes sense?

(WI5, December 2016)

This walking interviewee questions the visible signs of an empty house and how to identify one. They mention the ways in which people move around which might mask the fact that there is actually an empty house. The issue of identifying an empty house is far from straightforward and is problematised further in section 5.3.2 below. The tensions of the different positivist and constructivist approaches to mapping empty houses are highlighted in the walking interviews, drawing attention to the need for social science training for participants, and for citizen social science projects to be designed very carefully, building capacity, rather than testing it.

5.3.2 Observational expertise and critical distance

Hymes (1996) describes ethnography as an explicit and elaborated form of the everyday practice of contextual learning: ‘our ability to learn ethnographically is an extension of what every human being must do, that is learn the meanings, norms, patterns of a way of life’ (Hymes, 1996, p.13). This raises questions about observational expertise. Is everyone to some extent already a social scientist, even when not enrolled in formal social science work? Are people already fieldworkers of their own lives, generating descriptive sociological data as they go about their daily lives? Or does the professionalisation of observational techniques constitute a different category of sociological data that means that this is not the case and people need to be trained in formal and distinct sociological ways of analysing and collecting data?

This section discusses the ethnomethodological notion that members are analysts of social order and they have to fit their own actions into that order. In this way, and at some basic level, we are all analysts of the social; but there are subsequent multiple layers of professionalization, expertise, standardisation, and institutionalisation. This is a challenge for research design and execution in citizen social science in terms of dealing with ‘observation’ data specifically and the potentially new ways of seeing that participating in citizen social science can engender.

The analysis of the data in the Mass Observation Probe revealed that many of the Mass Observers viewed their role in participating in the project as being one of recording vital knowledge for historical posterity, contributing to social and historical legacy and this constitutes a source of pride for many of them. As one participant stated:

Whoever uses these archives in the future, will not be observing us, we shall eventually all be dead. No, they are reading about the social history of our times. Imagine finding a diary written in the mid-nineteenth century, when you read it you are not “observing” the writer, you are taking yourself back to being in their era and seeing how people lived then.

(W640, Female, 65, Title MO, 1993)

The Mass Observer writing this is almost entirely effacing their own subjectivity for a view onto the social history of their time. This is in contrast to the valued opportunity for self-reflection mentioned in other responses. Another Mass Observer commented:

I like to think that my contribution adds to our social history, that my views/thoughts/feelings are being left, albeit anonymously, for future generations to read, to get a glimpse of how people my age felt at certain times in their lives, about their own lives and recollections and reactions to what was/is going on in the world generally.

(K798, Female, 60, SQ, 2010)

In many ways, the responses of many of the Mass Observers in the project acted as a form of proxy observer, providing a view onto the minutiae of everyday events that might not be possible to directly observe in more conventional social research methods. Mass Observers seemed to see their contributions as a lens onto the world. They were realistic about what they are doing, or at least they have a sense that they are both observer and observed. The probe into the Mass Observation project revealed the ways in which citizen social science, unlike, for example, citizen sensing projects, opens up a space for reflection in the data generation process.

One Mass Observer comments on their contributions to the project as unique experiences, which are valuable precisely because they are personal to the contributor:

I prefer themes involving my own experience – because I feel I have a unique (if sometimes rather trivial!) contribution to make. In discussing wider issues, which have a wide coverage in the media, I feel there is little to add – unless I have been personally involved.

(T2003F, Your Views on MO, 1990)

This Mass Observer reflects on how they feel like they can contribute observations based on their own personal experiences, rather than more objective observations of something they have no experience of.

Another Mass Observer reflected on the nature of the data they produce in writing for the project:

There is in this directive a chance that perhaps the writer, myself, can perhaps put something down, that doesn't shock him but does shock the person who reads it... I would hate to have someone reading it, namely you or whoever reads the directives when they are returned, being shocked by what I've put down. I should add, that to me, what I've written isn't shocking, just the truth, in the simplest way I can put it.

(S2067M, Your Views on MO, 1990)

This Mass Observer's reflections reveal how he views his responses as an expression of his own personal truths, even if they risk being subject to misinterpretation as 'shocking'. It is also worth noting in this response how, as is frequently the case in many of the Mass Observation responses, the Mass Observer directly addresses the reader, or director of the project, who they assume reads their responses.

Many Mass Observers were dismissive of the quality of their writing referring. One MO stated:

I've not previously considered my rather minor contribution to M.O. as taking part in social research but I suppose, to some it must be.

(C2203, Male, 52, Being Part of Research, 2004).

In some responses, Mass Observers displayed a sense of not thinking too objectively about what they are being asked to do, but to just get on with submitting their responses:

I can ramble on about most things though whether it's of any value is another matter!

(M2451, Female, Your Views on MO, 1990).

Some Mass Observers do not necessarily want to reflect on broader issues of which they do not have direct experience, which is in contrast to others who value this opportunity to reflect on previously unconsidered topics:

I think I prefer to write about my own experience, religion, the environment, the elderly, in living in the world today etc. I do not take much interest in the wider issues some of which are beyond my comprehension.

(G1513, Female, Your Views on MO, 1990)

Some Mass Observers suggested in their responses that they found their views to be worthless, or that they lacked confidence in the face of perceived expertise in doing

research. On the other hand, another Mass Observer was both self-confident in her views and self-deprecating. She reflected practically:

My opinion about life is as good as anyone else's so why not air it to all and sundry. They can always recycle the paper and make papier maché puppets out of it if the content isn't good enough.

(C1191, Female, 49, Being Part of Research, 2004)

This Mass Observer commented on the potential to recycle the paper she wrote her directive response on, if the quality of her response is not deemed to be appropriate. The probe showed the very endogenous sociological analysis citizens carry out, as part of living social lives is an important source of these frictions.

In probe 2 into the Empty Houses project, some participants suggested they did not feel comfortable reporting on empty houses because they found them hard to identify and assumed that some prior knowledge or 'expertise' was required. There is a sense from the walking interviews that participants did not feel qualified to report and that they are not experts in this area and therefore their knowledge does not count, or is not of sufficient quality. This links to some of the Mass Observers' responses analysed above that demonstrated an apparent lack confidence in the face of perceived expertise, or a concern to be seen as intrusive or nosey. An analysis of the walking interviews clearly highlights, however, that citizens do know a lot about empty houses - that it is a complex concept, a private matter, a political matter, a socially sensitive fact, something that needs to have something done about it, but that it is not simple. The very nature of the Empty Houses probe, and the way in which it was adapted to include a dialogic exchange between the researcher and the participants in the form of the walking interviews, brings these issues to light. As one interviewee commented:

It's very unclear what's empty or not and it's unclear what we can do about it, and why would we do something? I don't feel very good at spotting empty houses - it's maybe bad that I haven't spotted any.

(WI4, December 2016)

Walking interviewees discussed different types of observation and how to identify an empty house, actively engaged in attempting to identify an empty house, and discussed different criteria and approaches to identification. As one interviewee described:

I think ... on most sites here and there you see maybe a property that is empty but I don't give much thought to it. I guess just when it's close to my house I walk past it and I see it and it's kind of an odd from the normal so I would guess this is now ... yeah maybe ... I don't know if it's interesting but it kind of stands out as there's a fence around it and nobody's in there and I don't know what's in there. I would notice this house and I would see it as kind of this mystery place. I don't know if mysterious place is a good description but then I guess at some point you also get used to it since No just thinking but like compared to maybe even in the UK you get more used to seeing this rather than when I was living somewhere else and there was an empty house ... I'm just thinking about what the eye gets used to when you walk around a city.

(WI2, December 2016)

The interviewee reflected on 'what the eye gets used to' when making the same journeys or navigating a familiar city in the same way on a regular basis. They commented on how they initially observed it as 'odd from the normal' but then 'got used to' seeing a potentially empty house on their street, characterised it neutrally as 'a mystery place' and then did not give it much further attention. Parallels can be drawn here between the walking interviews and the reflective directive responses of the Mass Observation project. The interviewee perceived the practice of observation to be a solitary or individual experience of just walking around the city in which they live. Another walking interviewee expands on this notion that doing citizen social science with others is what makes it social science as opposed to just making sense of everyday life, reflecting:

AA: So then with the Empty Houses Project specifically, would you consider that to be social science?

WI6: I think it...for me would depend on the purpose of it really. If it was just me doing it, then probably not. But if I'd been tasked to do it - probably, or if I was doing it for a reason ... then yes? Yeah! But if it was just me noticing ... then that's just me noticing.

AA: So how does it become social science or what changes it? What's different?

WI6: I guess if there's some structure ... or if it's just thematic or if it's for a purpose then maybe that would count as social science. But if it's just

me, me in my own head like ohhh ... I wonder if there are any empty houses where I live? Then not really - cos that's just me thinking about it?
(WI6, Empty Houses Probe, December 2016)

This walking interviewee refers to the difference between personal subjective 'noticing' of empty houses and when these observations are bound up in a more structured and purposeful action. They also contrast the notion of solitary or individual observations versus the collective activity of participating in a project. This is interesting in terms of the similarity to the Mass Observers' reflections on their participation in the project as set out above, where they value the space for personal, solitary reflection but on topics which are structured and part of a formal, organised, wider project.

It's weird that it's my local area but I never actually go to some of these places. I guess people have set routines or patterns about how they move through space or their local area or city.

(WI3, December 2016)

These reflections from the walking interviews of the Empty Houses probe, highlight the ways in which drawing on everyday observations to generate data is not straightforward, and that participants are aware of the issues associated with observation data. The affordances of citizen social science here appear to be the way in which such an approach values the everyday, mundane social inquiry, which has the potential to scaffold it to come together as a 'bottom up' social science.

In the probe into the Empty Houses project, a walking interviewee reflected on some of the issues around subjectivity and observation data (see chapter 2):

People aren't neutral like local authorities are supposed to be, when it's actually a profession, well actually even if it's complicated ... but still you have to be neutral, and it's just people aren't! I guess I'm just very suspicious of people which is very bad to say this but yeah, people aren't neutral observers - they all have their own intentions and interests, and they didn't sign a contract to do work. It's not professional but they will need to put professional standards on it or have professional people to double check everything done by the people.

(WI4, December 2016)

Here the walking interviewee adhered to mainstream scientific notions of 'professional' quality standards in, and responsibility for, data collection. The question remains of how to verify the data quality of the empty houses submissions. The interviewee also drew attention to the ethnomethodological notion that members are analysts of social order instructions and they have to fit their own actions into that order. Thus, at some basic level, we are all analysts of the social, but then there are layers and layers of professionalization, expertise, standardisation, institutionalisation, power, politics and interests. The question remains of whether citizen social science forges new connections, and horizontalises the analysts. The probes suggest that it depends very much on exactly how 'citizens' are positioned, and how they position themselves. The details of how the projects are organised matters immensely.



Figure 5.2 Participants in Our Manchester project discussing photographs brought in for community event and sharing as part of the project
Source: Author, November 2016

In probe 3 into the Our Manchester project, this was a topic that was discussed with Stephen. He reflected on the data produced from the project:

Data is only collected when they want to do something to you, not for you.
(Stephen interview, November 2016)

Who 'they' is remains unclear in the interview, but this is an interesting distinction since it suggests that the 'data' produced in the Our Manchester project is not perceived to be data as such. Arguably, this could be due to pressures to produce data for governance and policy reporting, so it is perhaps not surprising that Stephen is sensitive to what more data is or should be. However, he goes on to reflect on what is taking place with the Our Manchester project:

It's not about information. It's about so much more than that. Questions need to be asked all the time – it's not about just waiting until there's a crisis. It's about trying to be preventative too by constantly asking how people are doing, checking in and discussing ... connecting. It's not about filling in a load of forms or ticking boxes and thinking that demands or data are static or fixed in time. They're not. There needs to be a holistic, live, adaptable system of constant negotiation and discussion so we can meet the different needs and interests of the people in the community.
(Interview with Stephen, November 2016)

In many ways, the type of citizen social science probed for in the Our Manchester project has the potential to provide the sort of data Stephen refers to here, 'to meet the different needs and interests of the people in the community'. However, it raises challenges in terms of how to design a project to deliver data for this as per Stephen's quote above.

5.4 Roles in the research process - finding a place in data

Participants are clearly aware of the challenges entailed in analysing and making sense of data, and the ways in which the data is inextricably bound in the context in which it was produced. Many citizen science projects attempt to use citizens as data collectors on similarly, although maybe not quite so complex topics, which reveals friction points. The probes show the very endogenous sociological analysis citizens

carry out as part of living social lives is an important source of these frictions. It thus follows that citizen social science gives rise to another challenge for research design and execution in terms of designing projects that allow for different situated knowledges (Haraway, 1998), analyses and contestations of the social.

The roles and expectations of the different participants were blurred and at times perhaps confusing when undertaking the probes. This was particularly a challenge in the Our Manchester project in terms of the questioning of the role of the 'trained' or professional researcher in this project. Many of my field notes reflected on this issue:

I keep thinking a lot about my own position as a researcher – what is my role in the project? I keep feeling like I'm holding back in meetings, resorting to and almost hiding behind the method of research, or interviewing, asking the questions rather than stating my views. Which becomes problematic when being grilled by Stephen as he tries to suss out who I am and what my views are as he tries to move things forward with the project.

(Field notes, Our Manchester probe, June 2016)

There was a struggle in the probe into the Our Manchester project in terms of roles, particularly in terms of who was driving the project and concern for, or lack thereof, adhering to particular methods and processes. At times Stephen appeared to act as a form of gatekeeper of the project, rather than a coproducer working towards the same goal. The project necessarily required a commitment to maintain it and an active practice to keep it going, as well as to find solutions to potential problems, and ensure that the process continued to work.

In probe 1, a Mass Observer reflected on their role:

Does analysis mean imposing your own structures on the world, and does what I do instead of analysis mean that I am receiver/observer rather than a controller?

(O2349F, Your Views on MO, 1990)

This Mass Observer considered the ways in which they are a form of transmitter or observer of the everyday, but they also perceive the difference between observation and analysis, and the blurred role of the Mass Observer in the project, somewhere

between researcher and researched. In many ways, and as suggested above, citizen social science entails a reconfiguration of traditional roles in the research process and some participants are tentative about its implications.

In many instances people appear to undertake endogenous research practices even if they do not consider what they are doing to be social research, since that is perceived as the preserve of the so-called 'experts'. Furthermore, this raises questions about what is it about social science that makes it a skilful and expert activity, and how that is practiced in a way that makes it difficult to do, even though all members of social life are social analysts. Citizen social science produces tensions between notions of inclusion of all social actors in the generation of information about the everyday, and the notion that many of the participants do not necessarily feel entitled, or empowered, to participate in the analysis of this information or in the interpretation of what it means. Many participants were only too aware of the complexities of this part of the research process.

This distinction was reflected on in the walking interviews in the Empty Houses probe. When asked whether the activities of the probe could be considered to be social science, one walking interviewee reflected:

AA: Do you consider this to be social science?

WI3: If I'm honest no. Because it's just my observations about the world around me, but then also due to my personality, I'm quite an inquisitive by nature kind of person, so ... but would I call it social science? No because lots of the things I've defined ... well talked about, have no kind of definitions, no kind of framework ... they're just observations.

AA: So when does it become social science?

WI3: I guess when there's more of a framework that says what is and what isn't... because when you were asking what the benefits of this kind of data would be, I mentioned that there needs to be some kind of common good or outcome or output in the end that serves a population or a group in the community ... but I guess unless there was ... unless that was pre-defined, or organically there was a group of people that had come together for a purpose, I wouldn't necessarily think it was social science ... cos it's just you using your senses I guess.

(WI3, Empty Houses Probe, December 2016)

This walking interviewee reflected on the need for a structure or framework into which their observations of empty houses could be inserted and ordered. They

distinguish between unstructured observations that are just ‘using your senses’ and the more formalised framework entailed in their perception of social science. This distinction is interesting, particularly given the nature of the Empty Houses project, whereby reporting observations of empty houses could be considered to be less of a reflexive activity, than recording observations of public events, or other issues, for the Mass Observation project, where such observations obtained by ‘just using your senses’ are actively embraced. At the same time, it highlights how probably any fact thus observed, is actually a constructed fact, and much more ambiguous and contextual than the idea of ‘observation’ suggests. An ‘empty home’ is many things, as discussed by the walking interviewees. The participant quoted above did not necessarily consider their observations of the world around them to be social science, as they are ‘just’ unmediated observations and lack a framework or structure with which to categorise and classify them. It raises the question: who gets to do social science? Or who gets to create such frameworks or structures and how?

5.5 Conclusion

Citizen social science methods draw attention to the relationship between scholarly social science knowledge and endogenous social competence, between reflection and expertise. The probes set off the inevitable hierarchy in the research process that means that roles are complex and responsibilities in the research process are spread. The practicalities of doing citizen social science raise challenges for research design and execution, as demonstrated above, that make it difficult for citizens to find a place in data, and for researchers to design projects that facilitate that process. The probes were designed to examine and provoke projects operating on different levels of Haklay’s (2013) typology of participation in citizen science projects (see chapters 2 – 4), which groups projects around four levels of participation, from crowdsourcing at Level 1, through to extreme citizen science, or collaborative science, at Level 4. As a project required greater levels of participation and commitment, different challenges for research design and execution became more prominent.

The probes make many of the complexities of data generation tangible, sometimes in unexpected ways. They reveal how the data is not so much ‘about’ the social world but ‘of’ the social world. The probes highlight the situated nature of observation data, that all data is ‘data in place’, and context dependent. Citizen social science can operate to generate different situated knowledges by locating data in the context in which it is produced, but it very much depends on how the project is designed. The question remains of what is it about social science that makes it a skillful and expert activity, and how is that practiced in a way that makes it difficult to do, even though all members of social life are social analysts (see Winch, 1958; Savage and Burrows, 2007; Thrift, 2011 for further discussion).

Citizen social science can work to problematise traditional modes of expert data analysis; the analysis above shows the difficulty of participants to find a place in the relationship between endogenous social analysis and ‘scientific’ approaches. However, the practices and processes of citizen social science appreciate the emerging, crosscutting connections between the expert practices of data capture, analysis and visualisation on the one hand, and citizen initiatives on inclusion, advocacy and cultural expression (Marres, 2014). Citizen social science, at its best, does this by allowing or encouraging participants to call into question the classic type of technocratic reason and expert-led forms of research and governance. However, this can engender ethical issues that are explored in more detail in the following chapter (6), which also offers ways to address them.

Chapter 6. Facet 2: Relational ethics and the politics of method

6.1 Introduction

Undertaking citizen social science raises challenges for research design and execution, particularly since such an approach blurs the boundaries between the roles and responsibilities of researcher and researched, as set out in the previous chapter. Chapter 5 highlighted the difficulty of participants to find a place in the relationship between endogenous social analysis and 'scientific' approaches. It also highlighted the challenges of designing projects that facilitate the process of finding a place within that. This chapter focuses on the tension that exists between the possibilities of citizen social science and its practical ethical realities, and the necessity for on-going dialogue and adjustments in ethical research practices. This is not new or unfamiliar discourse; its importance is heightened, however, particularly when considering the practical realities of citizen social science.

If methods are performative and social 'facts' are not just 'out there' to be collected, what ethical issues arise from doing citizen social science, and how might these be addressed? This question stems from the literature reviewed in chapter 2 that suggested that other social actors, beyond the academy, could be included in undertaking social science research (Marres, 2012). Citizen social science, as set out in chapter 3 on the key facets of citizen social science, necessarily generates new data publics, and certain tensions arise, particularly in terms of the ethical issues that citizen social science raises. As Tiidenburg (2018, pp.477-8) notes, all methods questions are ethics questions – 'most basically, a method is nothing more or less than a means of getting something done.' Every choice about how to get something done is grounded in a set of moral principles (Markham, 2006). It is thus necessary to consider the ethical implications in methods of defining field boundaries; accessing participants; sampling; collecting, organising, analysing, and archiving information; as well as representing participants in writing; framing knowledge; and maintaining

professional autonomy (Tiidenburg, 2018; Mauthner et al., 2012; Markham, 2006). Reflections on such implications are set out in the sections below.

This chapter takes an innovative approach to the ethical challenges and affordances of citizen social science as it asks participants about their experiences of participating in, and their ethical perspectives on the probes; it is a form of relational ethics. Austin (2012) suggests that relational ethics is a contemporary approach to ethics that situates ethical action explicitly in relationships. Interpersonal and societal relationships are influenced by the dynamics of power. A relational approach to ethical action underscores the need to address issues of power and vulnerability. Banks et al. (2013) consider everyday relational ethics as a daily practice of negotiating the ethical issues and challenges that arise through the life of citizen social science projects. They suggest that this way of constructing the 'ethical' is to see the moral agent 'not just as an impartial deliberator, but also as an embedded participant' with situated and partial relationships, responsibilities, values and commitments that frame and constrain ways of seeing, judging and acting in particular situations. In this way, I strove to become embedded in the communities I was researching, and to adopt a reflexive approach to developing the probes in each context. 'Thus the 'ethical' is present in ways of being as well as acting, and in relationships and emotions, as well as conduct' (Banks et al., 2013, p.266). In problematising this issue, citizen social science can play a crucial role in allowing participants to take part in a discussion about the ethics and values of knowledge production.

At this juncture the limitations of the discourses and categories of research ethics become visible. To discuss the blurring of boundaries, I choose to stay with the dichotomies of 'researcher' and 'participant'. This is designed to illuminate the blurring from two traditionally differentiated positions. Thus I will, firstly, examine the ethical issues for the researcher; then those raised by the participants in citizen social science. The concept of relational ethics is used in the third section to draw attention to the 'mobilisation' of the locus of ethical practice, and to destabilise it from being fixed on the researcher. The aim is therefore to open up both the research process and the ways in which ethical positions are formed.

6.2 Ethical issues raised for the researcher

Opening up the traditional research process to citizen participation means that in taking on the role of volunteer observer, citizens become part of the production process in a more applied and directed way (Elias, 1991; Purdam, 2014). In effect, they become researchers of a sort in their own right. Flinders et al. (2016, p.261) state that co-production is 'a risky method of social inquiry. It is time-consuming, ethically complex, emotionally demanding, inherently unstable, vulnerable to external shocks, subject to competing demands and it challenges many disciplinary norms.' If this is true of many participatory methods, is citizen social science special in this regard?

The possibilities of citizen social science can entail the flattening of hierarchies in the research process as knowledge is made together. However, this creates new tensions in terms of ethics and the reproduction of inequalities, and the conflicting stances or perspectives of ethical practice. It can blur the roles of researcher, participant, and research subject. In mobilising people in their everyday lives and activities, to voluntarily record data to be used in social science research, citizen social science is reliant on people creating knowledge together by way of their everyday practices. Participants subscribe to different codes of ethics to academic ethical practice. In this process, it could be intimidating and antithetical for people to adhere to the ethical practices of University taught social science - which draws attention to the politics of knowledge making. Citizen social science brings together academics and non-academics with potentially opposing methodological, paradigmatic, epistemological and ontological perspectives and practices. This makes it quite difficult to agree on the need for, and content of, reasonable practices and sufficient standards for ethical research. In this sense, opening these processes up and making them more participatory is necessarily political. Ethics approval is important and can help researchers reflect and refine their methods. The procedure for obtaining ethical approval prompts reflections on different aspects of the process, and this was a useful starting point.

Tiidenburg (2018) warns of the grey areas that researchers may find themselves in, where their individual sense of what is right and wrong; their discipline's conventions; the legal and institutional conditions of approval may at times clash or collapse. Institutional ethical guidelines tend to place the locus of practice and responsibility on the individual researcher to ensure that all aspects of the guidelines are followed to a satisfactory level. Passing university ethics committees is often a matter of procedure, where a written form that best explains the potential risks of the research and suggested ways to mitigate them, can fix the ethical stances taken in relation to a particular position that is then the researcher's responsibility to maintain. Most institutional ethical guidelines are based on the human as a biomedical subject, with social science research ethics being layered on top. However, the procedures of passing university ethics committee reviews can sensitise researchers to the risks, issues, potential harms, and consequences of a project. This necessarily engenders a degree of reflection, reflexivity and relational ethics to be written in.

However, citizen social science necessarily challenges this fixing of ethical responsibility on the researcher to ensure consent, anonymity, and control as far as possible in the design of the project, as this section shows. Whilst many of the ethical challenges in participatory research are common to social research generally (informed consent, anonymity, issues of ownership of data and findings) (Banks et al., 2013), the dynamic, complex and value-based nature of citizen social science and community-based approaches to research gives them particular prominence. The following subsections reflect on the specific issues raised for the researcher in undertaking citizen social science.

6.2.1 Consent

As set out in chapter 4, informed consent with participants was negotiated differently in each probe. In terms of the Probe 1 Mass Observation Project, a clear set of instructions on the Mass Observation website explains how volunteers can write for the project, what they are signing themselves up for and thereby what they are

consenting to be part of. Mass Observers are also required to fill out a copyright form (as reflected in Figure 6.1 below).

