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DESIGNING AND DOING: ENACTING ENERGY-AND-COMMUNITY

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INTRODUCTION

IN THIS CHAPTER, WE REPORT ON AN INTERDISCIPLINARY PROJECT — COMBining expertise in science and technology studies (STS) and design — that explored, amongst other things, the ways in which community can be ‘made’ through energy. Thinking of energy as a heterogeneous assemblage that entailed, in this instance, energy policy, funding opportunities, social and technological innovations, and information flows, as well as the ‘stuff’ of energy (e.g. photons, electrons, ground heat, wind-power), we begin to trace the emergence of distinct ‘communities’ and their interrelations. However, we do not see this as a simple representational project in which we charted this emergence. Rather, the research we conducted self-consciously contributed to this process of emergence. Indeed, we designed a technological device – the Energy Babble – to fold into this emergence, to interject a certain playfulness that, hopefully, affords this process of emergence new or unexpected avenues and openings. On this score, we see our methodology as performative. However, the performativity in which we have engaged is one that, rather than close down the enactment of the social (the community) aspires to open up, or invent that ‘social’.
In what follows, we provide a brief review of the project and its empirical backdrop. We go on to note that this project was performative, and specify our particular version of performativity: in particular, we suggest that many methods can be regarded as probabilistic in that they close down the empirical by reinforcing particular frameworks of analysis, that is, of re-producing existing problems. By comparison, we stress that our project aspired to be possibilistic insofar as it aimed to open up – to reframe – the issues at stake, specifically how to understand the interconnections between community and energy. We illustrate this possibilistic dimension of making the social through an examination of the design of the Babble. We follow this with an extended reflection on the ironies of the project and the Babble – how its possibilistic intent was, in multiple ways, not always realised. The chapter ends with a discussion of some of the more general implications of possibilistic research.

ENERGY COMMUNITIES

Between 2011 and 2012 the UK Departments of Energy and Climate Change (DECC), and Enterprise, Trade and Investment (DETI), the Welsh Government and Sciencewise-ERC (an organisation promoting public dialogue between policy, science and technology) provided £10 million to fund the exploration of twenty-two low carbon ‘test-bed’ communities through the Low Carbon Communities Challenge (LCCC). The objective of the project was to fund and learn from local community-based approaches to the implementation of low carbon technologies and measures in achieving energy demand reduction, and to explore sociological models of behaviour (notably the notion of ‘nudge’) to trigger so-called ‘behaviour change’ amongst the communities. According to the evaluation report (DECC 2012), the LCCC project saw the delivery of 8206 low carbon measures, including but not limited to the installation of low energy light bulbs, boiler jackets, biomass district heating systems, solar photovoltaic (PV) installations, air source heat pumps, wind turbines, triple glazing and smart energy monitors, as well as community
evaluation and infrastructure projects including low carbon vehicles and car clubs, home visits and energy assessments, community hub buildings, advice sessions, open days and conferences. The initiatives and measures deployed as part of the LCCC implicated a wide range of ‘stakeholders’ as constituents of energy communities. Accordingly, (energy) community, in this sense, can be seen as an object and instrument of UK government policy with which to cut across and include a diverse range of local actors and settings involved in energy demand reduction, such as local authorities, third sector organisations, local enterprises, households, individuals, energy companies, social interest groups, resident associations, transition groups and so on. The overall ambition of the LCCC was to inform and contribute to the UK government target (DECC 2009) of delivering a 34% reduction in carbon emissions by 2020, as well as an energy supply target of 15% sourced from renewables (30% of electricity), also by 2020.