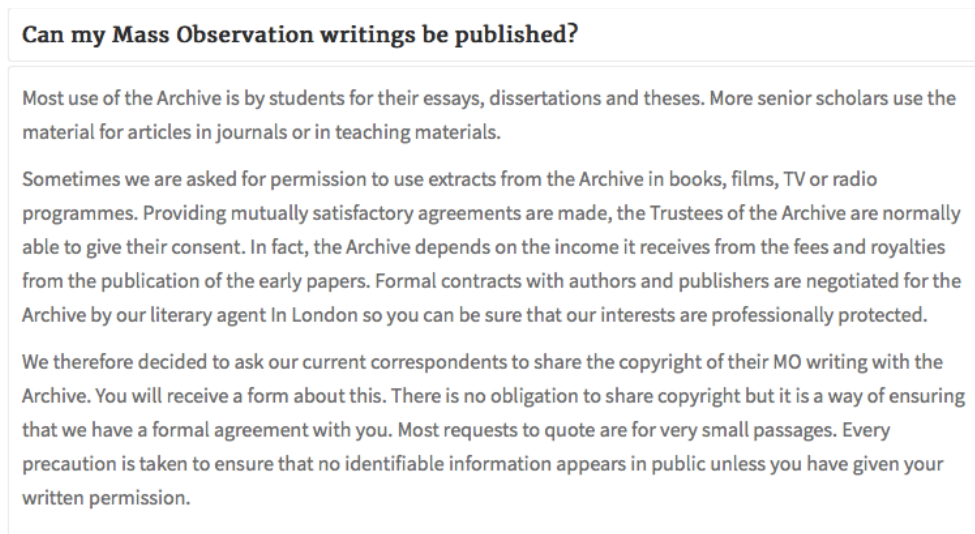


Figure 6.1: screenshot from Mass Observation website informing those interested in writing for the project about publishing and copyright issues

Source: Mass Observation website: <http://www.massobs.org.uk/write-for-us/faq>

With the Empty Houses probe (2), the online form stated that participants' contributions are anonymised and they will not be identified. Participants submitting to the project were able to leave their name and email if they wanted to be contacted again. If they did so they were sent an information sheet about the project, which acted as additional post-hoc informed consent. On this basis, participation assumed consent. However, the main aim of the project was to gather geographically locatable data in the form of postcodes, rather than more personal information about the participants.

Setting up and running the Empty Houses project gave rise to reflections around expertise and control of knowledge, particularly in terms of the media campaign, and how I almost became a representative for an important policy area in which I was by no means an expert prior to the project. The Empty Houses probe highlighted that a range of complex ethical issues arise when doing citizen social science, even at a 'low' level of engagement.

In probe 3 into the Our Manchester project, informed consent to participate in the project was particularly hard to obtain, predominantly because the aims and goals of the project kept changing, and negotiating informed consent from participants was not solely the responsibility of the researcher. This was further complicated by the fact that much of the data collected in the project was photos, images, video and audio recordings, as well as other objects, making the anonymisation of the data almost impossible. Lomax (2015) and Sweetman (2009) comment on the ways in which the visual, by its very nature, may make participants visible in the films, photographs and visual material produced, rendering traditional ethical mores of anonymity and confidentiality almost impossible to guarantee. This gives rise to a tension between the ethical requirement to protect respondents from being identified and the political and epistemological aims of participatory approaches predicated on giving 'voice' (Allen, 2009; Gallacher and Gallagher, 2008; Amin, 2007).

During the development of the Our Manchester project, a training workshop was held in July 2016 with project participants, Stephen, the community development worker, and myself to discuss issues of ethics and consent. One participant, Alice, a community worker who ran a specific lunch club for elderly people in the community in the social centre where the project was based, stated divergent views on the importance of obtaining informed consent from all participants in the Our Manchester project, as reflected in field notes from the event:

Interesting discussions about consent – Alice really pushed me on that... Alice used the term 'data protection' a lot and also really pushed Stephen about this. It was an interesting discussion though, as Stephen's view was more aligned to the idea that if photos are already in the public domain they're anyone's business. He was referring to Facebook as being in the public domain. But Alice and I tried to explain to him that the copyright of certain images might be owned by someone, who might not have been the person who uploaded those images onto Facebook so it's important to check. After quite an intense discussion, we started to try to work out the best process for dealing with any images or object that people might bring in. Would a consent form they could sign when bringing in photos or objects be best? A consent form would be good for the video/audio recorded interviews but what happens when people bring in their own photos to discuss their memories? Stephen didn't seem too worried either way. He just wanted the project to get going now he had some time to focus on it. He wanted people down at the centre, taking an interest and

getting involved, sharing photos and other things they might think to bring in.

(Field notes, Our Manchester probe, August 2016)

Divergent views amongst participants and project organisers, as well as from the researcher, meant that the negotiation of informed consent in the project was more complex than the institutional ethical guidelines or a written consent form catered for. My naivety in assuming that a written consent form would suffice is also worth noting. Whilst consent was acknowledged to be important, the practicalities of negotiating it were of less interest to the community development worker than the institutionalised researcher. In many ways, how consent was negotiated and discussed in the probes demonstrated consent as a 'surface' to show more complex negotiations of power and control.

6.2.2 Recruitment of participants

The three probes revealed how recruitment of participants occurred via an open voluntary process, rather than any specific strategy to attract a certain sample or type of participant. Recruitment and participation is a challenge for all social research. For example, many local authority surveys have very low response rates. Participants' recruitment was based on accessibility, and on who wanted to participate, rather than any specific sampling strategy. Perhaps this could be perceived as a weakness in the citizen social science approach; however, accessibility and the notion of openness – that anyone can participate – is an overriding ideal with citizen social science. Purdam (2014) notes that the volunteer observer methodology may encounter issues in terms of the type of people who volunteer and any preconceptions they may have. However, the methodology is based on ethically approved research design and on following a protocol and set of instructions, as was explored in the previous chapter 5 on how data is generated in citizen social science.

In the Our Manchester probe, issues around recruitment of participants, access and trust took a particularly interesting turn. The roles in the project were not very clear, making negotiations around such issues more complicated. However, it is worth noting that this was very much part of the nature of that sort of project on the 'higher' levels of Haklay's (2013) typology of participation, so a feature of the process of a

more 'extreme' participation project. It took many meetings with Stephen to discuss shared ideas and values before the project could go ahead. In terms of actually recruiting participants, the nature of the topic and the issues on which the project was based, entailed a greater level of consideration about how best to enrol participants in the project, and much of the locus of ethical practice was outside of the researcher's remit. Whilst the different roles and responsibilities were frequently explained throughout the project, they were not strictly adhered to, which added to many of the challenges of undertaking the Our Manchester project. In an interview with Stephen, the community development worker with whom the project was developed, in November 2016, he reflected:

Participants need to be able to waffle on, and to feel comfortable in who they're talking to. They also need to be able to trust who they're talking to, to not use the stories they're telling against them...you know? Things need to be private...There are issues around privacy... so like there's no way the project would work if you was going round doing the interviewing...people wouldn't feel comfortable with you cos they don't know you, you get me? So they won't be trusting you with their stories right?

(Stephen interview, Our Manchester Probe, November 2016)

Stephen's reflections on the difficulties of recruiting participants to the project, and also in encouraging people to share their stories and to talk about their experiences of living in the area and how this might have changed from the 1950s to the present, demonstrates his awareness of the challenges of the project. Furthermore, the dynamics and relations that existed between the different actors meant that recruiting participants, building trust and gaining access entailed further layers of discussions and decisions, beyond the remit of the researcher. It is possible to reflect and question whether it is really the case that participants would not be willing to make their stories public. Perhaps they would not want to or even think of telling the institutional researcher, whereas someone they know they would be able to relate it to, and they would be happy to let it be public. In this sense, what is at stake here is more the relation of the telling and the understanding of shared knowledge about the place and the context.

6.2.3 Covert measures

In citizen social science, a potential issue for the researcher is how to enable the ethical usage of covert measures. This was more of an issue raised in the Mass Observation probe and the Empty Houses probe, both of which aimed to engage participants to record their observations of specific occurrences, to be used in social science research. The ethics and validity of covert-based research methods have been discussed and debated (Purdam, 2014; Calvey, 2008; Spicker, 2011; Webb et al., 1999). However, as Purdam (2014) and Bloor and Wood (2006) note, where justified, these methods are not prohibited or deemed unacceptable by research councils and professional bodies such as the British Sociological Association in the UK (ESRC, 2010; BSA, 2002). Guidance from the UK Social Research Association (SRA, 2003) highlights that data gathered from observations of public places are available for research use without prior consent.

Arguably transparency and accountability when recruiting participants is an issue in any research rather than a specific issue with citizen social science. Whilst Purdam (2014) and Lyon (2001) amongst others, reflect on how the observer role for citizens could raise concerns about issues of surveillance, it is possible to suggest that participants were not acting as spies so much as being motivated observers and data collectors, as reflected on in the previous chapter. Purdam (2014) likens this to being an eyewitness to a crime or a witness in a court trial or participating in a neighborhood watch scheme, rather than any specific incitement to surveillance or spying. This is something that participants in the walking interviews, and also in the probe into the Mass Observation Project, reflect on, and it is detailed in the section below on issues raised by participants.

In the probe into the Mass Observation project the language to describe the project to potential participants, references the notion of 'going public' and suggests a level of discretion about being a Mass Observer (see Figure 6.2 below).

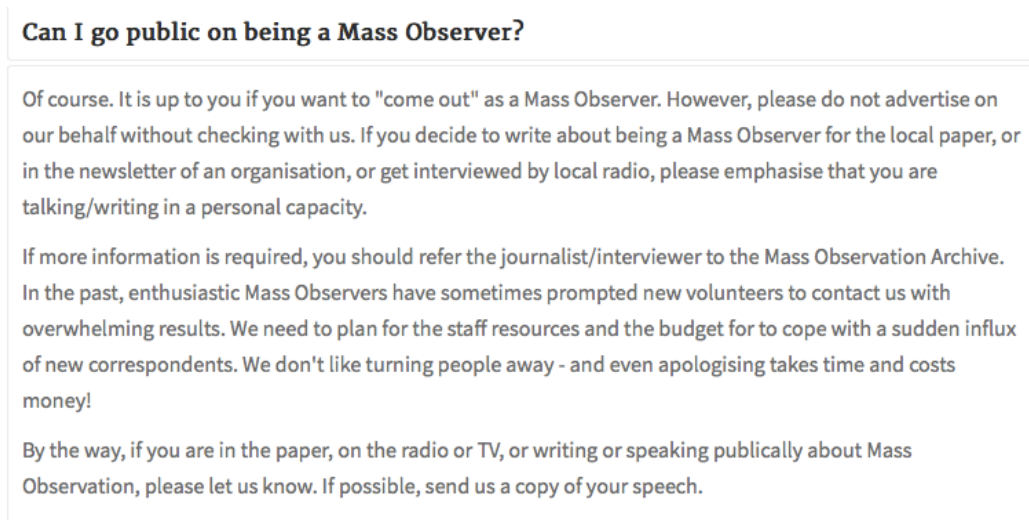


Figure 6.2: screenshot from Mass Observation website informing those interested in writing for the project about how to talk about being a Mass Observer

Source: Mass Observation website: <http://www.massobs.org.uk/write-for-us/faq>

In many ways an interesting tension arose here between the notions of opening up social science for all to participate, and the notion of covert observation, where many of the Mass Observers have not identified themselves as such or ‘come out’ about their role.

The approach to citizen social science adopted in the Our Manchester probe also raised questions around the roles involved in such an approach, particularly the positionality of the researcher in the project, the role of the academy, the role of the university in community activism, as well as the expectations of the academy on communities and third sector organisations. When Stephen introduced me to people in the community or talked about the project, he always referred to me as being from the University of Manchester, thereby setting me up as a representative of the university rather than an interested independent researcher. There appeared to be some reticence from the people present to work with a representative of the University, owing to the way in which previous projects had developed.

As previously argued, citizen social science can blur the boundaries between researcher and researched and so the responsibility for ethical practice necessarily is dispersed and spread amongst the participants, not just lead by the researcher.

Whiteman (2015, pp.14-15) suggests 'recourse to the authority of the individual researcher to be an anchoring move like any others, configuring the self strategically rather than as an authentic point of access to an ethical truth.' She argues that new orderings can only be generated 'in the face of the rejection of the ultimate authority of proceduralised ethics *and* the evident complexity of ethical maneuvering in research'. This highlights the different perspectives of different ethical practices and what their ethics, values and priorities are. Institutional ethical guidelines instil a particular type of ethical interrogation into the research, which gets confounded in the practical realities of doing citizen social science.

6.3 Ethical issues for Participants

This section examines the ethical issues raised by participants in citizen social science, which include anonymity, voice and representations of truths, and the meaningfulness of participation. Whilst similar to those raised for the researcher in citizen social science, as delineated above, they do not map on to each other directly.

6.3.1 Participants' Anonymity

Anonymity was an important issue to many participants in the citizen social science probes. All the responses to the Mass Observation project are anonymised, the Mass Observers are given an identification number and on each directive, they are reminded not to include identifying details as far as possible.

How can I be sure that my privacy is respected?

We are very careful about the privacy of our correspondents. We issue everyone with a number. We ask you to write your number (rather than your name) on all your replies to Directives. Only members of the Archive staff can link your number to your name.

To increase your privacy, we strongly encourage you to use initials or made-up names for the people you mention, and to do your best not to inadvertently identify yourself within your reply.

Your self portrait, your photograph, any letters or diaries, and any other very personal material you send us, are all covered by a 50 year embargo. You can ask for a longer embargo if you wish - or a shorter one. Fifty years from the date of leaving the project seems to satisfy most people's needs for privacy. It is only fair to say, however, that in the last analysis, no information is truly secure. If you send in information about illicit activities, the Archive might not be able to protect your privacy any more than a priest or doctor could.

Figure 6.3: FAQ on the Mass Observation website about the respect given to participants' privacy in participating in the project

Source: Mass Observation website: <http://www.massobs.org.uk/write-for-us/faq>

In the Mass Observation probe, some of the observers likened their experience of writing for the project to a form of *confession*. One Mass Observer conversely warns your care for anonymity may be otiose; big companies and terrorists have instant access even to mother's maiden name
(A1292, Female, 71, Being Part of Research, 2004)

However, in the Special Questionnaire issued in Autumn 2010, Mass Observers are asked directly about their thoughts on the importance of anonymity. Some suggest that anonymity allows Mass Observers:

to be more frank

(J3887, Female, SQ, 2010)

and to:

write exactly what I feel without fear of any consequences.

(G4530, Male, SQ, 2010)

In this way anonymity acts as a form of protection:

sometimes I write very personal stuff and need to feel secure in my privacy for protection

(K798, Female, SQ, 2010)

Anonymity also allows for honesty and can be ‘liberating’ (M1201, Female, SQ, 2010). Anonymity is clearly an important issue for participants, especially if they are sharing personal accounts and experiences. Another Mass Observer expands on this by suggesting that anonymity is only important during her lifetime:

[Anonymity] is very important to me, while I am alive, as I don’t want to face comeback from people who disagree with my views. Once I have died I do not mind if my words are in my own name.

(B4527, Female, SQ, 2010)

Privacy and being private is another ethical issue, which is asked about directly in the Directive on Being Part of Research. Mass Observers reflect on the limitations or not of what they would be willing to write about in a directive response.

In the Empty Houses probe, participants submitting information to the project were given the option of leaving their email and other information if they wanted to be contacted by the project or to receive further information about the Empty Houses project; however, the data was entirely anonymous. Two participants did this and were subsequently contacted to see if they might want to participate in the walking interviews, which one of them accepted to do.

In many ways anonymity challenges the very idea of citizen social science – if in citizen social science everyone is a researcher, or has the potential to be, how can you be an anonymous researcher and do ethical research? This does not seem to be possible in current conventions. In this way, citizen social science, by its very nature, has to make citizens participants and not researchers.

6.3.2 Participants’ voice and representations of truths

Participants in the probes also raised concerns about voice and representation and how, through participating in citizen social science, they can have a voice, an interesting contrast to the concerns for anonymity set out in the previous section. Voice, understood as a value for social organisation (Couldry, 2010), involves taking into account agents’ practices of giving an account of themselves and their conditions

of life. However, it is a problematic concept as Amin (2005) clearly articulates and risks being shrouded in paternalistic overtones. There is a sense in which writing for the Mass Observation project provided a valued opportunity for participants to voice their reflections on their own lives, as well as other issues or subjects around them. In the Mass Observation probe, many Mass Observers make references to the way the project gives:

fantastic information about the 'average Joe,

(B3133, Male, 20, Being Part of Research, 2004)

or highlights:

how one common person felt in his lifetime.

(E4111, Male, 70, SQ, 2010)

Another Mass Observer reflects on the title of the project and the way in which the project allows:

for ordinary people to have their say untrammelled by political or financial restraints.

(C2053, Female, 51, Title MO, 1993)

Any specification of how to define the *ordinary* person is not expanded upon in this directive response, but the use of the term alludes to the perceived hierarchy in the research process, and more broadly the ways in which histories and narratives are told. This same Mass Observer, some 11 years later makes another comment to similar effect when asked about being part of research:

History is written by the winners and about top dogs. The rest of us get little mention. So it is rare and important that some of us should have our say and for it to be preserved for others to read. A lot of it may be tosh (but then so is the official version), but it provides a rawer alternative to the history books.

(C2053: Female, 51, Being Part of Research, 2004)

This Mass Observer's reflections drew attention to the question of who can participate in citizen social science, who can generate data and who can be

represented – the Mass Observation project allows for a ‘rawer alternative to the history books’. It is a resource in which researchers can find “real” people’s ideas’ (B786, Female, 70, Being Part of Research, 2004) and where they can ‘learn from it and to remember that real people, just like us, were a part of it.’ (C2053, Female, 51, Being Part of Research, 2004). The reflections of the Mass Observers suggest they are clearly aware of the hierarchy in the research process. One Mass Observer expanded on this in terms of the potential analysis of the data:

Mass Observation is a record of people’s actual experience – as such I think it is valuable. I know that the material is looked at by researchers, and perhaps our writings are translated into a form with checkboxes to create “findings” but I would hope that the researchers who use the archive have a more flexible approach.
(B3010, Female, 40, Being Part of Research, 2004)

The Mass Observers reflected on how the data they generate would be analysed. This particular response drew attention to the fact that at times, actually the relationship between the researcher and researched is not blurred. The Mass Observers are very much aware of the hierarchies in the research process, and of who gets to decide how participants’ accounts are represented. ‘Findings’ is put in quotation marks to suggest that this Mass Observer was aware of the particular nature of the material generated in the project. She also contrasted the translation of the Mass Observers’ writing into ‘a form with checkboxes’ with ‘a more flexible approach’.

In the Our Manchester probe, Stephen states early on in discussions about the project, that

the community needs a voice because they can’t represent themselves
(Stephen meeting, Our Manchester probe, June 2016).

Stephen suggested that in some ways the community around the social centre where he works lack an ability to articulate and represent their requirements; they ‘need a voice’. He perceived the Our Manchester project as a potential opportunity to support such a voice to be developed, through his enabling participants to raise their needs and to help residents to help themselves. However, during the course of the project, at

times Stephen performed a gatekeeping role, determining who had access to whom and what, and when.

In discussion with one of the participants in the project, Adam (name changed), an older resident in the area who had brought in some of his photos to the community event in the social centre in November 2016, reflected on the project:

It's not about the *truth* – it's about telling your version of events so working with people to talk about what's important to them and the issues that matter to them today...The project speaks to loads of issues about how our area has been stigmatized and framed in a particular way. These photos we bring in and memories we share – they're not facts...we're not claiming them to be facts cos no photos are the facts are they? It's all about the discussions and sharing of memories and stuff...the discussions that are sparked by the photos themselves...that's what's important.

(Adam, community event discussion, Our Manchester probe, November 2016)

In this way, Adam reflected on what the project is trying to do in terms of sharing memories of the local area, and challenging external perceptions of how the area has been represented. He saw the photos and data in the project as a means of starting a conversation and trying to get at the heart of issues, rather than the facts in any objective sense. The conversation continued:

AA: do you think there are any ethical issues in terms of using people's photos?

Adam: I guess there are questions around how to define and conceptualise 'community' here? Who's excluded and included? Who can have a say? But it's an interesting one...I was keen to share my photos with the project as I'm always losing my photos and rubbish at keeping them in order or even putting them in albums or anything. It's like I'm losing my private archives...so sharing my photos with the project and opening them up and making them public might mean that they last longer?

(Adam, community event discussion, Our Manchester probe, November 2016)

Adam saw his participation in the Our Manchester project as a way of prolonging his memories and experiences, by sharing them and making them public. This links to the ways in which many of the Mass Observers in the probe viewed their responses as contributing to a social history of their times as a form of voice and representation. However, Couldry and Powell (2014, p.4) warn that the daily practices of grappling

with data and with the consequences of data analyses generate new questions about what and whose power gets exercised through such practices, and to what degree such exercises of power are satisfactorily made accountable.

6.3.3 Meaningfulness of participation

Whilst some participants were happy to contribute by collecting data, other participants seemed to question the ‘meaningfulness’ of participating in citizen social science. The probe into the Mass Observation project revealed how some of those writing for the project find value in participating as it gives them an opportunity to reflect on their lives or on previously unconsidered topics (see chapter 5). However, some of the walking interviewees in the Empty Houses probe raised the issue of whether participating in the project was in fact working for free:

I like the idea but there’s a danger of turning people into just working for free. It depends who it is actually serving and what the purpose of the project is and what impact it has on people’s lives.

(WI4, Empty Houses probe, December 2016)

This interviewee draws attention to the ways in which citizen social science can potentially mask the human labour, and the work that contributing to it entails.

The same interviewee argued for a role for citizens or non-experts in the analysis of the data, not just its collection, stating:

I was putting myself in the shoes of a citizen social scientist and...with everything that I’m involved with, I want to know the bigger picture... Could citizens not be scientists too? If you’re going to include citizens, they should be given the power to produce their own analysis, not just their own data. Otherwise they just end up doing the scientist’s job for free - and it’s the really dull part of the job...We have this view of science and social science as top down, where the scientist knows everything and science gives people tools to read the world...from above. But I guess it’s limited this way. The analysis that goes with the data collection is more social science. If people just collect the data there’s nothing in it for them...if it’s just about reporting stuff, it’s a really dull job isn’t it?

(WI4, Empty Houses probe, December 2016)

This walking interviewee suggested that the top-down process of collecting data, for scientists to use, is a 'really dull job', since it is the analysis of the data where the meaningful, and interesting, part of the research process takes place.

Another interviewee questioned the ethics of mobilising non-experts to collect data for researchers:

If I'm entirely honest, it's a cheap way to get people to do stuff...it's about getting people with less skills to do something you don't have time for. But then there's something like the Mass Observation Project which seems less bad...because it's respecting people's views more than getting them to do the donkey work.

(WI6, Empty Houses probe, December 2016)

The same interviewee reflected that:

It often seems to be about getting people who aren't experts to do things that experts don't have time to do...it's not like it's meaningful!

(WI6, Empty Houses probe, December 2016)

These reflections draw attention to how the process of participating in citizen social science is perceived to be meaningful in varying degrees by the participants who are concerned to better understand how the data they help to produce will be used. (see chapter 7).

Richardson (2014) warns of the risks of exploitation if citizens are merely research assistants rather than privileged respondents. This has been a critique of citizen science, which fails to provide a sufficiently empowering process for citizen participants, since citizens are not fully involved in all aspects of the research process, and professionals or academics retain overall control (Mirowski, 2017). However, such forms of data gathering are not to be dismissed as they can play important roles, as exemplified by numerous citizen science projects. Bonney et al. (2009, p.18) suggests that 'most projects labelled citizen science fall into the 'contributory project' model of 'researcher-driven data-collection projects', where scientists ask the question, determine the protocols, do the analysis, and members of the public collect relevant data.' Cohn (2008) argues that many undertake the work unpaid as an

everyday volunteering activity, which could potentially raise further ethical questions around the placing of a form of responsibility and pressure on the citizen. However, citizens may choose to participate in the collection of data for research as a civic act, which in itself is part of the wider goal of strengthening democracy through civic participation.

6.4 Addressing the ethical issues of citizen social science

The possibilities of citizen social science can entail the flattening of hierarchies in the research process as knowledge is made together. However, this creates new tensions in terms of ethics and the reproduction of inequalities, and the conflicting stances or perspectives of ethical practice. It can blur the roles of researcher, participant, and research subject (see chapter 5, section 5.3), but a hierarchy in the research process remains.

The previous two sections have shown how ethical considerations overlap and diverge between those participating in citizen social science at whatever level or in whatever role. However, since the possibilities of citizen social science suggest a flattening of hierarchies in the traditional research process, citizen social science can necessitate a relational ethical practice that is worked out together ‘on the ground’ (Heimer, 2012). This is to avoid the same inequalities being reproduced despite the opening up of the traditional research process and the blurring of boundaries between researcher and researched.

The politics of method (see section 2.3 of the literature review), and the power dynamics within that, are reflected upon in the Mass Observation probe. In an interview with the director of the project, she remarked:

We can’t pretend there aren’t power dynamics at play – especially the power of those in the university who are entrusted with these accounts. It’s vital to remember that the Mass Observers aren’t data subjects. They aren’t *them*! They’re *us*! We need to bear in mind that the person next to you might be a professor of history or graduate student. Or they might be a Mass Observer!

(Interview with Mass Observation Project director, June 2017)

This reminder that anyone might happen to be a Mass Observer raises the question of who participates in citizen social science, and draws attention to the differentiated nature of expertise. The Mass Observation's director's reflections above are both reassuring and in some ways unsettling, alluding to a sense of not knowing who might be observing whom. The comment also draws attention to the implicit power relations at play in the research process.

In many ways, there is a misalignment between the normative research culture of university taught and 'professional' ethics practice, and the practical realities of doing citizen social science. This is best evidenced in the Our Manchester probe (2), where in many ways I tried to impose an institutional ethical perspective, which was not always appropriate for the needs of the project. Undertaking the Our Manchester project revealed that what is important in the academy is not necessarily what is important on the ground. Differences between the normative research culture of the academy and the practical realities of undertaking co-produced citizen social science manifested in the way in which ethics and consent were arguably not seen as particularly important by some participants in the Our Manchester project and by the community development worker, with whom I coproduced the project. There was a stark difference between my concerns of the 'professional' or 'institutional' researcher and those of the community development worker as reflected in my field notes of the Our Manchester project:

I'm spending so much time as a trained researcher worrying about the ethics and consent forms and what's to be done with the data, and how to tell people about that and how to frame the project. But Stephen's super relaxed, doesn't really care about so many of those issues and, perhaps much to my annoyance, is quite happy to go with the flow and see how the project develops. Perhaps one of the biggest issues I'm facing with this project is that it consistently totally fails to go according to plan and I never know what will have happened when I get to the centre and catch up with everyone there. I was worried nothing had happened as Stephen had been ill and so had been off sick for a week or two, but when I got in I discovered he'd reordered all the researcher packs I did, taken out the consent forms and also been going round talking to people, testing out questions and linking things up. He was more interested in getting things happening rather than sticking to what we'd agreed.

(Field notes, Our Manchester Probe, October 2016)

The field notes from the Our Manchester project demonstrated how the notion of 'consent' is a surface for the particularly complex issues of relationships and power and responsibility in this form of citizen-led citizen social science.

Suddenly it seems like the Our Manchester project is back on again and Stephen refers to it as his baby. There was a fair amount of discussion about whether the findings from it could be fed into a strategy discussion for the future coordination of these types of spaces. It also seems to be a very fluid project, which broadly covers many of the aims Stephen has with the centre and where he's at now, in terms of combatting isolation in ageing people in the community. But it's a question of how to actually make it happen. I'm wondering whether I should help with some of the interviews, to get the ball rolling. Or whether it's never going to actually start/get off the ground? It's like we keep talking about it, and the discussions go round and round but nothing actually happens. I potentially need to project manage it more or at least to push harder to get it sorted and to work within the given time frame. I stated to Stephen when he asked that it needs to be done by Christmas at the latest.

(Field notes, meeting with Stephen, Our Manchester Probe, October 2016)

These field notes from the Our Manchester project demonstrated my reflections on my role in the project and the challenges of maintaining the relationship with Stephen, who sometimes adopted a gatekeeper role, in terms of the developments of the project. These field notes also shed light on the complications of pursuing a citizen social science approach when the roles remain unclear, and it is hard to know who is in control, although this could be argued to be consistent with the complexities of undertaking coproduced research (see section 2.2.3 of the literature review). Richardson (2014) discusses how citizen social science and other community based participatory research approaches argue for a deconstruction of power in the research process. A commitment to equality in the relationship between citizens or community researchers and professional scientists is seen as crucial, which is not always the case in citizen science and Public Participation in Scientific Research (PPSR). Such framings for approaches 'retain power and control over 'science' for professional scientists, and within academic institutions; all the hallmarks of an academic elite-dominated model are implied by the PPSR schema' (Richardson, 2014, p.37). Richardson (2014) also highlighted the importance of a commitment to the values and principles of empowerment and participation, and equality in relationship between academics and non-professional researchers, something that was strived for

in the probes in this thesis, but something that was not always achievable. However, the extent to which citizen social science successfully challenges the privileged position of the researcher, and to what extent many of the initial imbalances of power and inequalities are inadvertently reproduced in the process of doing citizen social science, remains to be seen.

The limitations of many claims about ethics are that they risk fixing such claims and ‘anchoring’ them in specific stances (Whiteman, 2017). Citizen social science has the potential to dislodge this anchoring because it opens up the roles in traditional social science research and blurs the boundaries between researchers and researched. The ‘authentic locus of ethical practice’ is mobile and a shared responsibility. The probes specifically examined the ethical issues that are raised when the traditional roles in the research process are opened up and reconfigured. In this way, ethical practice a form of relational ethics (Banks, 2013; Austin, 2012; Whatmore, 1997); it is a practice of negotiation and discussion.

In many ways the three probes constituted a form of ‘working it out together’; even the probe into the Mass Observation project, in the ways in which the participants make sense of and interpret the directives, and the particular dialogic relationship they had with the project managers, and director. Each probe is an acknowledgement of the situated, contextual nature of knowledge production, which aims for a more agile knowledge. However, whilst this very much reflects the possibilities of citizen social science, the practical realities are still somewhat removed from this. The question remains of how to get away from the value-laden assumption that greater or more democratic participation is best?

Implicit in the potential of citizen social science is the notion that participants in the research are empowered to understand a mechanism that is normally kept hidden from them. However, the analysis of the probes in this thesis suggests that rather than any form of democratisation of social science research, citizen social science can entail more of a process of working out together – as in the case of the walking interviews in the Empty Houses probe, and in the case of Our Manchester probe, the participants actually were not as concerned about the ethical issues and standards of

the normative research practice. This is particularly true in the Empty Houses probe, where the walking interviews constitute a form of ‘doing together’, a form of committed or engaged social practice in reporting empty houses together. In this way, the data generated from these interviews is dialogic, reflecting an active dialogue between the participants and the researcher, trying to make sense of the processes and practices of citizen social science, and discussing it whilst walking. This practice draws attention to the notion of different situated knowledges, and the quality of insights, and that an expert position should not be a monopoly on truth and insight. Arguably, undertaking ethical social science research is a complicated process, with many questions of expertise, power, professionalization and standardisation are raised, as the probes demonstrate.

The experience of asking the walking interviewees to reflect on something they had not necessarily considered before gave rise to interesting methodological challenges. Asking the walking interviewees directly in such ways engaged ‘citizens’ in citizen social science unequivocally and immediately. The delineations of what constitutes a probe, as presented in chapter 4, suggest that this is very much part of the process of urging participants to consider unfamiliar perspectives, and to re-examine activities in new ways. However, the very act of undertaking such interviews, drew attention to how citizen social science intrinsically prompts an ‘opening up’ of research and a sense of ‘working it out together’ as referred to above. This links to some of the reflections of the Mass Observers about their enjoyment of writing directive responses since the open-ended questions encouraged them to think about previously unconsidered topics. When asked whether they considered participating in the Empty Houses Project to be citizen social science, the same walking interviewee continued:

WI3: So I think it’s related a lot to different strategies for participation but I think the...not the missing link, but the problem with it is that it’s got social science within the kind of title... which immediately challenges notions of social science... and it’s almost undone itself before it’s begun. Whereas maybe a name change... would make it a lot easier to you know...utilise in a practical sense...because arguing what social science is... is such a large and unfathomable area, I really wouldn’t go there...and it’s not that useful necessarily... so if it’s a very practical way then yes I think... and I don’t think a person who’s looking at citizen social science should be scared about having a framework... but maybe ... putting a framework immediately links it to expertise and kind of the

professionalism of the method... but... it doesn't then mean that it's taken out of the control of the citizen... cos they've then got the choice to take part... and they're the ones collecting the data so... if that makes sense?

(WI3, Empty Houses probe, December 2016)

These reflections on citizen social science as an approach are noteworthy in the way in which they draw attention to the tension between, on the one hand, a framework into which to put one's observations that formalises the approach and almost 'professionalises' it, as the walking interviewee alluded to. On the other hand, the opportunity for participants to report how they want, with the control over the data remaining in the hands of the participant. This walking interviewee reflected on how the very title of citizen social science is potentially misleading in its allusion to 'social science' and yet they call for the adoption of a 'framework' to formalise the submissions to the project. Another walking interviewee reflected on similar issues:

AA: What do you understand by citizen social science?

WI5: I suppose it stems from... my idea of citizen social science stems from my idea of kind of...social arts and participatory arts projects...so that's kind of...or participatory research methods. And it's all a bit... in a bit of a tied up mess. And so I kind of think of them as overlapping, and every project is different and you take a different approach and you all kind of... every project will have a different emphasis on a different community which suits that community or doesn't or whatever... but it's about... I guess in theory, to my mind, it's about identifying a particular group of citizens ordinarily who, whether they're lumped together by way of socio-demographic or some shared interest or some shared geographical location where there's a kind of a two-way thing where you're either making art or making research, and they're doing something which essentially enriches their life, whether it's their local community, their local space, or even in terms of giving them skills or a way to spend time with other people. So yeah I guess I've always thought of citizen social science as being part of that...yeah.

AA: And in terms of the empty houses project, specifically, do you see that as social science?

WI5: The empty houses project? It is! It is!

(WI5, Empty Houses Probe, December 2016)

This walking interviewee's reflections on what constitutes citizen social science can be seen to encompass the nature of all three probes in this thesis, and focuses on the empowering and enriching aspects of participating in citizen social science. The walking interviewee commented on the ways in which each citizen social science project may differ from one to the next, and is tailored to the particular contextual

requirements of the aims of the project. According to the interviewee these varied and bespoke projects can still be identified as social science in their approach but with an overall experience of doing something together.

6.5 Conclusion

The possibilities of citizen social science can entail the flattening of hierarchies in the social research process as knowledge is made together. However, this creates new tensions in terms of ethics and the reproduction of inequalities, and the conflicting stances of ethical practice. Participants can subscribe to different codes of ethics to academic ethical practice, which draws attention to the politics of knowledge making and the difficulties of agreeing on the need for, and content of, reasonable practices and sufficient standards for ethical research.

This chapter has explored the ethical considerations of mobilising citizens to generate data for social science research. It has set out the ethical issues raised in the practices and processes of citizen social science, and shed light on the ways in which traditional roles in the research process are being reconfigured. The analysis of the probes revealed how ethical practice in citizen social science is a practice of negotiation and discussion, a form of relational ethics (Whatmore, 1997; Austin, 2012; Banks, 2013) and shared responsibility amongst participants. It has drawn attention to the inequalities in ethical education and training; citizen social science is a messy, non-linear relationship between people. The opening up of roles in the research process is not inherently democratic.

A key point that this chapter serves to highlight is that an ethical practice of citizen social science requires on-going dialogue and an adjustment of ethical practices in the process. Perhaps too obvious a point but the more participatory the type of citizen social science being undertaken, the greater the need for relational ethics, and one in which all participants are involved in setting the ethical terms of the project. There are clearly variances between different communities of ethical practice and it is unreasonable, or potentially inappropriate, to assume that all participants will approach the research mechanism that is newly opened up to them in the same way

as academic researchers. However, citizen social science necessarily requires openness, flexibility, and reflexivity in a more prominent way than other research practices, and thus is also conducive to ethical reflexivity.

This chapter has explored the notion of citizen social science as a form of open social science, where an expert position should not be a monopoly on truth and insight. It also reflected on how many pre-existing inequalities can be reproduced under the apparent banner of opening up the traditional roles of the research process. The analytical advantage of such an approach is to allow for a consistent probing for what happens when citizens are involved in a more participatory way in the traditional roles in the research process. The chapter revealed that the ethical issues which citizen social science gives rise to are not so different from those raised when doing traditional social science research, or from those raised when undertaking participatory social research. The concept of relational ethics serves to highlight the necessity for redistributing the locus of ethical practice amongst all those who participate in citizen social science, rather than focusing the responsibility solely on the researcher.

The following chapter (8), the third and final empirical chapter, explores the potential uses of the data generated by a citizen social science approach and the possibilities and challenges associated with that. Indeed, how the data might be used was something of particular concern to walking interviewees in the Empty Houses probe, but also in other ways in the probe into the Mass Observation project and the Our Manchester project.

Chapter 7. 'Facet 3' - Data 'use' and its discontents

7.1 Introduction

If citizen social science entails the generation of data for social science research, it is also necessary to consider how the data generated can be used at the interface of social science and policy. Having an impact on policy makers is a challenge many social researchers and the wider public face. Harney et al. (2016, p.317) note that 'there are new agendas called 'impact', 'public engagement' and 'co-production', all of which urge us to use our knowledge for social benefit and to produce knowledge through collaborations with the wider community.' Citizen social science is perceived to assist in addressing such agendas, as set out in the key facets chapter (see chapter 3). However, an analysis of the attitudes to 'data use' from the three probes of the thesis (one reusing Mass Observation Archive data; one involving citizens reporting observations of empty houses; and one examining a community based history project) problematises this. Moreover policy and impact agendas have performative dimensions that further problematise this (Oman, 2017). 'Policy narratives not only represent the world but enable actors to intervene in and perform roles within it (Felt and Wynne, 2007; Law and Mol 2002). In this way, questions of data 'use' are far from straightforward.

This chapter examines how citizen generated data can be 'used' and by whom. It also reflects on the 'quality' of the data produced and how it could be used to inform policy decisions. Quality is a term that is frequently brought into discussions about citizen-generated data. This chapter focuses on how different social actors view the potential use of citizen social science data, and explores how such an approach can assist in tackling a pressing social issue, such as homelessness in the case of the Empty Houses probe 2, and tackling social isolation and access to services in the case of the Our Manchester probe 3. In a policy context there appears to be much interest in the potential of citizen social science to generate data to be used to inform policy on a range of different issues (Richardson, 2013, 2014), and in participants as a future resource, as demonstrated by the traction participatory and citizen science

approaches have had in the international development sector (Haklay et al., 2014). Citizen social science is perceived to be a strategic tool for gathering data in a time of constrained resources. This raises important questions about whom ultimately citizen social science is for and who benefits from its articulation, linking to wider debates about the idea of an emancipatory social science.

The previous chapter examined the ethical issues arising from a citizen social science approach, both in terms of the issues raised for the researcher, and for the participants. It demonstrated that the fixing of the locus of ethical practice on the researcher, as is the case in many conventional social science research approaches, necessarily does not always work for citizen social science and new challenges are posed. This is particularly the case given the ways in which the possibilities of citizen social science entail the flattening of hierarchies in the research process. However, the analysis of the different probes highlights how a hierarchy in the research process always remains, and thus citizen social science requires a relational ethical approach, in which the ethical responsibilities are shared amongst, and negotiated between, those participating. The ethos of 'working it out together' is very much present in citizen social science, as is discussed in chapter 6.

Each of the three probes of this thesis examined a different type of citizen social science and therefore this chapter considers data usage in each probe separately, rather than providing a cross-probe analysis as in the previous two empirical chapters. It is necessary to drill down separately into the particular facets on data usage that each probe generates, rather than switching between data types and probes under a thematic heading. This allows for a closer inspection of the affordances and capacities of the different forms of citizen social science probed for, and in the ways such different types of knowledge and data can be used. Thus, the chapter is structured into three sections: reflections on probe 1 and the use of the Mass Observation data as a rich longitudinal qualitative data source provide a grounding in the second section. A discussion of the usability of the data generated in the Empty Houses probe (2) highlights the difficulties of making citizen social science data policy relevant; this is presented in the third section. The utility of the data generated in the Our Manchester probe (3) questions how the community might be

able to use of citizen social science data for the community and attempts to tackle social isolation. This is presented in the fourth section of the chapter.

7.2 'Use' of Mass Observation Data

Mass Observation project respondents and directive makers develop a new form of 'scientific' enquiry, working together. Reflections on motivations, practices of observation, analysis and interpretation are an integral part of the interaction. In making data, questions about data arise. What counts as data? What does the data capture and what escapes capture? The probe into the Mass Observation project revealed how data is never 'about' the social world but 'of' the social word.

Reflecting on the potential uses of the Mass Observation data as a rich longitudinal qualitative data resource raises challenges in terms of doing justice to the potential, and complexities, of the project. There is an inherent 'messiness' to the data, rendering it seemingly hard to 'use'. It is notable how some researchers have warned of the difficulty of using Mass Observation documents as research materials (Pollen, 2013; Lyndsey and Bulloch, 2014; Savage, 2007) owing to its particularly distinctive research method. Pollen suggests that 'inconsistency, heterogeneity and even incoherence are part of the world we live in. The mixed and disruptive methods of Mass Observation provide a unique means of access to that experience' (Pollen, 2013, p.18). Savage (2007) suggests that the advantages of having a messy qualitative dataset should be seized upon, and Sheridan et al. (2000, p. 285) note the importance of retaining some of that messiness in accounts of the Mass Observation Project 'lest they become simply straightjackets that fracture the integrity of the reality they purport to "represent"'. In addition to the messiness of the data in its own right, practical issues such as legibility of handwriting and the material properties of the data, are worth bearing in mind when considering how to make use of the project data.

In an interview with the archivists of the project, one of the main challenges of the project surfaced. Researchers tend to approach the project with preconceived ideas

about the data that will be produced and how the data can be used. A Mass Observation project archivist explained:

One of the main challenges is actually working with the researchers. Often they arrive with a pre-conceived answer that they want people to write and what they can do with the responses once they come in. So the challenge is to unpack the researchers' questions and to formulate questions in a way that doesn't alienate, for example, all the male respondents. But we've got thirty something years of experience in this so we hope the researchers might take advice some of our advice that you can't know how Mass Observers will respond.

(Interview with archivist and project librarian, May 2016)

The archivist and project librarian draw attention to how Mass Observation is a unique resource for researchers, but one that requires a level of understanding of the specificities of the project, its aims, and the context in which it was set up, in order to be able to consider using the data. Whilst careful questionnaire design is an important part of any social research process, it is interesting that researchers perceive the Mass Observation project in a different light.

As explored in chapter 5 on the practices and processes of generating data, and the challenges for research design, the Mass Observers highly value the open-ended nature of the questions. They are free to write as much or as little as desired, making writing for Mass Observation in many ways 'quite a pleasant escape' (G4530, Male, 21, SQ, 2010) and therefore almost a luxury opportunity for self-reflection, and to step back from the duties of the everyday. Another Mass Observer wrote:

In writing this reply I feel I was mostly conscious of a space to think through something for myself and that it may be read by someone else or used in research seemed almost incidental.

(B3154, Female, 41, Being Part of Research, 2004)

An opportunity for self-reflection is one of the key motivations for participating in the project for some Mass Observers, above consideration for how the data might be used. Another Mass Observer saw participation in the project as a 'very private' experience (G4530, Male, 21, SQ, 2010), that is, like writing a diary or school assignment. Another Mass Observer expanded on this stating:

I think I write mainly for myself and if someone else is interested enough and capable of putting it into context with other pieces of information to help make sense of this world we live in then that is a bonus.

(B1426, Male, 69, Being Part of Research, 2004)

This Mass Observer articulated that his main motivation for participating in the project was to write for himself; he also reflected on the challenges of 'using' what he has written, in conjunction with other responses 'to help make sense of this world we live in'. This links to previous discussions about the 'expertise' involved in data analysis in social research (see chapters 2 and 5).

Another Mass Observer stated that writing for Mass Observation is:

good for the soul because it makes me think, and thinking makes me face up to what I am.

(K2241, Male, 61, Your Views on MO, 1990)

Participation in the Mass Observation project can provide an opportunity not only for self-reflection, but also to reflect on previously unconsidered topics, which many participants seemed to value highly. Participation in the Mass Observation project is different to, for example survey questions and traditional forms of social research, since the discursive directive is capable of eliciting long reflective essays on a subject in a way a more structured questionnaire cannot (Sheridan et al., 2000). In this way, in making data, questions about data arise and reflecting on data 'use' in the Mass Observation Project is a problematic notion. The Mass Observers' reflections seem to make this visible, and sometimes they almost seem to observe this themselves, and yet, how does one analyse this?

In the Special Questionnaire issued in 2010, participants were asked if the fact that some directive themes are commissioned by researchers mattered to them; they were also asked whether they noticed any difference between those directives that are commissioned, and those written by the project managers themselves. Some respondents were positive about the notion that their responses might be used for research. One Mass Observer responded:

I do like the idea of my words helping someone with their research, but I take them all seriously.

(B4527F, SQ, 2010)

This Mass Observer suggested they view their role of observing as important and non-trivial, and they feel positive about their directive responses being useful for researchers, even if they refer to their contributions as simply 'my words'.

Another Mass Observer commented to similar effect:

I like the idea of providing material for researchers; this makes well considered replies even more important.

(D996F, SQ, 2010)

This Mass Observer's response suggested they felt positively towards the notion of the 'material' they provide being used by researchers, and that it gave them even more incentive to think carefully about their responses. Another also stated:

I like the fact that some of our directives are commissioned for I know that they definitely will be used.

(H1806M, SQ, 2010)

This Mass Observer's response links to some of the walking interviewees comments discussed in chapter 6 about knowing that responses or data submitted will be used and that therefore the act of responding, or reporting one's observations, has purpose. Another Mass Observer stated in response to the Special Questionnaire:

No I am pleased to help. I like anything that helps me to reflect on my own life, and also that is of help to others.

(E4556M, SQ, 2010)

The responses also revealed some of the motivations behind the positive attitude. The responses suggested Mass Observers like to know that their responses might be used by researchers, in addition to what they might get out of writing for the project in terms of an opportunity to reflect on particular issues, or indeed their own lives. Another Mass Observer stated, in response to the Special Questionnaire question: 'What do you think you get out of writing for MO?':

I know as a historian, how important MO is as a social voice. I couldn't do the research that I enjoy without it. The pleasure that I derive from the knowledge that I may be able to help other historians understand what today is like is really important to me.

(E4556M, SQ, 2010)

In this way, it is significant for some Mass Observers to know that other researchers use their directive responses. This Mass Observer viewed the project at a 'social voice' to enable historians to better understand the current context. However, there are some dissenting perspectives. A small number of respondents were more critical about commissioned research. One Mass Observer also suggested that

with commissioned themes, I do feel slightly that I am doing their research for them and feel rather less committed.

(W2322M, SQ, 2010)

This comment is an interesting reflection on the importance of the Mass Observers own personal motivations for participating and writing for the project. Another Mass Observer reflected on the question: 'what factors do you imagine would stop you taking part in Mass Observation?' by describing the pleasure of participating:

I can't imagine that I would stop taking part in MO because I didn't have time or inclination because you can write as much as you like, and it is quite a pleasant escape to write for MO. If the directives became things I simply didn't have anything to write about then I would stop taking part. Equally, if I felt the information was going to be used in some way commercially, or that commercial interests were dictating the directives.

(G4530M, SQ, 2010)

This Mass Observer reflected on how the commercial use of his responses might make him reconsider his participation in the project. This is particularly interesting given the fact that the first wave of the project became a market research organisation in the 1950, before stopping due to lack of funding in 1951.

Questions of 'quality' and validity of the data are problematic with regards to Mass Observation. The project archivist and librarian note that:

The project can be called upon by lots of different disciplines. The commissioning of directives is usually done by social scientists, and then they use the data from that commission for their specific projects, but it

then gets put back into the pot for reuse by historians and others for whatever they're up to. There's now an increasing interest in reusing the data in social science. This is now almost becoming of interest to writers who are seeing it as part of a longitudinal project with a legacy since 1937.

(Interview with archivist and project librarian, May 2016)

The question of the re-use of qualitative data is a topic of ongoing debate in the social sciences, particularly since it is a means of examining patterns and processes of historical change (Moore, 2007; Savage, 2007) and generating an investigative epistemology (Oman, 2017; Mason 2007) to examine how knowledge is produced and policy agendas formed over time.

Owing to the creative methods of Mass Observation, it had a complex relationship with the academy and there is considerable debate about the methodological and epistemological nature of the project (Bhatti, 2006), particularly in terms of the status of autobiographical directive responses in generating sociological theory generally, and the representativeness, accuracy and relevance of the data generated in the project (see Busby, 2000, and Sheridan et al., 2000, for an overview). The second wave of the project was not subjected to the same methodological dismissal as the first wave (Pollen, 2013). Purbrick (2007, p.168) suggests that Mass Observation was invested with new authority because of two fundamental intellectual shifts: 'the re-evaluation of signs of subjectivity in academic practice as the only source material of social life that we have' and, additionally, the embracing of 'the interpretive role of "informants" as 'mediations of subjectivity, performances of identity'. For these authors, subjectivity is not so much a source of bias or error. It is embraced and valued as a form of emotional richness (Shaw, 1994) that researchers, informed by new approaches to the interpretation of qualitative social and historical data, can analyse. Furthermore, the project appears to be entering a phase in which its experimental approaches are highly valued, with Adkins (2018) reframing Mass Observation as a site for speculative research.

7.3 Usability of Empty Houses Data and the Policy Interface

This section presents the analysis from the Empty Houses probe in relation to questions of the usability of the data generated in the project. The elements that constituted the probe were not only the project itself, where people could send in their observations of empty houses to the online website, and the walking interviews to explore the practices, affordances and challenges of actually observing and reporting. The probe also included a series of nine interviews with policy representatives and other practitioners and campaigners who may have been interested in using the data generated by the project. These multiple data sources are reflected on below.

How the data from the Empty Houses probe might be ‘used’ was an issue of primary concern for walking interviewees, who wanted to know who would be using their observations and to what ends. It was also an issue that very much affected their motivation and desire to participate in the project and some stated it as a potential deal breaker, when asked about what, for them, may constitute a barrier to participating in the project. The information on the Empty Houses Project blog¹⁵, as well as much of the campaign surrounding the project stated that the aim was to work with local authorities, charities and other interested organisations and individuals, to try to bring empty properties identified back into use. This was also the information that was given to the walking interviewees.

However, how the data was to be ‘used’ and by whom, was a topic of discussion in the walking interviews, as a way to probe and explore together options and approaches and ideas for using the data. Interviewees drew attention to the importance of knowing how the data they might help generate might be used:

AA: So you were saying earlier... you’d want to know... what the data was going to be used for?

WI6: If it was a random thing, you’d want to know the purpose of it. I would anyway. Because it’s not a particularly fun thing to do! So yes are you doing it for a purpose or...yes I would want to know yeah. But again maybe that’s my nature?

¹⁵ <https://emptyhousesproject.wordpress.com>

(WI6, Empty Houses probe, December 2016)

This walking interviewee articulated the importance of knowing the purpose of the project, and therefore how the data they participated in generating, might be used.

Another walking interviewee reflected in more detail:

AA: Do you think knowing what the data would be used for is important?

WI1: Yeah I think so yeah. I mean that's it. Cos if you don't know...I mean I wouldn't know what happens to it. So if the council is taking in all that data, what could we say? You may not want to know about that. I mean people could be using the data illegally or in a way that is actually technically helping them...

(WI1, Empty Houses probe, December 2016)

This interviewee drew attention to the ways in which not knowing about how the data submitted to the Empty Houses project might be used, and by whom, might affect participants' likelihood to report. This response also highlights the politics of data use, and how the data might be 'used' to very different ends. Another interviewee suggested that the data could be useful to chart trends over time, or at least that the data might be symptomatic of bigger issues:

AA: Do you think people could use that information?

WI4: No definitely! It's definitely important for...the council, or for communities in general...just because you can also spot if it's a symptom of something bigger, a bigger problem...kind of follow the tendencies and follow some patterns throughout the years of are there more maybe empty houses in that year and less in another year and then act on it just to house people....

(WI4, Empty Houses probe, December 2016)

This interviewee construed 'use' of the data on empty houses from the project as something that the council should do, in many ways enacting the expectations the local authority interviewees articulated that they could not meet, as will be set out below. This conception of data 'use' by the council is in contrast to the comment of Walking Interviewee 1 above, who drew attention to the possibilities of using the data for one's own benefit, or using the data 'illegally' – though the latter was not expanded upon further.

One walking interviewee suggested a possible way to use the data would be for community groups or grassroots initiatives to hold officials in government to account:

AA: So that idea of doing something with the data and not just collecting it...and active resistance was interesting?

WI5: Yeah I mean I don't think it always has to be about resistance...but I think there's definitely a difference between handing over data to help a local authority or the government or whatever ...and having a community come together to collect data to basically affect change and also to say basically hang on government! Are you lying to us? Which obviously I'm a great fan of doing that!

(WI5, Empty Houses probe, December 2016)

This walking interviewee contrasted the 'handing over' of data to a local authority to act on, with a community coming together around a project to challenge official narratives and to hold official decision makers to account. In this way, participants in the Empty Houses probe were concerned about the ways in which the data might be used.

The policy and practitioner interviews, conducted as part of the Empty Houses probe, shed light on a different perspective. Interviews with members of the local authority, as well as with housing practitioners on the one hand, highlighted the ways in which citizen generated data could be used to supplement existing data sets, to bring a more nuanced understanding to the official statistics, and eventually as a way to try to bring empty houses back into use. On the other, interest in the data generated by the project was also shown by property developers, and other organisations and individuals, with more commercially minded interests.

The approach adopted in the Empty Houses project, whereby citizens are encouraged to send in observations of empty houses in their local area, is not a new approach. Every local authority in England has an area on its website where people can report empty houses, in a very similar format to the Empty Houses Project. Some local authorities even have a dedicated empty houses team that are focussed on trying to manage information about empty houses and where possible to bring them back into use. The Empty Houses teams work with the official data on empty houses, which is

indicated via council tax payments. Interviewees from the research team and empty houses team at a local authority explained:

Interviewee 1: On the empty homes in particular, so our indication of an empty home is usually through council tax. So if there's no council tax being paid or is it discounted? It depends who's being paid...

Interviewee 2: It used to be a discount but then the classification changed for council tax so we actually use that for the base for them... so we've got the historical one, but we've also got the land registry one so we've got the information that we had and we've got an empty homes list for Manchester. All the other authorities will have the same sort of list. So across Greater Manchester you'll have something like 20,000 long term empty homes. So there's long term empty homes that have been empty for over 6 months. And the normal ones that are sort of part of the functioning market that are less than 6 months. So we have a list. At the moment since the classification changes there's about 1,600 long term empty homes so they're the real core ones that we need to sort or deal with.

(Interview with local authority team members, January 2017)

The official way to determine if a house is empty is via council tax payments, which can be cross checked with Land Registry data which is available to the empty houses team. These statistics can then be added to by reports of empty houses on local authority websites or, for example, from the Empty Houses Project. However, as the interview with members of the research team and empty houses team of a local authority confirmed, reporting rates on local authority websites were low. Furthermore, an interview with the Empty Houses Network confirmed the lack of clarity surrounding this data and how it is used:

Some local authorities have forms on their website that you can fill in to report an empty house, but it's unclear who actually reports and what's done with the information when people do report.

(Interview with the Empty Houses Network, November 2016)

The interviewees suggested that there was the possibility of crosschecking submissions to the Empty Houses project with the official statistics, calculated by council tax payments and thereby attempting to validate the data. The question of the lack of clarity in terms of how the data might be 'used' is an important one for participants, as set out above.

When asked about the role of citizen generated data, one local authority interviewee responded:

AA: So would you say there is a role for citizen generated data or citizen collected data? Would you use it?

Interviewee 1: Definitely! Definitely! The point that I'm making is that I don't think citizens understand that it's their role, despite errr...I particularly remember Eric Pickles talking about that, that when they did the first round of cuts in local government, that's what the politicians thought they could drive. So basically instead of the nanny-state, if you like, that's how Tories would define us, the 'nannies'...and instead of the nanny-state doing stuff, what they wanted was citizens to pick up the litter, to make sure the houses weren't empty, to look after the elderly neighbour, to clear the snow out of the front path...all those things. And I think citizens think it's our job.

Interviewee 2: Yeah massively.

(Interview with local authority team members, January 2017)

This comment highlights the mismatch in expectations between what policy makers expect of citizens – to collect data and participate – and their perception of citizens not seeing this as their responsibility. Participants in the walking interviews were precisely concerned about how the data might be used, and therefore were reticent to participate. The notion of citizen responsibility for data generation links to comments made by the Mass Observers about their sense of 'duty' to write for the project. It also links to comments in the walking interviews of the Empty Houses probe, about participants considering it their 'duty' to participate. Later, Interviewee 2 added:

But to answer your question, when people tell us, we definitely act on it. The problem is, that because of our capacity, we are very much reliant on people telling us. So if they don't, or they just kind of moan about it to themselves, or we don't know about it, then we can't deal with it. Because we just don't have enough capacity to do these kind of surveys that we used to do in the past.

(Interview with local authority team members, January 2017)

The local authority interviewees drew attention to the importance of citizen-generated data in a context of constrained resources. They referred to the 'good old days' when they had the resources to do surveys on empty properties in each ward, and develop 'a list of the top twenty empty properties' (Interview with local authority team members, January 2017). One of the interviewees reflected on this:

Interviewee 1: We used to go out and look for them! We just don't have the capacity for it now!

(Interview with local authority team members, January 2017)

In many ways, the views presented here around data use constitute the perspective of citizen generated data as a way to help cover the lack of research budget available to the local authority in a time of constrained resources. Manchester City Council has had over a third (37%) cut from its budget between 2010 and 2016 due to spending decisions taken by central government. These cuts have brought about increasing levels of poverty and homelessness in Manchester, and the pressures on local service delivery are acute (MacGregor and Pardoe, 2018; Etherington and Jones, 2017).

The language and tone of the interview with the local authority research team and empty homes team members was particularly entrepreneurial, with empty houses being viewed very much in financial terms, with the incentive to ensure they do not remain long term empty to avoid any form of drain on local authority resources. The local authority interviewees suggested an awareness of a mismatch between public perceptions of the responsibility of dealing with the issue of empty houses versus the perception of the local authority about what should be done, and by whom.

Interviewee 1 explained:

Interviewee 1: What I'm finding quite interesting in this is that the perception of these issues is very different from our perception as a public agency. So we look at that and we see the economic missed opportunity, we see that it's a problem in a neighbourhood, all those kinds of things. But obviously people walk past and think well that's none of my business. It's someone else's home.

(Interview with local authority team members, January 2017)

These reflections on the differences in perception of the 'problem' of empty houses are interesting in the lack of reporting in the Empty Houses probe. Later in the interview, interviewee 1 continues:

Interviewee 1: You see the other thing that from a social research perspective always makes me wonder is... there's lots and lots of social issues, but I think that most people think that it's somebody else's job to deal with it.

Interviewee 2: Yeah

Interviewee 1: And basically the thing that people are less aware of now is that public services are so cash strapped that actually we're not doing half of the things that we might have been doing in the past. You know our revenue budget has been cut by more than half.

Interviewee 2: Yep

Interviewee 1: So as you can probably tell from what I'm saying, the kind of whole rough sleeping and begging agenda is on... it's kind of top of my mind because we've just concluded a big review about it. But again, you kind of go out there and talk to people on the street and their perception of whether anybody's doing anything about it or why people are rough sleeping etc is completely different from what we're facing as a public sector agency.

(Interview with local authority team members, January 2017)

Interviewee 1 here clearly articulates the mismatch in perception as to who is considered responsible for trying to tackle social issues such as homelessness and rough-sleeping. It would seem that even though the potential is there to crowdsource data on empty houses, by mobilising citizens to send in their observations, and the local authority is keen to use such data, the reality is more complex. It is more complex from the perspective of the citizens participating in generating the data, who are concerned about the ways in which the data might be used. It is also complex in terms of actually putting the data to 'use' from the perspective of the local authority, who state their desire to draw on citizen generated data, but who also acknowledge the challenges of clarifying the roles and responsibilities for tackling certain social issues, such as homelessness and empty houses.

The policy and practitioner interviews, conducted as part of the Empty Houses probe, highlighted yet another different perspective. Rather than focussing on data 'use' per se, the Empty Homes Agency saw data as 'a 'can opener' or basis from which to be able to start asking questions:

Our report suggests that we have a higher proportion of empty houses in the North...but of course there's a difference between those that are long term empty – such as those left empty for over six months, and those that are short term empty for less than that. The official statistics are probably an undercount and it's worth remembering that they don't include properties that have been removed from the Council Tax valuation list because they are derelict and uninhabitable...so in terms of what uses the data can be put to, I'd say the best use is as a 'can opener' or starting point for asking questions about what's really going on here. It can also be a way for people to start asking questions about what's happening in their area.

(Empty Homes Agency interview, August 2016)

Rather than focussing on the 'use' of the data on empty houses per se, the comments above emphasised the ways in which the data could be used as a means to start a

conversation about the current state of affairs, and potentially even as a tool for people to use to question what specifically might be happening locally to them. The comments made by the representative of the Empty Homes Agency link to Walking Interviewee 5's comments about using citizen generated data to hold people in positions of power to account.

In an interview with an empty housing campaigner, who had set up and ran his own charity to try to bring empty houses back into use, he highlighted some of the issues around the politics of data on empty houses:

Council figures are always showing a downwards trend in terms of empty houses. I managed to get an article in the local paper saying to people 'you know your neighbourhood best – tell us where the empties are!

(Interview with empty houses campaigner, February 2017)

This housing campaigner described how he attempted to encourage participants and local residents of an area to submit observations of empty houses since they 'know [their] neighbourhood best'. He alluded to the politics surrounding the 'official figures', which could be perceived to mask the reality of the number of empty houses in a particular area. The same campaigner reflected on the sources of data on empty houses in another area of the UK, in Liverpool, and also on the respective roles and responsibilities for collecting data in this area:

Liverpool is all Labour and everyone's sustaining themselves on the belief that all will be fine and it's all good. But it's not fine at all. Now we've ended up getting the best data from people who give a shit because it's about the money. The city council is quite lazy. Councils have the power to do something about it but aren't keen to use these powers.

(Interview with empty houses campaigner, February 2017)

This interviewee suggested he had received 'the best data' on empty houses that his organisation could use to bring houses back into use, from those incentivised by money – namely property developers who he suggested were interested in buying up empty properties, to refurbish them, and sell them off for profit. The interviewee also questioned the motivations and role of some local authorities to affect the situation, highlighting the political nature of the data and the context.

Another empty housing campaigner reflected on the value of data on empty houses:

It's worth reflecting on what the information about empty houses [is] worth. There are the legal and criminal aspects, with a long history of squatting organisations making FOI requests on empty houses data. There's also for example tracing agents who work for property developers...and then there's also programmes such as Heir Hunting – you know that BBC programme where they can't find the beneficiaries of people's wills so firms go out and try to locate the beneficiaries and take a cut of the inheritance... Whilst the local authority is the main organisation in position and guaranteed to do, or at least be entrusted to do, something of social value. And hopefully the local authority isn't going to be abusing the empty houses information.

(Empty houses network interview, November 2016)

Again, this interviewee drew attention to the politics and power relations at play with data on empty houses, and its usage. In the interview with the local authority, one of the interviewees expanded on this, and framed the issue in a slightly different way:

Interviewee 2: Yeah it's a really important point that... I think as a team we've become more responsive rather than pro-active, because the team's got smaller but our remit's got wider. So we don't focus on empty homes with the five officers; we cover the private rented sector now, and various things. So the empty homes issue has not gone away; it's just been contained. So when you start seeing something reduced, you start thinking well there's another focus for the city council and officers' time...So we tend to focus on...our priorities change over time, so if people aren't being responsive and reporting stuff, it becomes less of a priority and less of an issue.

(Interview with local authority team members, January 2017)

This comment highlighted the ways in which attention to the issue of empty houses comes in and out of focus for the local authority depending on whether or not people report empties as an issue. An analysis of the Empty Houses probe suggests that the usability of the data on empty houses is more as a means to enable a dialogue with those 'responsible' for putting the data to good use, as a form of empowering citizens and holding policy makers to account.

7.4 Utility of Our Manchester Data for the Community

The nature of the different types of data being generated in the Our Manchester project and their potential impact highlights the way in which this type of citizen

social science can have multiple purposes – to tackle isolation both in terms of the data generated, and the process of generating it), to inform service provision and delivery, to contribute to the re-writing of the history of a particular area or community, to challenge stigma and stereotypes, to unpack traditional roles in the research process.

In an interview with Stephen, the community development worker who co-produced the Our Manchester project, in November 2016, he stated that the project is crucial as:

it informs my work and informs what needs to be done to get people access to services. It's a major thing and it has to happen! It's not so much about information though if you get what I mean? It's about so much more than that.

(Interview with Stephen, November 2016)

Stephen expanded on this, stating that:

collecting data without it having impact is a big no no. But people are getting used to the fact that this is happening and so they don't want to do the surveys again or get involved in research. But at the same time there are all these surveillance systems taking people's info without them really realising it. Do you get me? Like Facebook! There's all this politics that's being ignored!

(Interview with Stephen, November 2016)

These reflections about the nature of the different types of data being collected and their potential impact highlights the way in which this type of citizen-led citizen social science can seemingly have multiple purposes. Stephen also drew attention to the importance of making use of the data collected and doing something meaningful for participants:

People are not interested in doing meaningful things for other people, so this is a way to do that for them. It's a broad way around the issue, not tick boxes etc and it ensures that people participate in the project and have some form of ownership over it.

(Interview with Stephen, November 2016)

Stephen emphasised the way in which participants can take part in the Our Manchester project, and potentially feel a sense of ownership over what comes out of the project, over the questions that are asked and the accounts and narratives that are told. This is perceived to be more meaningful than the tick box exercises of other data-

gathering approaches used on the community that Stephen is clearly disillusioned and frustrated with. In another interview with Stephen later that month, he reflected:

data is only collected when they want to do something to you, not for you.
(Interview with Stephen, November 2016)

Who ‘they’ are remained vague in the interview but the comment highlighted the power dynamics at play in the traditional research process, with the perception that data, and the results that ensue from its collection, is *done to* (my emphasis) the community in contrast to the potential for more community co-produced approaches being *done for* or *by* (my emphasis) the community. The probe revealed what ‘data is politics’ means in practice (Durose et al., 2018; Kitchin and Lauriault, 2014; Taylor et al., 2014; Kitchin et al., 2011), and how data *done by* the community is a means of counting and holding others to account, of challenging perceptions of places and areas.

During the community event to discuss the Our Manchester project in November 2016, two of the participants who acted as community reporters, and did much of the filming of the interviews with residents, reflected on how the data generated in the project might be used:

Dan: It’s sound because Stephen’s been giving me all these opportunities to learn and develop my filming skills and so I’ve been able to put these skills into practice with the Our Manchester project.

Jimmy: Stephen doesn’t half have expectations on people though...to take things seriously and grab those opportunities and run with them. But it means you develop high standards in response to those expectations...and now I’m not happy with the state of them interviews I did with him. I want to keep editing them to make sure the quality is top notch so they can be used properly...in the community for like the sharing of experiences and creating links through the centre and that... and also for Stephen’s work in community development.

Dan: Yeah! Even us just going round them people’s houses and chatting for a bit and asking some questions and that...that’s doing something right there!

(Dan and Jimmy, community reporters, community event,
November 2016)

Dan and Jimmy (names changed) suggested that even the act of carrying out the interviews in local residents’ homes to ask them about their experiences of moving to

Moss Side, and how the area has changed, is a form of making use of the data. Adam, another participant, in the Our Manchester project, who had submitted photos and talked me through them during the community event in November 2016 reflected:

I don't care how the photos get 'used' as such. They're my memories, what little things I've got to remind me of the days, and what's been going on since then. I chose to share them with you as you were asking for stuff. And me coming down here and chatting to you and conjuring up all these memories...well that's an experience isn't it? If you can find some use out of all that...then so be it! I'm just happy coming down here and sharing...maybe find out what the others been up to, their views on stuff. I'm not thinking so much about use...

(Adam, participant, community event, November 2016)

Adam questioned how and whether the photos he submitted to the Our Manchester project might be of use. His interest lay in sharing the memories and experiences of living in the local area, rather than in how the data might be used. This raises questions about the nature of data itself, and how issues around data 'use' push at the boundaries of citizen social science in this more participatory form of approach.

The Our Manchester project explored a plurality of accounts, voices and narratives rather than a single voice or history of the area being written and upheld. These local data, little, analogue data constitute forms of urban intelligences (Mattern, 2016) that can reflect and shape the people that generate them, the relationships they help to create, and the places they are about. In this way, the Our Manchester project can be conceived of as a miniature, localised, and non-longitudinal version of Mass Observation, particularly in its approach to generating 'intelligences' (Mattern, 2016) about people and place and social relations.

An affordance of citizen social science is that it can allow for aspects of agency in the research process, whereby participants develop different situated knowledges for contesting the social. The coproduced type of citizen social science probed for in the Our Manchester project, appeared to be a socially committed and engaged approach to doing research. Stephen reflected on this in the Our Manchester probe, when he stated in an interview:

I'm an activist in my own way...you get me? Community work is by its very thing about resistance. You won't get nowhere without standing up to things and getting things done in your own way. 'Cos a lot of the time our interests aren't being taken seriously by the powers that be. So you know, I've got to plug the gaps, and I do, I plug the gaps in my own maverick way.

(Stephen interview, Our Manchester probe, October 2016)

Stephen viewed his role in the project, and in the community more broadly, as a form of activism, and an attempt to 'stand up to things and get things done in your own way'. He highlighted how the project was part of his work to 'plug the gaps' in terms of understanding the needs of the community, but he does so in his 'own maverick way', as required by the situation and context of the community in which he works.

The probe into the Our Manchester project raised many questions around the role of the professional researcher, and traditional social science research methods, in more participatory citizen social science. In many ways the opportunity to share personal truths and reflections, rather than contributing to a more formalised framework of empirical social science was not an issue in the Our Manchester probe. Stephen was not concerned about issues such as data quality or whether or not the project constituted social 'science'. In an interview with Stephen he explained how he conceived of the project:

I think the project would work best if there's a designated space where people could go and get their issues off their chest...you get me? And whether it's confidential or not, the choice is up to them. This was the initial idea behind developing the community centre on [this] street way back when. It's also about timing – people can choose when they want to come and get involved – you get me? That's why this actual physical space is so important, and you know...it's also part of the idea behind having a website etc with a forum or comments section is that people can also log in from their homes and connect or kind of share their stuff that way too.

(Stephen interview, Our Manchester probe, 3rd November 2016)

In developing the Our Manchester project, Stephen intended to create space, both a physical and potentially an online space, where people could communicate and share their stories, accounts and experiences. Links can be drawn here to chapter 5, and the

notion of finding a 'place' for the project, and a 'place' in which people can share their accounts. That this might constitute 'data' that could be 'used' comes secondary.

At another meeting at the community centre a week later, Stephen voiced his frustrations that they should be getting paid to run a project like Our Manchester, rather than the community just getting on and doing it (meeting November 2016). Undertaking the Our Manchester project was considered to be a crucial aspect of Stephen's work as a community development worker to inform his understanding of the needs of the community and issues around access to services. Yet it is not recognised as such, being seen mainly as a self-instigated community engagement activity. This highlights the politics of method, voice and representation.

7.5 Conclusion

As seen in the previous three sections, the citizen social science probes of this thesis provide opportunities but also raise challenges to the notion of using participatory approaches to data generation. The data generated is messy and biased and personal, making the simple plugging of a data gap a far from straightforward possibility. But it is also unique and otherwise uncollected. The nature of the data generated means that it is not necessarily easy to 'use'. Citizen social science can disrupt notions of data collection and data 'use' to solve social problems, opening up space for a knowledge commons of many multiple diverse knowledges, as a form of collection of urban intelligences (Mattern, 2016). Both the Mass Observation probe, and the Our Manchester probe, gathered a plurality of narratives, accounts, documents and artefacts of participants. The Empty Houses project attempted to generate more 'useful' data, but the probe revealed the complexities of using such an approach in the context of homelessness and housing.

As mentioned above, there is an inherent politics associated with the data generated in citizen social science, and thus its usage. Adkins and Lury (2011) suggest that sociology might benefit from a period in which there is an explicit and knowing politicization of measurement and valuation (see chapter 2, section 2.3.2). It is

necessary to acknowledge debates about measurement in the social sciences, particularly in discussions about methods. Ruppert and Savage (2012) draw attention to the ways in which the labour involved in the analysis of such data could be carried out by amateurs as well as professionals, volunteers as well as paid analysts. They hypothesize that the possibility of a new politics of measurement may be linked to the formation of constituencies of informational gatekeepers, organizers and interpreters who may be only loosely, or not at all attached to formal organizations and companies. Arguably such speculations are playing out, and being debated, in the field of digital sociology, which is engendering a re-engagement with fundamental sociological questions and a reconfiguration of knowledge frameworks (Marres, 2017). Furthermore, a politics of measurement is also taking place in citizen science, particularly in the field of Earth Observation, for example, and Citizen Observatories, community-based environmental monitoring and information systems, where earth observation systems are enhanced with citizen-generated observations, and mobile and web technologies.

This chapter has drawn on an analysis of the three probes, and has problematised and discussed the notion of data 'use' in citizen social science. It examined each probe individually to see how the data generated in these three different types of citizen social science is 'used', as well as how participants, practitioners and policy makers envisage using the data in the future. Citizen social science has the potential to disrupt policy and to disrupt 'official' definitions of data quality, calling into question what data is, and for whom. Arguably the ideals and possibilities of citizen social science are not just about the collection of more data for realist analysis, but are focused on the creation of a knowledge commons (Hess and Ostrom, 2007) where all can contribute to a richer, more contested understanding of the everyday, and to different situated knowledges (Rose, 1997; Haraway, 1988).

In a policy context there appears to be much interest in the potential of citizen social science to generate data to be used to inform policy (Richardson, 2013; 2014), and in participants as a future resource, as demonstrated by the traction participatory and citizen science approaches have had in the international development sector. Citizen social science is perceived to be a strategic tool for gathering data in a time of

constrained resources. This raised important questions about whom ultimately citizen social science is for and who benefits from its articulation; it also links to wider debates about the idea of an emancipatory social science. The probes revealed how citizen social science has the potential to disrupt policy and to disrupt 'official' definitions of data quality. In this way, questions of data 'use' in citizen social science are not straightforward.

Chapter 8. The transformative capacities of citizen social science - a discussion

8.1 Introduction

The previous chapter examined how the data produced through a citizen social science approach might be 'used' and by whom; it focused on how different social actors view the potential use of citizen social science data, and explored how such an approach can assist in tackling a pressing social issue, such as homelessness in the case of the Empty Houses probe, and tackling social isolation and access to services in the case of the Our Manchester probe. It built on the elucidation of challenges of citizen social science based methods for research design and execution (see chapter 5); and on the consideration of a relational ethics approach to the ethical issues raised by citizen social science (chapter 6).

This chapter brings together the three key facets of citizen social science to discuss the affordances and capacities that arise, as well as the tensions, and implications. It reflects on the effects of citizen social science, and how it can reconfigure knowledge production processes. Facet methodology uses a gemstone metaphor to examine different 'facets' of a phenomenon (Mason, 2011), so in this instance, the previous three empirical chapters have examined different facets of citizen social science, namely the challenges for research design and execution; ethical issues raised; and lastly how the data generated from citizen social science projects might be 'used', and by whom. Whilst these facets are seemingly disparate, and involve different ways of seeing, using such a methodological approach aims to create a strategically illuminating set of insights (Mason, 2011) into citizen social science as a whole, and contribute to debates about the politics of method.

The discussion is structured in the following way: it begins by establishing the implications of citizen social science for individual participants, and how opportunities for reflection and meaning making can affect the individual. The third section looks at how citizen social science entails challenges and potential for social

science research. The fourth section entails a discussion of the potential of citizen social science to transform our understanding of the social, and thereby society. These considerations of the differentiated implications of citizen social science for the individual, social science research, and wider society, serve to clarify the transformative capacities of citizen social science as a method in practice.

8.2 Implications of citizen social science for the individual participants

Citizen social science is perceived as a mobilising tool to engage mass participation, generating data on a widespread scale (see chapters 2 and 3). However, there is a need to move beyond the assumption that participation must be mass-based. Instead, a range of different practices could be constructed that address people's knowledge, experience and passions to spot problems, design policies, work on drafts or participate in implementation (Noveck, 2016). This necessarily involves acknowledging the distributed expertise of a wide variety of different actors and participants, beyond the confines of academia. It is the knowledge-building aspects of crowdsourcing that are frequently missed out in discussions about its potential (Noveck, 2016). It is these aspects that can enable the location of missing information, the generation of alternate hypotheses, the undertaking of tasks, and more generally focus people's attention on an issue. Methods are performative and participation necessarily affects people and the world being generated through them (Oman, 2017; 2016; Law, 2007). Furthermore, citizen social science appears to be disruptively transformative of the boundary between participation and expertise, rather than between different types of lay and expert perspectives in doing social science.

8.2.1 Opportunities for reflection

The probes revealed the dual affordances of citizen social science to generate opportunities for reflection, as well as the generation of new data. The probes show how participants are 'invited' or engaged in data generation in different ways in the forms of citizen social science probed for. Reflection is an inherent part of the directive responses in the Mass Observation probe that have been analysed, since the

directives were selected on the basis of whether they asked participants about the process of taking part in Mass Observation, and participants' thoughts on that. Reflection is also inherent in the ways in which the walking interviews were conducted in the probe into the Empty Houses project. The probes were designed to allow participants to contribute to the process and to trigger a dialogue and collaboration to 'translate' the meaning of the data generated in the probes (Crabtree et al., 2003). The approaches of the probes encouraged participants to reflect on and articulate important personal, social and technological features of their everyday lives (Crabtree et al., 2003), their 'personal anthropologies' (Sheridan et al., 2000) (see chapter 5, section 5.2.1), and to 'work it out together' (see chapters 6 and 7). The probes necessarily stimulate an acknowledgement of different situated knowledges (Haraway, 1998; Rose, 1997), or more specifically that knowledge is partial. A walking interviewee, from the probe into the Empty Houses project, indicated:

by doing it, it makes you think more about it.

(WI6, December 2016)

This walking interviewee suggested that participating in citizen social science can affect the individual by engendering a greater level of reflection about an issue, and the generation of 'active research subjects' as suggested by a practitioner in chapter 3, and distinctive forms of agency (Savage, 2013). Arguably participation always affects those who take part as they come to terms with what is around them, and even if it does not transform participants into researchers, there is still the potential for new ways of seeing and for new epistemologies to be produced. Another walking interviewee in the Empty Houses probe reflected on this suggesting that such an approach is:

a form of awareness raising rather than a data collection method.

(WI5, December 2016)

In participating in the project, there was a sense from the walking interviews that being tasked to spot empty houses enabled participants to re-engage with their local environment or to see it in a new light, and to generate meaningful knowledge about place. Participation can allow for greater reflection, and a more engaged and potentially critical approach to data generation; but why is this good or important?

Citizen social science can also introduce experiences and personal stances into social science in ways that other methods cannot. Gross (2007, p. 751) suggests that 'whenever new knowledge arises the perceived amount of non-knowledge increases at least proportionally'. This is linked to the notion that 'every state of knowledge opens up even more notions of what is not known' (Krohn, 2001, p. 8141). Thus, it is argued that new knowledge gives a person more possibilities to identify new unknowns, a potentially positive affordance of citizen social science as an approach.

There is a continued confusion and conceptual conflation around reflexivity in social science discourse. Slack (2000) draws attention to the problematic and pervasive nature of reflexivity in sociology, calling for a reflexivity of practical actions. He suggests that sociologists have sought to manage reflexivity as opposed to recognising that it is an essential feature of members' accounts. Lynch (1993, pp. 26-27) however, argues that reflexivity is 'an unavoidable feature of the way actions...are performed, made sense of and incorporated into social settings'. This literature focuses on reflexivity in sociology, rather than necessarily on how to engender reflexivity amongst those who might not consider themselves to be experts. The probes suggest that the particular type of reflexivity engendered is a combination of the performance of social order, as in ethnomethodological accounts, and a matter of critical reflection as discussed above.

If social science expertise involves a certain level of critique, prompting those who would not consider themselves to be experts, to think more about the process, citizen social science opens the research process up to others to reflect on. The question remains of whether citizen social science forges new connections, and horizontalises the analysts. The probes suggest that it depends very much on exactly how 'citizens' are positioned, and how they position themselves. The detail of how the projects are organised matter immensely. This necessarily means citizen social science cannot be a matter of simply tapping into people's everyday activities. Participation in citizen social science has to be a burden rather than a form of 'piggybacking' on people's insights as they go about their daily activities, or the repurposing of people's knowledge in a top down fashion. This burden is transformative, in the way that doing social science makes you see the world

differently. Such methods afford ‘encounters and explorations of our relationship with current and historical authority, while constituting new experiences in the life repertoire of [participants]’ (Crivellaro et al., 2015, p.9). Such explorations enable publics to constitute their own sense of agency (Fowler and Biekart, 2008; Boyte, 2005), and are a ‘step towards the building of collective capacities that are in dialogue with the institutions that can actualize civic will’ (Crivellaro et al., 2015, p.9). Such suggestions link to the reflections of participants in both Mass Observation and the Empty Houses project who considered the difference between the solitary experience of reporting and the collective ‘club’ of Mass Observation, or the notion of reporting for a common purpose (see chapter 5.3).

However, Richardson (2014, p.42) warns that ‘well-intentioned attempts to recognise the value of people’s lived experience and experiential expertise could, perversely, reinforce the exclusion of citizen researchers from professionals.’ This is problematic for citizen social science in the sense that it draws attention to the tensions around notions of expertise. Professional researchers do not simply rely on their own experiences for data. As Richardson (2014, p.42) notes, thoughtful speculation ‘is an analytical skill which has the potential to be transformed into scientific analysis using data’. Furthermore, in Powell’s (2018) ‘data walks’, designed to allow for reflection on the design of smart cities, she highlights how particular discourses of data seemed to frame a ‘calculative’ exercise of citizenship, where ‘people were able to develop their own expertise and perspective in relation to the ways that processes of datafication influence their spaces of everyday engagement (Powell, 2018, p.7). This relates to the challenges citizen social science raises for research design and execution, as presented in chapter 5, particularly in terms of the difficulties for participants to find a place between endogenous social research practices and scientific analysis.

If participants are not involved in critical analysis and other parts of the research process beyond data generation, they will only ever be participants, and not co-researchers. Furthermore, they are often aware of this, in terms of knowing that they are not ‘neutral observers’; they are inherently aware of their own bias. At best citizen social science offers participants an opportunity to reflect upon and shape what data matters to them, what data should be, and how data shapes our lives. At

worst it leads to relativist angst that nothing can truly be known about the social world in which we live.

8.2.2 Indistinct roles and responsibilities

Citizen social science reconfigures roles and responsibilities in the research process, and makes participants more 'aware' of the issues at stake. However, the complexities associated with defining and understanding what constitutes terms such as the public, communities, citizens, non-professionals, lay people must not be overlooked (Richardson, 2014, p. 33). The power to define these concepts, and the roles associated with them are not clearly demarcated or defined. It is also important to note that some individuals will have roles which traverse boundaries, and such roles are not as clearly demarcated as we might be led to believe.

Citizen social science opens up the potential for greater citizen involvement but also blurs the roles between researcher and researched. The experience of participating depends very much on the context of how a project was set up. The politics of co-production have been under-acknowledged, and 'how a set of broader societal inequalities may have negative professional consequences for researchers or participants (risks), or may prevent research from achieving its desired effects of genuinely promoting egalitarian social outcomes (limits)' (Flinders et al., 2016, p. 261). The power dynamics of citizenship are changing but many citizens are aware of this, especially in, for example, the Mass Observation Project, but also in the Empty Houses Project, where participants were concerned about how the data would be used and therefore did not want to report, and to a certain extent the Our Manchester Project, where participants wanted to challenge the narratives told about their neighbourhood. Citizen social science creates new responsibilities for participants and researchers alike. If the notable distinction between expert from non-expert in social science research is critique, the probes show that participants are very much aware of critical perspectives and willing to offer them. However, the way that traditional social science is done, with critical analysis being the preserve of the trained expert, means that many participants do not feel that it is their role to do the analysis.

Citizen social science can rearrange the power dynamics of citizenship; it can also create a burden on the individual participants by risking legitimising the failings of the welfare state. Narratives of 'duty' to take part, and to 'do your bit' necessarily place a greater burden on the individual, and raise questions about the supposed emancipatory potential of participatory methods such as citizen social science. It is crucial to recognise that in many instances of citizen social science based approaches, the power dynamics are not equal; nor are they really trying to be in terms of crowdsourcing approaches. Clarity from the outset, as far as possible, is necessary to mitigate against the blurring of roles in the research process. If citizen social science based approaches can be articulated as operating predominantly at one level of, for example, Haklay's (2013) typology of participation, or indeed with consideration of Arnstein's (1969) ladder of participation, this can help to clarify the particular roles and responsibilities of those involved.

8.3 Implications of citizen social science for social science research

Citizen social science has the potential to constitute reflexive subjects, engaged in knowledge production about social orders in a complex world, as they enact those very orders and worlds. Suchman (2011) suggests that society's everyday practices of ordering and rendering the social world intelligible are an integral part of our subject matter (Garfinkel, 2002). In this way, social science methods are radically *reflexive*. Suchman (2011: p.22) also suggests that 'our own work of making sense of the world relies upon the same basic competencies through which its intelligibility is collectively enacted in the first place'. And so method and theory are not 'the exclusive province of the social scientist'. If this is the case, what are the implications for social science research?

Citizen social science can open up a broader space for contestation of troublesome issues, such as housing, and communities in deprived areas, as demonstrated in Chapter 5 – 7. The approach to citizen social science, as developed in the Our Manchester project, involves a questioning of the norms in wider society and the way in which knowledge is produced. This links to debates on the importance of being able to validate data in citizen science projects, so that participants and researchers

might be able to use the data generated to make a robust case for change. In the Empty Houses probe, it is possible to validate the data with 'official' data on empty houses. However, the question of data validation in Mass Observation, and also in the Our Manchester project is far more complex.

The affordances of citizen social science, in terms of what such an approach allows for, are that it can lead to an opening up of traditional social research processes to include the situated knowledges (Haraway, 1988) of participants. In many ways this returns to the debates raised in the review of the literature in chapter 2, around Palen et al.'s (2011) concept of actionable 'helpful' information and bounded rationalities. However, questions remain around whether bounded rationalities are adequate in a world where complexity rules in risky ways.

Citizen social science has the potential to reframe social science methods with respect for the personal truths as a 'strong complement' to 'orthodox' social science. This is not to say that 'personal truths' are epistemologically 'ground truths', but rather they are valuable situated knowledges (Haraway, 1988) as well as, or additional to, empirical phenomena. It is both a respect for, and a challenge to, traditional social science methods, and questions the monopoly on truth and insight of the expert position. It is therefore about valuing the potential quality of the different situated knowledges produced.

Citizen social science can sit 'alongside' the academy and 'alongside' other disciplines, as a complementary, 'alongside' rather than 'counter-hegemonic' approach to doing social science together (McQuillan). Giddens' (1990, p.15) idea of the 'double hermeneutic' and reflexive role of sociology– as a description of society that iteratively shapes it, suggests that this could be a 'transformative' engagement, not in the sense of a revolutionary transformation of social science and society, but a more gentle, but pervasive 'socialisation' of everything, from everyday life to science and engineering. Socialisation in this context refers to the ways in which everything can be perceived to be socially structured. However, how 'transformative' is a complementary citizen social science that moves 'alongside' existing approaches? Does it change how we do social science together in ways that can transform societies?

By acknowledging provisional knowledges, citizen social science has the opportunity to build a strong complement to orthodox science rather than experiencing its own experiential and reflective aspects as a source of anxiety (McQuillan, 2014).

Richardson (2014) draws attention to the importance of not displacing one form of knowledge and expertise with another, integrating lived experience as a form of data in the method, rather than personal experiences substituting for a method. The affordances of citizen social science are the ways in which such an approach values the everyday, mundane social inquiry, which has the potential to scaffold together as a more 'bottom up' social science'.

As reiterated in the previous empirical chapters, the practical realities of undertaking citizen social science do not always live up to its normative ideals. Adkins (2017, p.117) calls for the adoption of alternative stances towards sociological data, that is, to recordings of social life. She posits that such stances 'might comprise one element of a speculative research agenda'. In this way she positions the Mass Observation materials as 'a set of recordings of events in time which, when placed in proximity with the present, will disclose social change' (Adkins, 2017, p.123). She questions whether this data should simply be understood as recordings of the past, which can be called on to produce then/now narratives and accounts of social change. Are alternative stances towards this data possible? And if so what might such alternatives look like? Citizen social science has the potential to be transformative of social science because, in politics of measurement debates, it highlights the need for an alternative stance towards data that respects personal truths and other eventful temporalities and recordings of social life.

It is useful to bring the discussion back to Winch (1958) here, and his reflections on the 'everydayness' of understanding. It is possible to suggest that citizen social science should perhaps drop the 'science' aspect of its title, as suggested by a walking interviewee above. Winch's line of thinking about the very idea of social science, suggests that there is and can be no elite of independent experts in (the genuine content of) social science. We are all practical experts—as, very roughly, we are all experts in the practical use of the English language (Hutchinson et al., 2008). In this

sense, social study is above all something that we do most of the time, as humans. The social studies, unlike the 'social sciences', not only begin but also end with non-academics, with (competent) members of society. In this sense citizen social science is an acknowledgement that expertise in everyday life is differentiated and spread, rather than a binary scale, and this has great potential for social science. With this insight, social science could be transformed along a spectrum of different directions, from augmenting the evidence base for social science through citizen data collection to mainstreaming and democratising social theory and method. It could introduce citizen perspectives into a social science focused on researching issues and structures, and a collective-scientific search for, and contestation of normative ideas of 'better', alternative forms of social life. These might be more sustainable, equal, and fair forms of social life. In this, citizen social science is unlike participatory action research, which tends to maintain some of these false distinctions of expertise.

What does 'good' and 'better' look like? A plurality of voices and perspectives is necessary in defining what 'better' means and in contesting the social and how it is made. This relates to the probe into the Empty Houses project which was designed to generate citizen data on empty houses, to complement, or potentially contest, the official statistics on empty houses, so as to ask questions about the processes of data generation, with the aim of making the data potentially more 'meaningful' to participants. This argument relates to the critique of the privileged position of the researcher - the researcher is the one that normally always gets to do the 'interesting bit' (the analysis). Some participants reflected on this, stating that they would like to be involved in analysis too, whereas other participants were content to just be involved in data collection, as raised in the probe into the Empty Houses project, particularly through the walking interviews. Ruppert and Savage (2012) endorse a critical engagement in the politics of these new forms of data and analysis, not an internal politics but one that engages with the various communities of analysts and interpreters to provide reflexive accounts of enacting versions of the social world. For example, this may involve engagement in a new politics of measurement that brings into question the assumption that 'popular', anonymous and collective analyses are infallible or transparent. It could also involve analysis of the underlying normativities of 'unbiased' or 'neutral' analyses.

The probe into the Our Manchester project revealed that the more participatory the form of citizen social science, the further away it moves from 'traditional' social science, and the greater the focus on data 'use' in terms of advocacy, relationship building, and articulating the particular needs or requirements of a community. The focus thus moves further away from 'data' as such, and closer to agency and affecting change. Links can be drawn here to the walking interviews in the Empty Houses probe. This also resonates with Mulkay's (1991, p. xix) call for sociology's ultimate task as being not 'as that of reporting neutrally the facts about an objective social world, but as that of *engaging actively* in the world in order to create the possibilities of alternative forms of social life' (my emphasis).

This aim of creating possibilities of alternative forms of social life has a distinctly utopian edge to it. Levitas (2013) begins her analysis of utopia as method by quoting H. G. Wells, who argued that utopias are the proper and distinctive method of sociology. Whilst she acknowledges the different context in which she writes, compared to Wells' in 1906, Levitas (2013, p.xi) suggests that utopia facilitates genuinely holistic thinking about possible futures, combined with reflexivity, provisionality and democratic engagement with the principles and practices of those futures. Furthermore, she argues that 'the reconstitution of society in imagination and in reality is pressing need, given the current challenges facing society (Levitas, 2011, p.xi). We need better methods in social science research, and greater scope to make sense of amount of data being produced. The creation of data appears to be happening at an extremely large scale in commercial research (Thrift, 2011; Savage and Burrows, 2007). The pressing need of the current context is to have methods that build capacity to make sense of and to analyse it. Felt and Wynne (2007, p. 77- 78) argue that 'under appropriate conditions, citizens can thus be participants, critics and knowledge-creators in an extended model of knowledge-production and collective reasoning'.

Citizen social science needs to be conceptualised and framed, in the context of a renewal of interest in the politics of method in the social sciences. The position presented by the work on the 'Social Life of Methods' highlights how questions of

method raise ‘fundamental theoretical questions about the limits of knowledge itself and reflect on ‘new ways of understanding the relationship between the cultural, social, and material’ (Savage, 2013, p.18). Furthermore, such a positioning returns to the ‘crisis of imagination’ that Gane (2012, p.158) reflects on, ‘the fetishisation of readymade quantitative and qualitative methods’ that is more apparent now than it was when Mills wrote *The Sociological Imagination* in the late 1950s. The implications of citizen social science present an opportunity for engaging the collective sociological imagination and opening social science methods up to public involvement is an opportunity for a more committed or socially engaged practice that enables citizens to connect private troubles and public histories.

There are opportunities for social science research in this period of experimentation with measurement and value (Adkins and Lury, 2011). Adkins and Lury (2011, p.11) suggest that there is something to be gained for sociology from a period in which there is ‘an explicit and knowing politicization of measurement and valuation’. This question returns us to the issue of a possible politics or ethics of measurement, and links to why citizen social science is important to consider now, in the current context.

8.4 Implications of citizen social science for society

It has been suggested that citizen social science has the potential to provide a basis for forging a new relationship between the social science academy and society (Housely et al., 2014). There is a sense of the potential of citizen social science as a means for engaging with different audiences in the production of knowledge, beyond instrumental attempts to develop data sets for use by others in more ‘expert’ roles. In relation to citizen science, Couvet and Prevot (2015) discuss the different roles of citizen science depending on the reciprocal relationships between the research community and civil society. They suggest that beyond collecting and interpreting data, citizen science initiatives can also

forge new relationships between volunteers and the natural world and its conservation, and also stimulate social relationships between

citizens, scientists and decision-makers to underpin renewal in biodiversity governance. Such renewal could speak to the need to connect a mode of knowledge where science monopolizes 'the truth' and an alternative mode, where the experiential knowledge in the civil society is mobilized.

Arguably the implications of citizen social science for society have the potential to play out along these lines, particularly since citizen social science values a bottom up social inquiry that acknowledges experiential knowledge, as discussed earlier in this chapter. Furthermore, an increasing involvement of stakeholders can lead to participative inquiry at a bigger scale, hence to participatory action research (Chevalier and Buckles, 2013; Reason, 1994). Citizen social science serves as a potential way to trigger and engender an 'inquiring society'. By abandoning the distinction between "producers" and "consumers" of (social) scientific knowledge, movements such as citizen science and citizen social science attempt to bring about an "inquiring society", where participation in (and scrutiny of) scientific research is open to all (Dennis, 2017). Questions can be raised about the extent to which it is possible to realise such an idealistic vision. How possible it is to design for 'an inquiring society'? Can it be enacted or performed? The probes presented in the empirical work of the thesis suggest that an inquiring society can be designed for, and that the asking of questions, and engaging the sociological imagination, is a potential effect of participating in citizen social science.

Returning to the notion of utopia as method, Buscher (2017) argues that utopia creates rich ground for contestation, as one person's utopia can be another's dystopia, and innovative visions followed through produce unintended consequences. In the current context of the ruins of late capitalism, social scientists have been advocating a turn to 'collective experimentation' (Felt and Wynne, 2007). Citizen social science based methods have the potential to contribute towards a period of collective experimentation and contestation of the social. This necessarily goes beyond notions of creating a knowledge commons (Hess and Ostrom, 2007), which arguably risks remaining stuck in a wisdom of crowds argument. Felt and Wynne (2007, p. 11) observe that the narratives and imaginaries in the science and governance domain

‘urgently need to be subjected to more critical, open reflection, especially in the light of the global economic, scientific and political changes besetting early 21st century Europe’. They argue that ‘it is in the realisation of diversity and multiplicity, and in the robust and distributed character of publics, their capacities and imaginations, that we may justly conceive robust and sustainable pathways’ for the future (Felt and Wynne, 2007, p. 12). The implications of citizen social science-based methods are that they might contribute towards acknowledging the distributed nature of expertise, and allow for a wider range of publics to participate in contesting the social and how it is made.

8.5 Conclusion

This chapter has discussed the three key facets of citizen social science, as explored in the empirical work of the thesis, and attempted to draw out the implications that arose in the process. It has discussed how citizen social science is reconfiguring knowledge production, and the potential effects of this for individuals, social science research, and society. The process of participating in citizen social science and generating data constitutes a form of meaning making and therefore is an epistemology, a politics and an ethics. Citizen social science can allow for opportunities for people to reflect on social life, social orders and social structures. In allowing for such opportunities, citizen social science can challenge the top down approach to data collection and generation, potentially providing more valid research questions and an opportunity for sharing personal truths – or acknowledging different situated knowledges (Haraway, 1998). This has the potential to scaffold towards a more bottom-up social science that values mundane, everyday inquiry.

The discussion set out in this chapter explored how citizen social science adds to the repertoire of methods in the social sciences and does so at a particularly crucial time when so much of the focus has been on bigger, faster data in real time. Citizen social science-based methods can be disruptively transformative: for the individual participant in terms of how citizens can become engaged with the issues raised by the research; for the discipline, in the way that it acknowledges and values differentiated expertise; and, moreover policy makers are beginning to take such data seriously.

Jasanoff (2007) suggested that science fixes our attention on the knowable, leading to an over-dependence on fact-finding and that we need disciplined methods to accommodate the partiality of scientific knowledge and to act under irredeemable uncertainty, what she calls 'technologies of humility'. These technologies compel us to reflect on the sources of ambiguity, indeterminacy and complexity; they also allow us to overlook them (Oman, 2017). There are calls for the supplementation of 'science' with the experiential, with personal truths and modes of knowing that are often pushed aside in expanding scientific understanding and technological capacity (Jasanoff, 2007) and how that is emerging in disaster situations (Büscher et al., 2017). In this way citizen social science allows us to improve our methods so that they might serve us better, by generating and allowing for the asking of important questions about knowledge production, engaging in reflections on the politics of knowledge production. In particular, it prompted the asking of important questions in social science methods around the nature of data, who is allowed to collect it, who can analyse it and how such data can be used. Whilst such questions are exploratory and should be recognised as valuable outcomes in their own right, they should also only be ignored at peril.

Chapter 9. Conclusion

9.1 Introduction

This thesis argues that citizen social science is a valid concept and tool of enquiry which can take multiple forms, but one that ultimately is of greatest value when it operates at small scale. The thesis' key argument is that the value of citizen social science lies more in its developmental power and the new networks of human connection it builds among participants, than in the data it yields for social science inquiry. The thesis tied together theory and in-depth empirical work to argue that citizen social science is a distinctive approach that highlights the politics of method, and has a highly transformative potential impact as it enrolls participants in reflecting on, and recognising different situated knowledges.

The thesis examined citizen social science based methods using three research probes: 1) a secondary analysis of Mass Observation Archive data; 2) a study involving citizens reporting observations of empty houses; and 3) a community based history project about perceptions of a local area. These were selected and designed on the basis of speaking to different levels of Haklay's (2013) typology of participation in citizen science. The research posed the question of how citizen social science works in practice. This had a dual focus. On the one hand it spoke to the fact that citizen social science is an emergent phenomenon and theorizing its practices and potential must first of all take stock of how it is being practiced. On the other hand, citizen social science is emergent in the sense that its potential is being shaped, and theorising it must be done with the ambition of shaping its potential, as well as the ideologies and values that drive innovation in practice.

The thesis also sought to think creatively about method and to explore the effects and potential of citizen social science for social research. It reported on how a conceptualisation of citizen social science, that situates it within social studies of social science, and uses social science theory and methods to examine it, works in

practice. It sought to open up a site for critical reflection on the concept of citizen social science, so as to be able to draw out implications of its future use.

A review of the literature delineated how citizen social science is primarily conceived of as a method to engage volunteer participants in conducting social research. It also examined how citizen social science might be done, drawing parallels between, and distinguishing citizen social science from, existing methods and approaches in social science research, most notably participatory research and co-production. The review likewise questioned who citizen social science might be for, and set out the practical, ethical and material history behind citizen social science.

The key facets chapter charted an outline of the citizen social science landscape, drawing together a body of scoping work to highlight the key facets of such a phenomenon to inform the research strategy of the thesis. The literature review and key facets chapters generated a series of sub-questions that followed on from the core question. They were:

- 1) What challenges are raised in terms of research design and execution?
- 2) What ethical issues are raised and how might these be addressed?
- 3) How can the data generated in citizen social science approaches be ‘used’? By whom?
- 4) How are citizen social science projects reconfiguring knowledge production processes? What are the potential effects of this process?

Using social research probes as method, and facet methodology to analyse the findings from the three divergent probes, the empirical chapters 5 – 7 mapped out the tensions and possibilities of how citizen social science works in practice. These chapters suggested that citizen social science creates new responsibilities for individual citizens, and researchers, and policy makers alike. If citizen social science is to be a useful approach in social science research in the sense of engaging actively in the world in order to create the possibilities of alternative forms of social life (Mulkay, 1991), citizens need to have a more expanded role in social science research, working in collaboration with trained social scientists in all aspects of the

research process, beyond just data generation. Whilst this may pose challenges, it is clear that there are genuine opportunities for the involvement of citizens in the analysis of data, as well as research design, in robust social science research. Recognised forms of social science, from statistical analysis to participant observation, involve serious commitment and engagement in analysis before, during and after doing the research. Why exclude citizens from that form of social science?

Chapter 5 set out the main challenges that were raised in terms of research design and execution from the probes into different types of citizen social science. It presented a false binary in terms of highlighting the challenges for the researcher, and then the ways in which participants expressed their experiences of interpreting the questions in the execution of the projects. The probes drew attention to the relationship between scholarly social science knowledge and endogenous social competence, between reflection and expertise. The probes set off the inevitable hierarchy in the research process that means that roles are complex and responsibilities in the research process are spread, something which probe 3 into the Our Manchester project, in particular, generated new insights on. The practicalities of doing citizen social science raised challenges for research design and execution that make it difficult for citizens to find a place in data, between endogenous social practices and social scientific analysis, and for researchers to design projects that facilitate that process.

Chapter 6 explored the ethical issues raised in the different types of citizen social science probed for, and how might these be addressed. The analysis presented drew attention to the ways in which consent and anonymity become surfaces for complex issues around power relations in the research process. It also highlighted the possibilities that citizen social science can entail in terms of the flattening of hierarchies in the social research process as knowledge is made together. However, this created new tensions in terms of ethics and the reproduction of inequalities, and the conflicting stances of ethical practice. Participants can subscribe to different codes of ethics to academic ethical practice, which drew attention to the politics of knowledge making, and the difficulties of agreeing on the need for, and content of, reasonable practices and sufficient standards for ethical research. A key point that

this chapter served to highlight is that an ethical practice of citizen social science requires on-going dialogue and an adjustment of ethical practices in the process. Furthermore, the more participatory the type of citizen social science being undertaken, the greater the need for relational ethics, and one in which all participants are involved in setting the ethical terms of the project.

Chapter 7 investigated how the data generated in the different types of citizen social science probed for might be ‘used’, and by whom. The analysis focused on how different social actors view the potential use of citizen social science data, and explored how such an approach can assist in tackling a pressing social issue, such as empty houses in the case of the Empty Houses probe, and tackling social isolation and access to services in the case of the Our Manchester probe. In a policy context there appears to be much interest in the potential of citizen social science to generate data to be used to inform policy, and in participants as a future resource, as demonstrated by the traction participatory and citizen science approaches have had in the international development sector (Best, 2015; Holland, 2013). Furthermore, citizen social science can be perceived to be a strategic tool for gathering data in a time of constrained resources. This raised important questions about whom ultimately citizen social science is for, and who benefits from its articulation; it also links to wider debates about the idea of an emancipatory social science. The probes revealed how citizen social science has the potential to disrupt policy and to disrupt ‘official’ definitions of data quality. In this way, questions of data ‘use’ in citizen social science are not straightforward.

The empirical chapters suggested that citizen social science can reconfigure knowledge production processes, by opening them up to social actors operating outside of the confines of the academy. However, the empirical chapters also demonstrated that this does not necessarily entail greater levels of participation, and a hierarchy in the research process remains. Chapter 8 discussed how these affordances and capacities of citizen social science occurred, drawing on the opportunities and challenges of the empirical chapters, and highlighted the potential of this process to reconfigure of knowledge production. It specified the implications of citizen social science-based approaches for individual participants, for

methodological experimentation in social science research, and for society in terms of the potential for reinstating the collective sociological imagination. These discussions are expanded upon in the following sections of this chapter which set out the key contributions of the thesis.

9.2 Citizen social science as an epistemologically distinct approach

The empirical work allowed for a theoretical positioning of citizen social science beyond simply a method for gathering more data. The empirical work sought to explore how citizen social science worked in practice in three different forms. The probes enacted citizen social science as a new form of knowledge production. The empirical work of the thesis described a core set of these projects and identified 'key facets' of citizen social science, that is, the practices, motivations and methodologies that characterise these projects as citizen social science. This is designed to serve three main purposes: firstly, to enable a deeper understanding and contestation of the newly emerging citizen social science movement; secondly, to identify key issues that require further investigation; and thirdly to develop a concept for a citizen social science that produces genuinely new ways of knowing the social world. Citizen social science generates new responsibilities for all involved, and rearranges the power dynamics of the research process. It also demonstrates that however research is undertaken, there is, it seems, always a hierarchy of some form in the research process. This impacts on the truths that are told. The conceptual implications that arise from this tension are important, as expounded in probe 3 into the Our Manchester project, which revealed the implications of gatekeepers on the truths and narratives created. This thesis has sought to shed light on the tension between the neoliberal agenda of citizen social science, and the supposed 'opening up' of the research process that is actually inherently undemocratic.

The thesis also makes conceptual contributions in the ways in which it seeks to acknowledge the differentiated nature of expertise. It is disruptively transformative of the boundary between participation and expertise, rather than between different types of lay and expert perspectives in doing social science. The probes documented in the thesis revealed the complexities and tensions of a move towards creating 'a

nation of amateur social scientists' or surrounding notions of 'citizen sociologists' (see chapter 1). Framing citizen social science in this way aligned it more closely with the ways in which coproduction and Participatory Action Research (PAR) have been theorised. Thus, whilst the work of this thesis locates citizen social science within the wider literature on participatory methods in social science, it also marks citizen social science out as epistemologically distinct from existing approaches such as coproduction and PAR. This is conceptually important since citizen social science is more frequently articulated as stemming from citizen science and the natural sciences.

Citizen social science, similar to coproduction and participatory research methods, appears to occupy an unusual place in relation to the social sciences – in terms of justifying the role of the social sciences, citizen social science is often brought back in as a central defence of the discipline, precisely because of how it reinstates the citizen in the research (and data) process. But citizen social science is marginalised and 'othered' by those who then need to defend the importance and value of social science. Perhaps this is one contributing factor to it not being given much attention in the literature previously; another may be the significant body of work being undertaken on participatory research, in particular PAR and co-production.

The thesis draws together the theorising of citizen science, co-production, PAR and methodological experimentation in social sciences. The literature on PAR suggests it is more of a values-based approach, than a method necessarily. There is a growing body of literature that argues for a wider role for various publics in scientific research as co-producers of knowledge (Durose et al., 2018; Richardson, 2017; Purdam, 2014; Richardson, 2014; Goodson and Phillimore, 2012; Armstrong and Alsop, 2010; Martin, 2010; Nutley et al. 2007). As is often stated in this literature on co-production, it is a risky, time-consuming, ethically complex, emotionally demanding method of social inquiry that challenges many disciplinary norms (Flinders et al., 2016). The social research probes presented as the empirical work in chapters 5-7, and discussed further in chapter 8, support this, as demonstrated in the practical, ethical and material challenges of citizen social science these chapters set out.

Whilst similar to such approaches, citizen social science differs epistemologically, particularly in the way in which it seeks to disrupt the boundary between expertise and participation, and to recognise different situated knowledges, rather than necessarily maintain false distinctions of expertise. The work of the thesis argues that citizen social science is distinct from citizen science and seeks in many ways to argue against citizen social science being submerged in the ever expanding coverage of different approaches and projects, under the same banner of citizen science. Furthermore, the extensive empirical work of thesis demonstrates that a model of citizen social science which simply apes that of citizen science, does not work.

Ultimately there are many divergent and differing forms of citizen social science that can be construed to operate under the same banner, but what unites them is a value-laden approach to including citizens in the process of undertaking social research. Whilst there appears to be much reference to the potential of citizen social science in the literature, there are less critical reflections on its practical realities, due to its emergent and fast evolving nature. Furthermore, it is possible to continue discussing these epistemological differences forever, and particularly as similar debates are playing out in the field of Citizen Science. What is of interest here, and what the thesis sought to do, was to explore how citizen social science works in practice, particularly where people are carrying out such activities without any reference to such semantic distinctions and methodological approaches.

9.3 The transformative and developmental value of citizen social science

The empirical work of the thesis has demonstrated, and subsequently chapter 8 discussed, how citizen social science can bring a transformative momentum, both for the individual participants and for the discipline of social science and for society. The process of participating in citizen social science and generating data can constitute a form of meaning making and therefore is an epistemology, a politics and ethics.

Furthermore, the work of the thesis extends conceptualisations of citizen social science as method, towards opening it up to think creatively about method and to contribute towards forms of collective experimentation, and ways in which to engage the collective sociological imagination. Due to the complex nature of identifying and knowing what an emergent phenomenon like citizen social science is, the scoping work and probes reflected on in the empirical work of the thesis, constitute an experiment in different ways of categorising examples of it, as a way to identify its core challenges, tensions and controversies. The conceptual implications of the thesis are to have drawn on the pre-existing proto citizen social science project of Mass Observation, and to have elucidated the affordances and challenges of such an approach in conjunction with two further potential forms of citizen social science.

Citizen social science-based methods can be disruptively transformative: for the individual participant in terms of how citizens can become engaged with the issues raised by the research. It can be disruptively transformative for social science research in the way that it acknowledges the differentiated nature of expertise, and allows seeming 'non-experts' to be involved in the analysis of data, as well as its generation. Overall, the research highlights how citizen social science can engage with the collective sociological imagination, and presents an opportunity for the transformation of social science research, beyond just an instrumental methodological innovation. In this sense, the methodological and empirical contributions of the thesis are such that they demonstrate that the 'adoption of social research techniques by a variety of social actors...*can* be made to work for rather than against social research" (Marres; 2012, pp.83-4; my emphasis). In many ways, this is a return to the tradition of Mass-Observation and the various field research activities of the mid-twentieth century, all of which emphasised how the public could research themselves through projects of writing and observing. The potential innovations of the approach of the thesis lie precisely in recognising the prior establishment of the Mass Observation project, as an early form of citizen social science, and probing it in novel ways. The subsequent combination of this probe with insights from the probes into two new projects, shed light on the affordances and capacities of citizen social science.

It is this transformative and developmental value of citizen social science that sets it apart from citizen science approaches which often tend to focus on large scale more instrumental applications of the method. whilst it is important to state that a crowdsourcing approach to data collection does not warrant significant criticism, arguably the real value of citizen social science is in its transformative and developmental impact.

Citizen social science produces tensions between notions of inclusion of all social actors in the generation of information about the everyday, and the notion that many of the participants do not necessarily feel entitled, or empowered, to participate in the analysis of this information or in the interpretation of what it means. Many participants were only too aware of the complexities of this part of the research process, as demonstrated in the empirical work presented in chapter 5 (section 5.4). The probes suggest that the particular type of reflexivity engendered is a combination of the performance of social order, as in ethnomethodological accounts, and a matter of critical reflection. Furthermore, if social science expertise involves a certain level of critique, prompting those who would not consider themselves of be experts, to think more about the process, citizen social science opens the research process up to others to reflect on. The question remains of whether citizen social science forges new connections, and horizontalises the analysts. The probes suggest that it depends very much on exactly how 'citizens' are positioned, and how they position themselves. The detail of how the projects are organised matter immensely. This necessarily means citizen social science cannot be a matter of simply tapping into people's everyday activities. Participation in citizen social science has to be a burden rather than a form of 'piggybacking' on people's insights as they go about their daily activities, or the repurposing of people's knowledge in a top down fashion. This burden is transformative, in the way that doing social science makes you see the world differently.

9.4 Citizen social science and the links to ethnographic approaches

The thesis constitutes an initial study to reflexively engage with citizen social science based approaches. It has demonstrated how people can be mobilised to voluntarily contribute to social science research, and that valuable data can be produced through such approaches, which might otherwise not have been. Moreover, policy makers and other social change advocates recognised the value of the data and are beginning to take it seriously. Participants can feel empowered and this has the potential to leave a legacy of engagement.

The thesis has mapped the affordances, capacities and tensions of citizen social science; it has set out both normative ideals of what citizen social science might be, and an empirical exploration of three different types of citizen social science to show how it works in practice. The thesis has highlighted how despite the ideals of citizen social science being about the flattening of hierarchies in social science research, and the opening up of social research techniques to a wide variety of actors, ultimately a hierarchy of some kind remains, and can be reproduced. This impacts on the truths that are told and not told. Whilst it is possible to design for a more shared understanding of the social, and for potential contestations of understandings of the social, this cannot be construed as a democratisation of social science. It is an attempt to open up the research process but it does not necessarily always engender participation.

However, if the value of citizen social science lies in the qualitative insights it can offer into lived human experience, and the acknowledgement and recognition of different situated knowledges, links can also be drawn to social anthropology, and in particular ethnographic approaches and participant observation. There are parallels between the values and aims of citizen social science, and notions of more classical ethnographic approaches that seek to shed light on everyday life. Arguably, citizen social science based approaches allude to notions of ‘good’ ethnography, and to the means to ‘study with people, not to make studies of them’ (Ingold, 2017, p. 23). Ingold (2017) suggests that participant observation should be understood as educational, as a way of learning that can be transformative. ‘Participant observation, in short, is not

a technique of data gathering but an ontological commitment. And that commitment is fundamental to the discipline of anthropology' (Ingold, 2017, p.23). In this sense, observation is a way of participating attentively, and thus a way of learning. Linked to the transformational impact of citizen social science, as discussed above, participating in citizen social science necessarily engenders a level of reflexivity and critical reflection which, in some instances as demonstrated by the first probe into the Mass Observation project, is highly valued by participants.

9.5 The role of citizen social science within social science

Looking ahead, it is possible to reflect on and question the future role of citizen social science within the social sciences. As citizen social science develops, and greater clarity is set out about the challenges and opportunities of its approach in practice, it has the potential to grow in importance and utility. As previously discussed in chapter 8 (section 8. 3) the aim of articulating citizen social science in this way in this thesis is primarily focused on rescuing the primacy of social science methods but not throwing away the existing expertise. The findings from the probes suggest that the practices and processes of citizen social science can be rendered productive for social science research.

Exploring how citizen social science works in practice also allows for a more fertile engagement with questions of description and expertise currently going on in the natural sciences (Savage, 2016). As the thesis has sought to demonstrate, citizen social science can be seen to emerge from both the rise of citizen science, and this data politics of the issues of causality and description, to which Savage refers. Citizen social science needs to be conceptualised and framed, in the context of a renewal of interest in the politics of method in the social sciences (Lury and Wakeford, 2012; Busher et al., 2010; Adkins and Lury, 2009; Rabinow and Marcus, 2009; Burrows and Savage, 2007; Thrift, 2005). This thesis has brought social science methods to bear on the emergent phenomenon of citizen social science to explore its potential for social science research. However as shown in the probes, context is everything, and more

work needs to be done to shed light on how citizen social science works in practice in different contexts, disciplines, and sectors.

It is also important to note that citizen social science can add to the toolkit of methods in social science. Nevertheless, to do citizen social science properly requires significant energy, time and resources, as the empirical work of the thesis has shown. It is far from a quick and easy approach to gathering data on the cheap. The real contribution of such an approach is its transformative impact, and thus for citizen social science to continue to be a meaningful approach for social science, it should resist the urge to increase its 'data yield'. The latter is one of the myriad of directions in which citizen science appears to be going.

As discussed in chapter 8, (section 8. 4) citizen social science provides the potential for forge new relations between the academy and society. It values bottom up social inquiry that acknowledges experiential knowledge. Citizen social science also constitutes a way in which to trigger an 'inquiring society'. In this sense it has the potential to impact on the development of a civil society as form of social capital. Furthermore, there is much scope for citizen social science in a policy environment, and particularly one which is focused on the impact agenda, as a tool in a post-austerity context of constrained resources. The affordances of citizen social science here appear to be the way in which such an approach values the everyday, mundane social inquiry, which has the potential to scaffold it to come together as a 'bottom up' social science.

Citizen social science has the most beneficial implications for social science research, since it is possible to argue that our methods are not fully cut out to deal with the level of complexity and volume of problems currently facing society. Collective action and experimentation is needed to try to tackle such far-reaching issues together. Citizen social science offers a potential way in which to engage collective and faster knowledge production. We need better methods in social science research, and greater scope to make sense of amount of data being produced. The creation of data appears to be happening at an extremely large scale in commercial research (Thrift, 2011; Savage and Burrows, 2007). The pressing need of the current context is to have

methods that build capacity to make sense of and to analyse it. Felt and Wynne (2007, p. 77- 78) argue that ‘under appropriate conditions, citizens can thus be participants, critics and knowledge-creators in an extended model of knowledge-production and collective reasoning’. In this sense, citizen social science has the potential to play a crucial role in social science in terms of transforming social science methods for the better.

Citizen social science has the potential to be transformative of social science because, in politics of measurement debates, it highlights the need for an alternative stance towards data that respects personal truths and other eventful temporalities and recordings of social life. Participation in the research process offers new perspectives and insights and ways of understanding and contesting the social and for researching intractable social research questions, but it is not without its challenges and limitations. Multiple questions can be raised around the complexities of data quality, and analysis, as well as expertise in citizen social science.

Citizen social science needs to be conceptualised and framed, in the context of a renewal of interest in the politics of method in the social sciences. The position presented by the work on the ‘Social Life of Methods’ highlights how questions of method raise ‘fundamental theoretical questions about the limits of knowledge itself and reflect on ‘new ways of understanding the relationship between the cultural, social, and material’ (Savage, 2013, p.18). Furthermore, such a positioning returns to the ‘crisis of imagination’ that Gane (2012, p.158) reflects on, ‘the fetishisation of readymade quantitative and qualitative methods’ that is more apparent now than it was when Mills wrote *The Sociological Imagination* in the late 1950s. The implications of citizen social science present an opportunity for engaging the collective sociological imagination and opening social science methods up to public involvement is an opportunity for a more committed or socially engaged practice that enables citizens to connect private troubles and public histories.

Citizen social science allows us to improve our methods so that they might serve us better, by generating and allowing for the asking of important questions about knowledge production, engaging in reflections on the politics of knowledge

production. In particular, it prompted the asking of important questions in social science methods around the nature of data, who is allowed to collect it, who can analyse it and how such data can be used. Whilst such questions are exploratory and should be recognised as valuable outcomes in their own right, they should also only be ignored at peril.

9.6 Limitations of the thesis and its approach

The thesis started by presenting the argument that citizen social science is a fast evolving, multi-sited, socially-structured phenomenon. Therefore, any attempts to conceptualise it and study it empirically will necessarily be limited. There is also a case to be made that now much of the action is in the digital sphere in which human interventions, in the form of visits, writing letters, data assemblage, campaigning, and blogs operate. However, it is necessary to delineate the key facets of a kind of classic citizen social science, as set out in the empirical work of this thesis, before moving on to examine the more recent developments in the nature of social science. This is particularly true given the emergent nature of citizen social science in the literature. As Savage (2010) argued in his work on *Identities and Social Change*, the rise of popular social science between the 30s and 50s was part of the development of a technocratic middle class identity, and appealed to generally well embracing a kind of Fabian, leftist, political vision – see also Mulgan’s comments quoted at the very beginning of the thesis. The kind of citizen social science presented here harks back to older traditions, such as those associated with Booth and Rowntree and the Sociological Society.

In the spirit of ‘opening up’ a method, the main methodological contribution of this thesis lies in how it attempted to use a citizen social science-based approach to study citizen social science itself in practice. This produced many critical progressive insights, whilst attempting to refuse any endeavours to essentialise or pigeonhole it. The key facets of citizen social science, probed for and set out in the empirical chapters of the thesis, provide an initial elucidation of the opportunities and challenges of citizen social science based approaches, in terms of research design,

ethics and data ‘use’. The methodological contribution of the thesis is in its having set out an articulation of citizen social science to add to the repertoires of methods that can permit social scientists to seize the future with some confidence, by including a wide variety of social actors, and their differentiated expertise, in the social research process.

Owing to the emergent nature of citizen social science, some experimentation was necessary. The probes allowed for insights into particular projects, and facet methodology enables for the drawing across of such insights, to generate a strategically illuminating set of reflections. However, a more systematic approach to understanding the motivations and experiences of participants in citizen social science might be a fruitful avenue for future research, and this is all the more pressing an issue for future inquiry, as new generations of researchers adopt these methods.

The use of facet methodology to create a strategically illuminating set of insights into citizen social science has its advantages and disadvantages. Facet methodology (Mason, 2011) is an orientation, and was used to treat citizen social science as the gemstone, whose facets were explored in more depth using a series of three social research probes. Mason (2011) described ‘facet methodology’ in a clear fashion using a ‘gemstone’ metaphor that marks out the theoretical basis for its use. However, there is no roadmap or blueprint for undertaking a facet methodology research, which shows how a researcher could overcome some of the practical challenges of its use.

The social research probes, presented in the empirical chapters 5-7, enabled the study of citizen social science as a method. They were designed to speak to different levels of Haklay’s (2013) typology of citizen science, which draws on Arnstein’s (1969) ladder of participation. Arguably much of the focus of their work is material, and in this sense, the thesis has been an attempt to understand how people make knowledge about the social. With the use of the probes come some limitations, however, particularly since a probe can be used as a form of objective tool, but not in a traditional or necessarily conventional way. Their use aimed for some objectivity, whilst acknowledging that the subjectivity of the researcher, which does impact on the research site.

In researching citizen social science, I have also become an active shaper of it. In this sense, the thesis is not an entirely objective work. Chapter 4 argued that citizen social science is an emergent phenomenon that is not easily demarcated and bounded, and thus requires a more creative methodological approach. However, the probes were small-scale, and limited in scope and sample size. Furthermore, much like the stated limitations of facet methodology, there are minimal recommendations for how to analyse and make sense of the data produced in cultural and social research probes, since much of the focus is on the process itself.

9.7 Conclusion

In conclusion, the thesis has examined the possibilities of citizen social science based methods, and revealed how citizen social science exceeded the dominant view of it as a new means of creating data. Rather, citizen social science enables the detailed examination of participation. It considered how the data produced in such an approach is an epistemology, and a politics, not just a method or realist tool for analysis. The thesis concludes that citizen social science has greater potential as a transformative practice that emphasises the collective sociological imagination, than as its current default as an instrumental methodological innovation for collecting yet more social data. As noted in the contribution to knowledge, participation in the research process offers new perspectives and ways of understanding and contesting the social, as well as for researching intractable social research questions, but it is not without its challenges and limitations.

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Appendices

Appendix 1: Potential citizen social science projects reviewed

Projects

No.	Name	Description	How and when instigated	Data collected	Type of CSS
1.	Datashift http://civicus.org/thedatashift	DataShift is an initiative that builds the capacity and confidence of civil society organisations to produce and use citizen-generated data to monitor sustainable development progress, demand accountability and campaign for transformative change. DataShift is a global movement to empower a broad, multi-stakeholder platform for sharing skills, strategies and technologies to identify and document existing citizen reporting mechanisms, data gaps and perceived needs. Sustained support and development of these mechanisms encourages responsiveness to local contexts, facilitates sharing and uptake between groups, and builds a scalable methodology for mobilising citizen monitoring resources.	DataShift is an initiative of Civicus, the World Alliance for Citizen Participation, in partnership with Wingu and Open Institute. Between 2014-2016, The Engine Room worked with Civicus to scope, design, organise and launch DataShift. The Engine Room managed the initial phase of the initiative's direct support work in pilot countries in partnership with Wingu and other organisations, commissioned research into opportunities and challenges for citizen-generated data use, and provided overall strategic input.	Citizen generated data – so data that people or their organisations produce to directly monitor, demand or drive change on issues that affect them. The data is actively given by citizens, providing representations of their perspectives, and an alternative to datasets collected by governments or international institutions.	Citizen generated data
2.	Tenison Road http://tenisonr	The project was intended to illustrate how data can be thought about in deeper and more	The Tension Road project is a project initiated by members of the Human Experience & Design group working	An enormous amount of different data types were collected during the project,	Citizen generated data

No.	Name	Description	How and when instigated	Data collected	Type of CSS
	oad.com	meaningful ways. It aims to show how data might come to matter in real-world places and how it might be put to use. At all levels, the project is intended to be a common exercise in collectively working through the things that are important to a street, and discovering new ways to participate and engage in social life.	at Microsoft Research. The project was launched in October 2013 and ran for two years. The project was designed by Microsoft research. However, the intention was for it to be a community run project with the aim of exploring what data means to real people living and working on streets such as Tenison Road.	from air quality readings, to votes and ballots, to wildlife and plant surveys, to other forms of visually representative data. The different types of data were collected in a data log which is documented on the project website.	
3.	Safecast https://blog.safecast.org	Safecast is a global volunteer-centered citizen science project working to empower people with data about their environments. Safecast monitors, collects, and openly shares information on environmental radiation and other pollutants. Safecast embraces open-source and open-data methodologies, along with new fabrication technologies, such as 3D printing, laser-cutters, and on-demand fabrication of components. They promote rapid, agile, and iterative development, and benefit from having a technically skilled pool of collaborators around the globe.	Safecast was formed in response to the devastating earthquake and tsunami which struck eastern Japan on March 11, 2011, and the subsequent meltdown of the Fukushima Daiichi Nuclear Power Plant. Safecast was established by Sean Bonner (Los Angeles), Joi Ito (Boston/Dubai/Tokyo) and Pieter Franken (Tokyo), with a successfully overfunded kickstarter campaign and a few private donations to help fund equipment.	Safecast collects radiation and other environmental data from all over the world. Data is collected primarily via the Safecast sensor network. Measurements are taken free of charge. Each data contributor is free to measure areas they consider worthwhile. Safecast data is published under a CC0 designation, a public domain designation and means the data is free and open for anyone to use under any circumstance.	Citizen generated data
4.	Shack/ Slum Dwellers International (SDI)	The SDI is a network of community-based organizations of the urban poor in 33 countries in Africa, Asia and Latin America. In each country	In 1996, federations of the urban poor and their support NGOs gathered in South Africa. These federations had been working in urban informal	Enumerations, settlement profiles and mapping. Informal settlements in cities and towns in over 30	Citizen generated data

No.	Name	Description	How and when instigated	Data collected	Type of CSS
	http://sdinet.org	where federations operate, they mobilise around core SDI practices and principles to build voice and collective capacity in urban poor communities. This is known as our Know Your Community work. Organised federations throughout the SDI network profile, map, and enumerate their settlements to gather invaluable planning data and catalyse community action and partnerships. This is known as Know Your City work. The KYC website combines hard data and rich stories from urban poor communities in 224 cities across the Global South. Federations use their data and collective capacity to co-produce solutions for slum upgrading. These projects make up the third category of work - Improve Your City - and are supported by SDI's Urban Poor Fund International.	settlements – defending communities against evictions and working to gain access to basic amenities – for what ranged from few years to over a decade. In some cases, federations had begun to take on a more proactive role, entering into negotiations with local and national governments to address these critical issues. During this meeting in 1996 it was agreed that an international network would be created, Slum / Shack Dwellers International (SDI), with representation from urban poor federations from countries across Asia, Africa and Latin America.	countries collect and analyse data about their settlements to influence resource flows and development priorities, to mitigate against disaster and conflict and to make poor communities vocal and visible. When these settlements federate at the city, national and global level this data has incredible value for bottom-up policy formulation and developmental agenda setting.	
5.	Fix My Street https://www.fixmystreet.com	FixMyStreet is an independent website, built by the charity My Society to make it easier to report problems in the community. FixMyStreet send reported issue to the people whose job it is to fix it. FixMyStreet covers the whole of the UK. Councils read or act on FixMyStreet reports. Councils have	The project was initiated by My Society in 2007. My Society is a not-for-profit social enterprise, based in the UK and working internationally. My Society Limited is a project of UK Citizens Online Democracy, a registered charity in England and Wales. The site was initially funded by the Department for Constitutional	More than 25,000 problems have been reported in the UK since its launch in February 2007. My Society believes that strong democratic accountability and a thriving civil society are vital to common welfare, and that these cannot survive	Citizen generated data

No.	Name	Description	How and when instigated	Data collected	Type of CSS
		the option to integrate directly, so report details can be directly placed into their systems, saving them time and money.	Affairs Innovations Fund and built by My Society, in conjunction with the Young Foundation.	where people do not engage with government and communities.	
6.	Mass Observation Project http://www.massobs.org.uk	The project is compiled of two parts: 1) called the Mass Observation Movement from 1937-1950s; and 2) The Mass Observation Project, 1981-ongoing. In it's current format the aim is to encourage a national writing panel. Since it began, almost 4,500 people have volunteered to write for the Project. Many of these writers have been corresponding over several years, making the Project rich in qualitative longitudinal material.	The Archive results from the work of the social research organisation, Mass Observation. This organisation was founded in 1937 by a group of people, who aimed to create an 'anthropology of ourselves'. They recruited a team of observers and a panel of volunteer writers to study the everyday lives of ordinary people in Britain. This original work continued until the early 1950s. The original Mass Observation idea of a national panel was revived from the Archive in 1981. Through the press, television and radio, new volunteer writers or 'Mass Observation correspondents' were recruited from all over Britain. The Mass Observation Project also collects material about everyday life through the 12th May Diary Project and other projects and partnerships.	There are currently around 450 volunteer participants on the Mass Observation writing Panel. These writers (often known as "Observers") respond to "Directives", or open-ended questionnaire, sent to them by post or email three times a year. The Directives contain two or three broad themes which cover both very personal issues and wider political and social issues and events. The Project solicits in-depth accounts (both opinion and experience) of everyday life: stories, memoirs, lists, letters, diagrams, drawings, maps, diaries, photographs, press cuttings, confessions, reports on people, places and events, across a wide variety of topics.	Citizen generated archive
7.	The Bristol Approach	The Bristol Approach is people-led and issue-led. It provides a set of tools and a way of working that helps different groups – from councils and	Working with innovation company Ideas for Change and Bristol City Council, KWMC crafted The Bristol Approach based on the latest 'smart	The approach operates using a range of sensors – usually a mix of new and old technology – and meshing it	Citizen generated data

No.	Name	Description	How and when instigated	Data collected	Type of CSS
	http://www.bristolapproach.org	businesses, to schools and community organisations – to tackle the pressing issues in their community. The Bristol Approach believes that all people, whatever their background, should be able to imagine, design and build the future they want to see – for themselves and their city.	cities' research and insights from a 20-year history of supporting people to shape their communities.	with the wider resources and knowhow that already exists in that community. The Bristol Approach Framework works in 5 key ways: engaging people in creative ways; working with people to co-design solutions; collaborating with people of different disciplines and backgrounds; supporting people to develop skills using storytelling to make sense of data.	
8.	&wider http://www.andwider.com	&wider have simple cost effective diagnostic tools which use workers' mobile phones to track and encourage improvement in labour practices along the supply chain. These tools offer real time results and can also be used to support particular suppliers, and offer an early warning system when used across the supply base. &wider are not a tool development company, but a company focused on using whatever tools work to make participation effortless and easy for workers themselves. The tools are collaboratively designed and tried and tested by workers, to make worker participation easier.	Lea Esterhuizen founded &Wider in 2014 to help bridge the significant data gap on working conditions in global supply chains.	&wider have a series of tools to further their work: ENGAGE gives workers a channel, or rating tool, to report working conditions, suppliers clarity on their workers' lives, and retailers supply chain transparency. ENHANCE values workers' input into what should happen next, on how work and productivity could change for the better. It generates concrete suggestions from workers for employers. It uses a short mobile survey, where workers report on which	Citizen generated data

No.	Name	Description	How and when instigated	Data collected	Type of CSS
				small adjustments can be made that will immediately improve productivity. Suppliers then get a snapshot of their workers' priorities for a more productive workplace. ENABLE offers a complete listening loop across the entire workforce, 24/7. This helps suppliers to consider suggestions and priorities from workers, and develop a series of possible changes or improvements. These can then be taken back to the workforce.	
9.	Focus E15 https://focuse15.org	Between September 2015 and April 2016, a participatory action research project was undertaken in the London Borough of Newham, examining the experiences of those facing potential or actual homelessness. The findings from the participatory action research reflect extremely high levels of hidden homelessness; serious physical and mental health issues arising or being exacerbated as a result of insecure housing, and an apparently systemic attempt to remove vulnerable people from the borough.	The Focus E15 campaign was born in September 2013 when a group of young mothers were served eviction notices by East Thames Housing Association after Newham Council cut its funding to the Focus E15 hostel for young homeless people. Dr Kate Hardy, University of Leeds, and Dr Tom Gillespie, University of Sheffield, instigated the participatory action research aspect of the campaign.	A structured interview tool, using questions designed to elicit both quantitative and qualitative data, offering the opportunity to provide more narrative information, was designed in collaboration between housing campaigners who are at the forefront of hearing stories of homelessness in Newham (Focus E15) and the authors. 64 structured interviews were undertaken with participants who approached Newham Council to address a	Participatory Action Research

No.	Name	Description	How and when instigated	Data collected	Type of CSS
				housing or homelessness need within the last year.	
10.	Hush City App http://www.opensourcesoundscapes.org/hush-city/	By using Hush City app participants can be as active members of a soundscape and citizen science research project to map and evaluate urban quiet areas so as to contribute to protecting them. The Hush City app aims to crowdsource quiet spots and share of them with the Hush City community.	Dr Antonella Radicchi ran the project as a non-profit project. The first version of the Hush City app was developed in the framework of the “Beyond the Noise: Open Source Soundscapes” project (2016-2018), which validated a novel mixed methodology to identify, assess and plan “everyday quiet areas” in cities, by implementing the soundscape approach, the citizen science paradigm and open source technology. The second version of the Hush City app was developed in the framework of the project: “Hush City Mobile Lab” (2018-2020).	Participants identify and access quiet areas in their city or in other cities worldwide, shared by the Hush City users. They can filter the quiet areas according to their sound levels, descriptors used to tag them, perceived quietness, visual quality and accessibility, as perceived by the users who crowdsourced the quiet areas; and engage in gaming activities. They can also review their personal surveys and delete them if they are no longer happy with them. They can also provide feedback on the Hush City project.	Crowdsourcing
11.	Citizen Heritage http://linkis.com/citizenheritage.com/kbfbZ	The project investigates how digital technologies enable citizens of local areas to document and share memories and records of their collective past. In parallel, we are studying other digital tools for citizen engagement developed by GLAM institutions (Galleries, Libraries, Archives and	The project is supported by the Australian Research Council (Discovery Project: DP140101188) and aims to advance heritage theory and practice, with new understanding of the production and application of innovative digital technologies. It was set up by researchers at the University of Melbourne	The main focus is on the development and study of PastPort (currently undergoing early testing), a mobile webapp for residents and visitors of Port Melbourne in inner Melbourne (City of Port Phillip), an area of rich and	Citizen generated online archive

No.	Name	Description	How and when instigated	Data collected	Type of CSS
		Museums), heritage bodies and local government custodians. The project explores how such digital experiences can be made more readily accessible to people and how they enrich the lived experience of local places, creating an ongoing relationship between past and present.		disparate urban history.	
12.	Hollaback http://www.ihollaback.org/	The aim of the project is to work together to better understand street harassment, to ignite public conversations, and to develop innovative strategies to ensure equal access to public spaces. The project believes that what specifically counts as street harassment is determined by those who experience it.	Hollaback is a network of local activists around the world. A non-profit movement to end street harassment powered by local activists in 92 cities and 32 countries.	Use of a smartphone to document, map, and share incidents of street harassment. Users are encouraged to speak up when they see harassment by quickly documenting it in a short post (photo optional) and sharing it to a publicly viewable map.	Citizen generated project for citizens
13.	Election leaflets https://electionleaflets.org	The project is an online archive of political leaflets. Their belief is that There are loads of stories hidden in election leaflets, and the project can help find them.	The project started in April 2009 and was originally "The Straight Choice", derived from a leaflet in the controversial by-election in Bermondsey in 1983 which has become the type specimen of accusations of dodgy campaigning. The site was renamed "ElectionLeaflets.org" in August 2010. Election Leaflets is run by a group of volunteers. It is currently being supported by Unlock Democracy, the campaign for democracy, rights and	During the 2010 election there were over 6,000 leaflets added to the archive providing a valuable resource for journalists, campaigners and investigations. Members of the public photograph and classify election leaflets. They photograph what comes through their doors at election time. The ElectionLeaflets.org analysis	Citizen generated online archive

No.	Name	Description	How and when instigated	Data collected	Type of CSS
			freedoms and Democracy Club. Election Leaflets, Unlock Democracy and Democracy Club are independent and not affiliated to any political party.	team check and tidy categorising election leaflets as they come in.	
14.	Moodnotes http://moodnotes.thriveport.com	Moodnotes is an app intended to help journal and capture your mood and improve your thinking habits. Moodnotes aims to empower participants to track their mood over time, to avoid common thinking traps, and to develop perspectives associated with increased happiness and well-being. Moodnotes is grounded in the scientifically-supported content of cognitive behaviour therapy (CBT) and positive psychology.	Moodnotes is collaborative effort between Thriveport's clinical psychologist founders (creators of MoodKit) and ustwo studio (creators of the award-winning game Monument Valley).	Moodnotes encourages users to track their mood and try to identify what influences it.	Citizen generated project for citizens
15.	Pride of Place LGBTQ Heritage project https://historicengland.org.uk/research/inclusive-heritage/lgbtq-heritage-project/	A project to explore and celebrate the relationship between lesbian, gay, bisexual, transgender and queer (LGBTQ) history and the country's historic buildings and spaces. The researchers work with community groups, LGBTQ advisory groups and the general public, using crowd-sourcing as a technique for people across England to name important 'queer' buildings and places. Pride of Place recognises that LGBTQ heritage needs to be identified, recorded, understood, cared-for, and	Pride of Place is a Historic England initiative led by a team of historians and scholars at Leeds Beckett University's Centre for Culture and the Arts.	Images, archive materials and stories that focus on the range of places and spaces lived, loved, worked and played in by LGBTQ people through the centuries.	Citizen generated archive

No.	Name	Description	How and when instigated	Data collected	Type of CSS
		celebrated, as part of our national identity.			
16.	No Second Night Out (NSNO) http://www.no-secondnightout.org.uk/	<p>The No Second Night Out project aims to dramatically increase the proportion of new rough sleepers who are prevented from spending a second night out on London's streets. When people are helped off the streets by outreach teams and into the assessment hub, after a comprehensive assessment an offer is made so that they do not need to return to rough sleeping. The options considered are wide-ranging and researched thoroughly. This often includes helping the person return to their home area; whether this is within London, the rest of the UK, or abroad because most often this is where someone will be eligible to access services immediately. The team based at the hub provide new rough sleepers with assistance to access support and accommodation in their home areas, advocating with housing providers in those areas and providing the practical support for people to return closer to home where it is safe to do so. This is in line with existing London and national protocols and guidance for reconnection</p>	<p>The Mayor of London has committed to end rough sleeping in London. To deliver this commitment he established the London Delivery Board (LDB) – a partnership body chaired by the Mayor's Housing Advisor that brings together central London boroughs, government departments, the voluntary sector and key stakeholders. The outcome the LDB is seeking to deliver is that no one will live on the streets of London and no individual arriving on the streets will sleep out for a second night.</p>	<p>A rough sleeping referral phoneline has been set up to encourage and enable the public to make referrals of rough sleepers. The aim of the phoneline is as a tool to engage the public to be the eyes and ears on the street, thereby increasing the chances of getting to new rough sleepers as quickly as possible.</p>	Crowdsourcing

No.	Name	Description	How and when instigated	Data collected	Type of CSS
17.	Crowd Sourcing on Mental Health https://www.rendensiemit.org/home-en.html	The initiative Tell us! involves citizens in the research of mental illnesses. This approach not only focuses on symptoms, but also offers people the opportunity to outline the development of anxiety in context with their individual lives. Through the platform, people could share their open questions and problems for a period of two months (16 April 2015 until 16 June 2015).	The Austrian Ludwig Boltzmann Society launched the first crowdsourcing project on mental health in Europe on 16 April 2015 to ensure that what is researched matches the needs of society.	The project collected subjective data that contributes to the improvement of available treatment programmes. The Tell us project also asks participant what questions about mental health does research need to answer?	Crowdsourcing
18.	Everyday Sexism project http://www.everydaysexism.com/	The Everyday Sexism Project exists to catalogue instances of sexism experienced by women on a day to day basis. The Everyday Sexism project aims to take a step towards gender equality, by proving wrong those who tell women that they can't complain because we are equal. It is a place to record stories of sexism faced on a daily basis, by ordinary women, in ordinary places.	Laura Bates founded the Everyday Sexism Project. She writes for the Guardian women's blog each week about women's experiences of sexism.	Stories, accounts, anecdotes and any other information about people's experiences of everyday sexism. Tweets & online accounts of instances of everyday sexism. People can submit their stories anonymously online or tweet at the @everydaysexism.	Citizen generated project for citizens
19.	Harkive	Harkive is an annual, online music research project that gathers stories from people around the world about how, where and why they listened to music on a single day. Since launching in 2013, the project has gathered over 10,000 stories. The intention is that these stories help contribute to the furtherance of knowledge and study of popular	Craig Hamilton, a research fellow at Birmingham City University, founded the project in 2013.	Harkive is interested in the How, Why and Where. The project seeks to hear about participants' listening experience, which is much more than a list of songs. The project is equally interested in the devices, technology, services and formats used, as the places, locations,	Citizen generated online archive

No.	Name	Description	How and when instigated	Data collected	Type of CSS
		music culture.		journeys and situations participants find themselves in whilst listening.	
20.	Rave Preservation Project http://www.ravepreservationproject.com/#top	The project aims to preserve original Underground, Rave, Club, Disco, and any other underground memorabilia. As the years go by, old rave flyers and rave posters are lost, damaged, thrown away, and recycled. This project is to ensure rave flyers and rave posters are curated and stored in a healthy environment.	Matthew Johnson started The Rave Preservation Project in 2013. Johnson has amassed a collection of over 40,000 pieces of rave memorabilia from the mid-'80s, '90s and early 2000s. Including duplicates, there are over 250,000 pieces stored in the archive.	Flyers are donated to the project. They are then categorised by location, and sorted alphabetically by the project. Once rave flyers, rave posters, and other memorabilia is in the care of the Rave Preservation Project they are sorted alphabetically, by event. Then an envelope with the event information is created for safe storage and archiving. Each envelope is organized by; Event, Country, State or Province, then City or Town. The envelopes are then added to storage containers, and stored safely. The memorabilia is also digitised, and once scanned all is shared with the world on the project website.	Citizen generated online archive
21.	Underfall Boatyard Sharing Memories project	With support from the Oral History Society, the project involved training 10 volunteers to interview and record memories of Underfall Yard. The recordings are shared in the visitor centre and through Vimeo.	The oral history project developed as part of the heritage lottery fund bid to restore the Underfall Yard. The Underfall Boat Yard is owned and managed by the Underfall Yard Trust.	The data aimed to gather memories and stories about the Underfall Yard through Oral History interviews in order to record the history of the site. It aimed to produce	Citizen generated online archive

No.	Name	Description	How and when instigated	Data collected	Type of CSS
	http://www.underfallyard.co.uk/about/projects/			content for the new visitor centre and interpretation of the site (listening posts, web content, themed tours).	
22.	Hackney Wick Community Map http://mappingforchange.org.uk/projects/hackney-wick-community-map/	Mapping for Change ran a series of workshops, focused group meetings and field days to work with the community and develop an on-line community map. Attendees included schools, senior citizens, local organisations and other residents. The community were able to use the map as a tool for communication with the various stakeholders involved in development and regeneration programmes, local service providers and the community as a whole. The map enabled all community members to be informed, have their say and get involved. The community were able to use the information as a tool for negotiation within the 2012 legacy framework in a bid to ensure focal elements were not forgotten, but instead were integrated into new developments.	Mapping for Change instigated the project with the Hackney Wick community in 2012. Mapping for Change works to provide benefit to individuals and communities from disadvantaged or marginalised groups, along with the organisations and networks that support those communities, where the goal is to create positive sustainable transformations in their environment. They also support individuals from the aforementioned groups to gain access to higher education at UCL, to study fields connected with their work.	Participants were asked to map create maps in collaboration with the community, and to share information about the places that matter to them. The maps can be used to share views on planned developments; document local history; identify nearby events and activities; and contribute information about an environmental issue.	Participatory Mapping
23.	Mapfugees https://mapfugees.wordpress.com	In collaboration with refugees the project created detailed, multi-lingual maps of the refugee camps in Grande-Synthe and Calais to improve the delivery of aid and services and	The project started in December 2015 to collaboratively produce maps of refugee camps.	All the content of the maps was collected and edited in collaboration with the residents of the camp. There was no publicly accessible	Participatory Mapping

No.	Name	Description	How and when instigated	Data collected	Type of CSS
	com/mapfugees/	the safety and comfort of the residents. The project's goal is to empower refugees and humanitarian helpers to help turn the camps into better, more safe and comfortable places.		repository of information on the semi-permanent yet continuously changing home for thousands of people. The existing maps from NGOs and public facilities are customized for specific purposes which did not necessarily align with the perception and needs of the camp residents. These needs include street names, signposting and rapid updates of free wifi hotspots and mobile charging stations.	
24.	Transcribe Bentham http://blogs.ucl.ac.uk/transcribe-bentham/	Transcribe Bentham is a participatory initiative which is based in the Bentham Project at University College London. Its aim is to engage the public in the online transcription (or typing) of original and unstudied manuscript papers written by Jeremy Bentham (1748-1832), the great philosopher and reformer. At the latest count, volunteers have transcribed more than 20,000 pages of Bentham's writings.	The project was launched in 2010. It is hosted by the Bentham Project in the Faculty of Laws, University College London, in collaboration with UCL's Centre for Digital Humanities, UCL Library Services, UCL Digital Media Services and UCL Research IT Services.	Volunteers transcribe the original works of Jeremy Bentham. Transcripts created by volunteers feed into work on The Collected Works of Jeremy Bentham, which are produced by researchers at the Bentham Project at University College London. This is the definitive resource for anyone interested in studying Bentham's philosophy. Volunteer transcriptions give Bentham Project editors a head-start in producing an edited and annotated text	Crowdsourcing

No.	Name	Description	How and when instigated	Data collected	Type of CSS
				ready for publication.	
25.	Satellite Sentinel http://www.sat sentinel.org/	SSP is the first sustained public effort to systematically monitor and report on potential hotspots and threats to human security in near real-time. SSP synthesizes evidence from satellite imagery, data pattern analysis, and ground sourcing to produce reports. DigitalGlobe satellites passing over Sudan capture imagery of possible threats to civilians, detect bombed and razed villages, or note other evidence of pending mass violence. The Enough Project then releases reports to the press and policymakers by notifying major news organizations and a mobile network of activists on Twitter and Facebook.	SSP launched on December 29, 2010. It was funded primarily by Not On Our Watch, a federally registered charity, founded by Don Cheadle, George Clooney, Matt Damon, Brad Pitt, David Pressman & Jerry Weintraub.	Mapping of reported threats using google maps. Satellite imagery from DigitalGlobe which is analysed to report on Crisis Tracking and Documentation, so evidence of: Bombardment and Attacks; Early Warning of Attacks on Civilians; Evidence of Apparent Mass Graves; Evidence of Forced Displacement; Tracking Compliance in the Sudans; Village Razings	Crowdsourcing
26.	Slavery from Space https://www.zooniverse.org/projects/ezzjcw/slavery-from-space	Slavery from Space is a University of Nottingham's Rights Lab project that analyses satellite images to identify signs of human activity associated with slavery with distinctive aerial signatures, e.g. brick kilns, to help monitor progress towards UN Sustainable Development Goal 8.7. Information can then be passed onto local non-governmental organisations (NGOs) and government officials to support lobbying and action on the ground,	The first project started in 2017, by The Rights Lab, which is a wider initiative by the University of Nottingham to put an end to slavery around the world.	Volunteers tag geo-reference satellite images for the presence or absence of specific features, for investigation on the ground.	Crowdsourcing

No.	Name	Description	How and when instigated	Data collected	Type of CSS
		and also help policy makers reach more educated, evidence-based decisions. As well as improving our understanding of modern slavery, it is hoped that crowdsourcing will engage the online community and raise awareness of modern slavery			
27.	Walkonomics https://twitter.com/walkonomics	Walkonomics is a mobile application that enables urban pedestrians to find walking route to any destination through tree-filled streets and parks. It combines open data and crowdsourcing to rate and map pedestrian-friendliness of streets and urban areas.	Adam Davies and Carsten Moeller launched Walkonomics in 2011.	Walkonomics' ratings are automatically generated from open data and refined using people's reviews. The WalkoBot is an automatic system that rates the walkability of streets by interpreting public datasets. Local users are also invited to add their own ratings. Once enough local users have added their ratings, any errors or inaccuracies should be cancelled out.	Crowdsourcing
28.	Street Link http://www.streetlink.org.uk	StreetLink is a website that enables the public to alert local authorities in England about rough sleepers in their area. This service offers the public a means to act when they see someone sleeping rough and is the first step someone can take to ensure rough sleepers are connected to the local services and support available to them. The service is funded by	StreetLink is a non-profit organisation managed and delivered by Homeless Link in partnership with St Mungo's. StreetLink was developed in the second half of 2012 and launched that December. In its first five years, the service has received over 92,000 alerts about people sleeping rough and passed the information on to local authorities and outreach teams. It is	People are asked to give as much detail as possible about the location - they can use the map on the app to pinpoint the location and include description of things seen nearby. People are also asked to give the time of the day the person was seen, and to try	Crowdsourcing

No.	Name	Description	How and when instigated	Data collected	Type of CSS
		Government and is part of their commitment to end rough sleeping.	principally funded by the UK Government (Ministry of Housing, Communities and Local Government), with additional funding from the Greater London Authority (GLA) and the Welsh Government.	to include as many identifying details as possible such as name, age, gender etc. People also asked to note what the person they're concerned about is doing. For example, if StreetLink is alerted to someone when the person is sleeping/ bedded down then that will help the outreach team find them more easily.	
29.	Scenic or Not http://scenicornot.datasciencelab.co.uk	Scenic-Or-Not is a website and online game that crowdsources ratings of "scenicness" for geotagged photographs across Great Britain. The website comprises 217,000 images covering nearly 95% of the 1 km grid squares of Great Britain. As of August 2014, the Scenic-Or-Not dataset contained 1.5 million votes.	This site was originally built by The Dextrous Web (now Dextrous Digital) for My Society. My Society wanted to gather a freely available nationwide dataset of scenicness, to use for mapumental. The Data Science Lab at Warwick Business School now hosts the site. They are researching how scenicness impacts on human wellbeing.	ScenicOrNot served up a series of random images, each representing one square kilometre of Great Britain, and invited users to rate them (the images were sourced from the Geograph project, an open source repository). The results fed into a database of 'scenicness'. ScenicOrNot collected permits anyone to download the data, under an Open Data Licence, for their own ends.	Crowdsourcing

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Appendix 2: Practitioners interviews discussion guide

Introduction, purpose of study, recording, anonymity etc.

- 1. What do you think about citizen science and such initiatives as Galaxy zoo? In what context have you come across it? What sort of methods and data do you use?**
- 2. How would you define citizen science? Who/what has influenced your work?**
- 3. What are the areas in which citizen science makes sense & areas where it doesn't? Are there examples of where citizen science has achieved positive outcomes?**
- 4. How would you measure success in citizen science? Direct, indirect, diffuse impact?**
- 5. How can citizens be engaged in meaningful way? Are there any specific issues around ethics?**
- 6. How do you conceive of expertise in this area?**
- 7. How can you connect this science with academic science & how can you assess the rigour of such science? What methods do you see as robust & why?**
- 8. What's the future of citizen science?**
- 9. How do you think social science is changing with the increase in citizen-generated data & what can be termed as big data? What role can citizens have in social science?**
- 10. Can you see ways in which citizen science methods could be used in social science?**
- 11. What do you think of the historical Mass Observation data where citizens volunteered to record and submit reports on the world around them?**
- 12. What sort of social issues could be researched using citizen social science based methods?**
- 13. What are the challenges/risks posed to social science eg competing voices, objectivity, data access, ethics, professionalization, funding, peer review?**
- 14. Evidence gaps/limitations. Are you aware of other research looking into citizen social science or any other relevant projects that I should know about?**

Appendix 3: Practitioner interviews

List of practitioner interviews

No.	Role	Organisation/Project	Date of interview
1.	Head of development research	Nominet Trust	September 2014
2.	Lecturer	Goldsmiths University; Kosovo Science for Change	October 2014
3.	Research Fellow	Manchester Institute for Collaborative Research on Ageing (MICRA)	August 2015
4.	Project Lead	Smarter Manchester	August 2015
5.	Researcher	The Near Miss Project, The Creative Exchange Lancaster University	August 2015
6.	Community Organiser	Cycle Hack UK	September 2015
7.	Campaigner; Associate Professor	Leeds University	September 2015
8.	Co-Founder	Safecast	September 2015
9.	Professor	Extreme Citizen Science Research Group (ExCiteS), University College London	October 2015
10.	Digital Sociologist	Cambridge University	October 2015
11.	Citizen Science Manager	Natural History Museum	November 2015
12.	Professor	Cathie Marsh Institute for Social Research (CMIST)	December 2015
13.	Research Associate	Cathie Marsh Institute for Social Research	December 2015
14.	Human Experience Designer	Microsoft Research, UK	January 2016
15.	Project organiser	Dormant Things project	February 2016
16.	Research Associate	Open Lab, Newcastle University	February 2016
17.	Programme Manager	European Citizen Science Association	May 2016
18.	Wellcome Trust Impact Fellow	Wellcome Trust	May 2016
19.	Researcher	Doing It Together Science (DITOS) project	July 2016
20.	HCI researcher	High wire Lancaster	August 2016
21.	Senior Lecturer	Morgan Centre for Research into Everyday Lives	November 2016
22.	Programme Manager	UNESCO's Inclusive Policy Lab	January 2017
23.	Project Manager	Tekiu	January 2017
24.	Senior Lecturer	Philosophy, Linguistics and Theory of Science, University of Gothenburg	April 2017

Appendix 4: Mass Observation Probe 1 – Wording of Directives Analysed

Summer 1990 Directive

MO SUMMER DIRECTIVE 1990

PART I: CLOSE RELATIONSHIPS

Some introductory words.....

In 1984, as some of you will recall, we sent you a directive on Family, Friends and Relations. This directive touches on some of the same questions but focuses specifically on close adult relationships.

You may feel that this is a subject which is too intimate to write about (one Observer said of the last directive that race and class should not be discussed in polite society and declined to reply). If you do feel uncomfortable about answering, please tell us. I do want to stress, however, that your replies remain anonymous. In any case it is always up to you how much you wish to say. You can if you wish confine your reply to your opinions rather than your experiences, but as we have often said before, it is personal experience and insight which have a way of bringing your directive replies to life. The franker you can be, the more valuable your contribution. This is what makes our project unique.

I haven't called this directive 'marriage' because I want to include people in all kinds of situations - single, engaged, married, separated, divorced, cohabiting, widowed, gay or straight, celibate or sexually active. The English language isn't always helpful so please assume that whatever your situation or your age, you are included!

As always, please don't tackle this as a questionnaire. The questions should be seen as prompts to get you going. Write as freely as you wish and include other issues where you feel they are important. I am especially interested in changes over time - either in your own outlook or in society at large - so older people, please bear this mind. Remember to include aspects of your own experience where relevant. On the other hand, even if something is entirely beyond your own immediate experience, don't feel that this disqualifies you from giving us your thoughts.

Please read the whole directive through before starting to reply.

Autobiographical: please begin by telling us very briefly about your own situation - past and present.

Love: what does the word mean to you? What about 'falling in love'? Have you had this experience? Are there different kinds of love? What would be your ideal romantic situation?

If you are single, would you describe yourself as happily single or involuntarily single? How far do you think marriage or a marriage-type relationship would meet your needs? Single people, especially older single people, tend to be stereotyped as spinsters and bachelors. Do you feel this affects you? How does being single (or divorced/widowed) affect your relationships with other people?

If you are married or in a very close relationship with one other person, how do you feel it affects your other relationships? Are several close relationships compatible? Are there rewards to be experienced from friendships which are not available in marriage?

Please turn over

Marriage: What makes for a 'good' marriage? Are your views on marriage linked to your religious beliefs? What do you think about engagements? Why do you think people get married? What about arranged marriage? Do you think gay people should be able to go through a marriage ceremony?

Living together: how do you feel about couples who live together without being married? If this is your situation, what word do you use to describe your partner? Have you consciously chosen not to get married?

Can you write something on the following words? Please relate what you write to your own experience if that is appropriate:

Divorce	Adultery
Separation	Faithfulness
Jealousy	Sex Education
Re-marriage	Computer dating/lonely hearts ads

How important is sex in your life? Do you think that male and female sexuality are fundamentally different? Do you expect sexual activity/enjoyment to decrease as you get older? Many people are celibate or have had times in their lives when they have been celibate. What would you say are the benefits and drawbacks of celibacy in your experience?

Has the spread of the A.I.D.S. virus affected your behaviour or your views on sexual matters? If so, how?

Over the past fifty years, there have been significant advances in contraceptive methods. Do you feel you have benefitted personally? Do you have any views on the recent change in the Abortion Act? What are your views on the availability of contraceptive advice to teenagers?

Guidance to young people: imagine what advice you would give if (a) a young person confided to you that he/she was gay and (b) a young unmarried woman in her teens confided in you that she was pregnant.

Do you feel that your views on all or any of these questions are different from those of your parents? Or from your children's?

If you had been preparing this directive, would you have done it differently? What have I left out?

PART TWO: YOUR VIEWS...

We'd like to hear your views on the directives. Obviously if you've only just joined the Project you can't comment on past themes but you can let us know the sorts of things you'd like to write about.

Which themes have you enjoyed most and least? (Please note here when you joined us). What themes would you like us to cover in the future? Do you prefer writing about your own experience (clothes, thrift, shopping, food, health, holidays) or do you enjoy discussing wider issues (general elections, disasters, the EC, the Falklands War*)? Do you enjoy the one-day diaries?

Would you prefer to have a choice of subjects in each directive? Could you manage more than three directives a year?
[Dir.32 21.5.90]

*(Themes of past Directives)

Autumn/Winter Directive 1993

Mass-Observation in the 1990s

Autumn/Winter Directive 1993

Part 1: Managing Money

Imagine a historian working fifty years on from now in the year 2043 on the question of money. He or she will no doubt see references in the media to a deep economic recession affecting the whole of the UK in the early 1990s.

We can assume that obtaining the facts and figures about the current economic climate will be relatively easy, but what else would you want to put on record about how the situation affects you and people you know? What do the news bulletins on the economic health of the country mean to you? How do they relate to your everyday life? In what ways are you affected by the recession?

As always we are interested in a combination of your own experience, your observations of the world around you and your opinion on the topic. You can reply to this directive in your own preferred way, revealing as much or as little about your personal circumstances as you choose. The more detail you are able to provide which is based on immediate experience, the more valuable your reply. And if you don't have much to say on the subject, please write a few lines explaining your feelings rather than not reply at all.

Some guidelines to be used if it helps to get you writing:

Your personal and/or family situation: it would help if you explained how you budgeted in your household, recording where your income comes from, and who decides how it is to be used. If you feel you want to omit precise details, please note that down so we know it hasn't just slipped your mind.

Perhaps you could start by describing different sorts of income, benefits, salaries, investments, rents, second jobs, sales, presents, loans etc. Does anyone in your household take the main responsibility for the finances? Do you/they keep records of your finances? If so, please describe.

Describe different sorts of basic outgoings: bills for services like gas, electricity, phone, rent, mortgage, food, clothing. Expenses in relation to health and/or education, entertainment, travel, holidays, charitable donations, leisure activities, political or religious activities?

Do you think of some things as essential and some things as luxuries or optional? Please describe what they might be and why. If you celebrate Christmas, perhaps you could note down how you will handle the extra costs this year.

What have been the significant changes in your financial situation in the past, say, 10 years. Why have they occurred? Would you say you were better off now, or worse off? How have you adapted to these changes? What are your hopes/expectations for the future?

In what ways do you think the recession has affected people (including yourself): how do the major national or international events translate into everyday life? Do you follow the financial news in the newspapers, or on TV and the radio?

Do you obtain help and advice about your finances? For example, from friends? family? from your union? workplace? bank manager, building society? accountant? other professionals? from books & leaflets? consumer organisations?

What do you think of the present government's economic policy, specifically in relation to your own experience and your observations of how people you know are managing?

What do you think about the proposal to introduce VAT on fuel? on books? on newspapers? on children's clothes?

Please turn over

Part 2: Birth *(start new page please)*

This section is about both being born, - an experience we all share but presumably few of us remember - and giving birth. It is always helpful if you provide plenty of background detail, including changes in attitudes and practices (your own and other people's) over the years.

Being born: What do you know about the circumstances of your own birth? Has your mother spoken to you about it? Did you learn much from other people about the event? It would be useful if you noted down the year you were born and whether it was at home or in hospital - or somewhere else!

Other births: Can you recall other births in your past? Perhaps of your siblings, your children or grandchildren? What do you remember? Have you ever attended a birth? Whose was it, and how come you were there? What was it like? Stories please!
What is the best birth you've ever heard about? And the worst?

I won't prompt you more on this but I do hope that both men and women Mass-Observers will feel equally inspired to write.

Giving birth: Please note down details of your own experiences (years that babies were born, place etc.). Who attended the births? What kind of experiences were they, and, if you have several children, how did each birth differ? Fathers or other members of families closely involved in a birth should also feel free to answer this section.

Did you prepare in any special way? For example, take advice from friends & family, from midwives and doctors? from books and magazines? Did you attend classes? How much did you know in advance, and how useful was it when you came to the big event?

Did you make a report of any of your births, take photos, make a video? Have you spoken to your children about their births?

What was your experience of the medical people who helped you?

Was your experience of giving birth easy or difficult and painful? Were painkillers any help? Were there any problems? If you feel able, please record any experiences of still birth or miscarriage.

What was it like after the birth? If you want to write about adjusting to motherhood/fatherhood, feeding, sleeping, getting back to "normal" life, then please feel free to do so. Your own experience is especially valuable, but please also feel free to talk more generally about your opinions on these questions and any insights you've had from discussions with other people.

Part 3: "Mass-Observation"

I was talking about this project at a conference in September this year, when a member of the audience commented that the name "Mass-Observation" was horrible and would put people off joining our project. I have grown so used to the title that I find it difficult to think about it objectively. What do you think? What did you think of it when you first heard the term? Has anyone you know been put off from joining by the title?

It was the word chosen by the original team back in 1937, and it remains the proper name of the Archive, but has it passed its "use by" date?

One problem may be that the word "Mass" has changed in meaning over the years. It used to sound more popular and democratic, now we use it to mean the "lowest common denominator": eg mass media, mass production, mass communication. Do those of you who were around in the thirties agree?

Do we need a new title? What could it be? Would it mean we'd lose our historic connection with the past, and does it matter?

The Mass-Observation Archive, The Library, Freeport 2112 University of Sussex, Brighton BN1 1ZX

DS 23.11.93/Dir No. 41

The Mass-Observation Project Autumn 2004 Directive

Part 1: Being part of research

Have you ever carried out research?

Please describe any studies on people that you have carried out in your employment or voluntarily for an organisation - or as part of your own interests.

The kinds of things you might include

- Doing research at school/college/university for projects where you had to investigate an issue
- Community projects eg oral history, local history, gathering local opinions on an issue where you had to interview people
- Being employed to interview people as part of an opinion poll or market research
- Family history or personal investigations
- Government or official research eg for the Census
- Academic research/medical research/anything else you can think of

Please include dates and details of the projects including what you felt about it and what happened to the results. Are you someone who enjoys this sort of activity? Did you feel the research was valuable? If so, why?

As usual, please start both parts of your reply on a new sheet of paper with your M-O number, (NOT name), sex, age, marital status, town or village where you live and your occupation or former occupation.

Remember not to identify yourself or other people inadvertently within your reply.

Have you taken part in research?

Most of us have been stopped in the street by someone with a clip board saying "Excuse me could you spare a few minutes?" Can you recall this happening to you? How have you responded?

Does it make a difference how you are invited to take part in a study (eg in the street, door-to-door callers, surveys at your work place, diaries to be kept of your activities, questionnaires through the post, unsolicited phone calls, questions via email)

Have you ever volunteered to be a "guinea pig" in medical research? Please describe.

Have you been involved in the outcome of research projects? For example, when people are interviewed for an oral history project, they are usually given the interview transcript to read and correct. Has this ever happened to you?

Please describe the different experiences you have had in as much detail as you can, and give your feelings about them.

Do you feel that social research is important? Please comment.

Being put into categories

There are two further sorts of information which are often requested in surveys: *your ethnic group* and *your social class*.

Ethnic group: Have you been asked to supply this information in surveys or ethnic monitoring for jobs? How do you respond? What do YOU think the categories should be called and where would you place yourself and why?

Social class: How do you think this should be worked out? Income? Life style? Education? Family background? Where you live? Have a think and let us know, and say where you'd place yourself and why.

How important to you are these two categories and do you think that the information helps in understanding social inequalities?

Usually the mini-biography which we ask you to send in with each directive reply provides basic biographical information about you for research - your year of birth, the town, city or village where you live, your sex and a brief indication of your occupation or former occupation. Sometimes it includes marital status or family circumstances. How would you feel if we also asked you for information about your ethnic group and social class as part of the M-O Project?

Being private

Is there any kind of information you would prefer to keep private? Eg income, sexual preference, political views, religious beliefs and affiliations.

Reflections on Mass-Observation

Does this feel like taking part in social research? Please explain.

When you write replies to the directives do you consciously think about the people who read what you write and use it in their research?

Have you ever wanted to know more about the people who use your replies in their research?

Part 2: Your Most Recent Dream

Please write down the last dream you remember having, whether it was last night, last week, last month, or whenever. (NB start a new sheet with your mini-biog)

Please describe the dream exactly and as fully as you can. Your report should contain, whenever possible, a description of the setting of the dream, whether it was familiar to you or not; a description of the people, their sex, age, and relationship to you (no real names please); and a description of any animals that appeared in the dream. If possible, describe your feelings during the dream and whether it was pleasant or unpleasant. Be sure to tell us exactly what happened during the dream to you and other characters.

DS/Oct 2004/Dir No. 73

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email: moa@sussex.ac.uk

Appendix 5: Empty Houses Probe 2: Participant information sheet

Empty Houses Project Participant Information Sheet

Thank you for your participation in this project on Empty Houses. Please take the time to read the following information carefully. Please contact us if there is anything that is not clear or if you would like more information.

Who is conducting the research?

This project is part of research undertaken by Alexandra Albert, a PhD student at the University of Manchester and Lancaster University, for her PhD project. The PhD is funded by the Economic and Social Research Council.

Title of the Research – Empty Houses

What is the aim of the research?

The aim of the project is to investigate how to collect data on houses that no one is living in, and which may have been left empty and disused. Such information is often difficult to capture.

What are you being asked to do?

You are being asked to send us information that you may have observed during your daily activities. When you return home you are asked to send us any information on any empty houses that you may have observed that you think have been left empty or are disused in your local area. You are specifically asked not to go out of your way to collect such information. You are also asked specifically not to speak to anyone you would not normally speak to. If anyone asks you about the project please direct them to Alexandra Albert: Alexandra.albert@manchester.ac.uk

What's in it for you?

The aim of the project is for it not to be a burden on you. Please do not go out of your way to find empty houses. The aim of the project is to see what data can be collected as citizens go about their daily lives. Reporting the observations you have made may end up putting you in touch with like-minded people, as well as being an opportunity to reflect on your local environment and your daily activities.

What happens to the data collected?

The researcher will anonymise the data the moment they receive it. This includes removing any data that may identify other people in the observations that are sent in. The data will be then be stored on the University of Manchester servers for the duration of the project for analysis by the researcher. Research material will not be shared with anyone else beyond the confines of the project.

Anonymity and Privacy

All personal information will be anonymised and stored securely at the University of Manchester with access restricted to the researcher. Your real name will not be used in the reporting of findings from the project, or any future works related to this

research. All data that may identify anyone else in the project will also be anonymised.

Risks

If the instructions for participants are followed closely there should be no risks to participants that might be incurred as participants go about their daily lives. However, should any incident arise that you do not feel comfortable with, please contact Alexandra Albert: Alexandra.albert@manchester.ac.uk

What happens if I do not want to take part or if I change my mind?

It is up to you to decide whether or not to take part. If you are happy to take part you will be given this information sheet to keep and be asked to sign a consent form when participating in research interactions. You are free to withdraw at any time without giving a reason and without detriment to yourself.

Contact for further information:

Alexandra Albert: alexandra.albert@manchester.ac.uk

If there are any issues regarding this research that you would prefer not to discuss with members of the research team, please contact the Research Practice and Governance Co-ordinator by either writing to 'The Research Practice and Governance Co-ordinator, Research Office, Christie Building, The University of Manchester, Oxford Road, Manchester M13 9PL', by emailing: Research-Governance@manchester.ac.uk, or by telephoning 0161 275 7583 or 275 8093.

Appendix 6: Empty Houses Probe 2 – Consent form

Consent Form for Empty Houses project

Please initial the boxes next to each sentence and then, if you are happy to proceed, sign below.

- | | | |
|----|--|--------------------------|
| 1. | The researcher has given me my own copy of the information sheet, which I have read and understood. | <input type="checkbox"/> |
| 2. | The researcher has given me the opportunity to ask questions about the project | <input type="checkbox"/> |
| 3. | I agree to take part in this research. Taking part will involve participating in providing data on empty houses which will be stored on the University of Manchester servers. | <input type="checkbox"/> |
| 4. | I understand that my name and any other personal information about me will not be used in any publications and reports of findings arising from this project and that my data will be anonymised. | <input type="checkbox"/> |
| 5. | I understand that my words or personal information may be quoted in publications, reports, web pages and other research outputs but that my real name and any other personal information will not be used. | <input type="checkbox"/> |
| 6. | I understand that I am free to withdraw at any time without giving any reason and without detriment to myself. | <input type="checkbox"/> |

Participant Name BLOCK

LETTERS:.....

Signed:.....

Date:.....

Researcher

I, the researcher, confirm that I have discussed with the participant the contents of the information sheet.

Signed:.....

Date:.....

Appendix 7: Empty Houses Probe 2 - Walking Interviews discussion guide

- 1) You have pointed out some of these empty buildings – what makes you think they are empty?
- 2) Were you aware of empty houses before I mentioned the project? What did you think of empty houses?
- 3) What did you think about your observations of them? Prompt for what to do with observations.
- 4) Who might use such information? Any issues with that?
- 5) Any issues with reporting? Technically and socially? Was there anything you felt uncomfortable doing?
- 6) Are there any other issues that might be affecting the success of the project?
- 7) What do you think of the Empty Houses project? Are there any improvements that could be made or issues with it?
- 8) Do you consider it to be social science?
- 9) Were you aware of the term citizen social science? What does it mean to you?

Appendix 8: Our Manchester probe 3 – consent form

Please initial the boxes next to each sentence and then, if you are happy to proceed, sign below.

- | | | |
|----|---|--------------------------|
| 5. | The researcher has given me my own copy of the information sheet, which I have read and understood. | <input type="checkbox"/> |
| 6. | The researcher has given me the opportunity to ask questions about the project | <input type="checkbox"/> |
| 7. | I agree to take part in this research. Taking part will involve participating in providing data which will be recorded | <input type="checkbox"/> |
| 8. | I understand that my real name will not be used in any publications and reports of findings arising from this project and that my data will be anonymised | <input type="checkbox"/> |
| 7. | I understand that my words or personal information may be quoted in publications, reports, web pages and other research outputs but my real name will not be used | <input type="checkbox"/> |
| 8. | I understand that I am free to withdraw at any time without giving any reason and without detriment to myself. | <input type="checkbox"/> |

Participant Name BLOCK

LETTERS:.....

Signed:.....

Date:.....

Researcher

I, the researcher, confirm that I have discussed with the participant the contents of the information sheet.

Signed:.....

Date:.....

Appendix 9: Our Manchester probe 3 – Interviewer topic guide

Interviewee biographical information:

Name:

Age:

Date:

Community:

Do you feel part of a community in this area?

Do you feel part of a community within your ward [like a religious community, demographic community, community of interest]?

Are there any tensions in the community?

Do you have a good relationship with your neighbours?

Change over time:

How has the community changed over the time you have been in the area?

How has this affected your experiences in the area?

Try to keep the questions as open as possible – ‘Tell me about...’

Themes to cover:

- **Arrival:** coming to Moss Side, to England
- **Settling down:** finding somewhere to live, work and choosing schools, building a community
- **Growing up:** schooling (both state and supplementary, youth clubs and community centres, churches
- **Shocks:** major events (may include housing clearances in Moss Side and then in the regenerated Hulme, 1981 riots, guns and gangs as well as more personal experiences)
- **Moving on:** places that family members moved to, their reasons and experiences after moving of Moss Side and where they went to
- **Ageing in place:** the experiences of older people living in Moss Side now

Informal social contact:

Are there any locations in your community where you meet friends informally, like particular cafes, restaurant, park or public space? Why do you like to go there?

How do you keep in touch with your friends and family? Visits, phone call, email, skype, text messages, twitter, letters etc.?

Final question: *Before we finish, are there any other issues or areas we haven't discussed that you want to raise?*

THANK YOU!

Appendix 10: Our Manchester probe 3 – Interviewer check list

- **Recorder** – make sure it's fully charged or that phone battery is full. Think about where to place the recorder/phone so that it picks up the most amount of talking.
- **Interview** – think about location of the interview – somewhere quiet & where the interviewee is comfortable & relaxed. Tell them about the project. Give them the information sheet to read & then the consent form to sign.
- **Research Diary** – after each interview take a few moments to reflect on the experience and to note down any thoughts about it, what worked and any issues you might have faced. Try to do this as soon as possible after the interview. Also select three most interesting points that the interviewee made during the interview.
- **Data** – be sure to come back to the centre on Great Western Street to download the interview recordings on to the laptop. Darrell and Alex can help with this. Also drop off signed consent forms in folder in office.

Any problems:

Alex on: or email:

Stephen on or email:

☐

Peter on or email:

Alex will also be at the centre regularly to discuss any problems face to face.

☐

Appendix 11: Publications

Academic journal articles:

Albert, A. and Buscher, M. (under development) The very idea of Citizen Social Science. *Theory, Culture and Society*.

Albert, A. (under development). The barriers and opportunities to participation in the Empty Houses Project: crowdsourced citizen social science for more socially robust knowledge. Special Issue of Palgrave Communications on Citizen Social Science: active citizenship vs. Data commodification.

Albert, A. (under development). Observing the observers: Mass Observation data and the changing relationship between researcher and researched. *Sociological Review*.

Sturm, U., Schade, S., Ceccaroni, L., Gold, M., Kyba, C., Claramunt, B., Haklay, M., Kasperowski, D., **Albert, A.**, Piera, J., Brier, J., Kullenberg, C. and Luna, S. (2017). *Defining Principles for mobile apps and platforms development in citizen science*. Research Ideas and Outcomes 3: e21283.

Book chapters:

Soledad, Luna, S., Gold, M., **Albert, A.**, Ceccaroni, L., Claramunt, B., Danylo, O., Haklay, M., Kottmann, R., Kyba, C., Piera, J., Radicchi, A., Schade, S. and Sturm, U. (2018). Developing mobile applications for environmental and biodiversity citizen science: considerations and recommendations. London: Springer.

Gilmore, A., Arvanitis, K. and **Albert, A.** (2018). 'Never mind the quality, feel the width': big data for quality and performance evaluation in the arts and cultural sector and the case of 'Culture Metrics in Eds. Giovanni Schiuma and Daniela Carlucci (2018). *Big Data in the Arts and Humanities: Theory and Practice*. London: CRC Press.

Policy reports:

Doing It Together Science (DITOS) project deliverable D6.6 Innovation Management Plan: "Making Citizen Science Work" (2018) for the European Commission, as part of Horizon 2020 funded DITOS project. At UCL Discovery: <http://discovery.ucl.ac.uk/10063266/>

DITOS D6.8 (2019) Communication, Dissemination and Exploitation Plan. For the European Commission, as part of Horizon 2020 funded DITOS project.

DITOS Research Insight (2018) Use of Soft Systems Methodology to understand the use of Citizen Science in UK Environmental Policy, published internally as part of Horizon 2020 funded DITOS project.