In the direct aftermath of the LCCC, and as a means to further build on and sustain the many concrete initiatives that emerged as part of the programme, the Research Councils UK (RCUK) led a further programme of research into energy communities as part of its Energy Programme. This initiative, led by the Economic and Social Research Council (ESRC) and the Engineering and Physical Sciences Research Council (EPSRC), funded seven projects that aimed to assess, evaluate and report on the communities that participated in the LCCC, as well as explore further developments with community-based carbon reduction and environmental action. One project within this initiative, and the focus of this chapter, was the project ‘Sustainability Invention and Energy Demand Reduction: Co-designing Communities and Practice’ (ECDC). Here, ECDC specifically responded to the call for projects to ‘work directly with communities to examine how individuals and communities use, and manage energy, and help them find ways to reduce energy demand’.

Furthermore, and (with some circumspection) drawing on Wenger (1998), the project aimed to address communities of energy demand reduction practice and how such practices raised issues about the nature of social and technical practices, notably demand reduction and resource management – a key objective of UK energy policy through
measures such as the replacement of fifty-three million domestic gas and electricity meters with so-called smart energy monitors and In-Home Displays (IHDs) by 2020 (DECC 2013: 6).

If this formed the backdrop to the project, it soon became apparent that the efficacy of feedback and monitoring technologies, as well as the very premise of behaviour change (Dietz et al. 2009), was subject to considerable dispute, not least in the following ways. First, the introduction of smart monitors in the home is part of a broader UK environmental policy objective to effect behaviour change in the home, where a benign informational nudge is considered an effective intervention into routine energy consumption practices (Burgess and Nye 2008; Darby 2006). Through empirical evidence, however, recent scholarship has begun to refute the effectiveness of behavioural intervention. Feedback technologies, and energy-saving technologies more broadly, have been seen to give rise to the ‘boomerang effect’ (Schultz et al. 2007), where perceived savings lead to an actual increase in energy use or little or no change (Buchanan, Russo, and Anderson 2015). Second, the preoccupation with behavioural intervention as a means to address energy consumption side-lines, or simply ignores, the sociotechnical settings of energy consumption practices (Shove 2003; Hargreaves, Nye, and Burgess 2010) and the sophistication of energy consumers (e.g. Strengers 2013). As such, recent scholarship has begun to question how individuals-as-energy-users are configured as calculative actors capable of reflecting on and making rational decisions about energy consumption irrespective of the situated complexities of energy demand. Indeed, as Noortje Marres (2012) notes, drawing on Michel Callon (2009), carbon accounting technologies, notably smart meters, ‘co-articulate’ the simultaneous enactment of multiple registers, including politics, economics and innovation. That is to say, such technologies elicit and mediate environmental action, political engagement and domestic comfort simultaneously. Taken alongside Elizabeth Shove’s emphasis on social practices which similarly embeds the energy user within a nexus of technological, cultural and corporeal relations, it is clear that there are emerging alternatives to the economisation of the energy user, with its focus on the rational, calculative individual of energy demand reduction. In this context, it is unsurprising that the literature on feedback technologies that purportedly
reduce energy demand calls for a more nuanced, ‘thicker’, understanding of the energy user as constitutively situated within a sociotechnical assemblage. Such a view can also be set alongside a longstanding preoccupation within STS with the development and deployment of energy-related technologies, and the more or less problematic attempts to enrol users figured into particular innovation initiatives. For instance, we can point to such classic studies as the (failed) development of electric cars (Callon 1986), the prospective users of a mass transportation system (Latour 1996), the ambivalence of villagers to be enrolled as citizens by way of electricity meters in the Ivory Coast (Akrich 1992), and the role of interpretive actors in constructing the meaning of electric light bulbs (Bijker 1995).

With all this in mind, the ECDC project set out to avoid narrowly conceived assumptions about what constitutes a community, not least one that is composed of the rational, calculative energy users figured in energy policy and much supporting literature. In so doing, the approach taken was shaped by the particular interests and make-up of the project team, notably a combination of HCI approaches to ludic design (Gaver 2002) and speculative design (Michael 2012; Wilkie, Michael, and Plummer-Fernandez 2015) – where designed artefacts are deployed to explore the prospects of technology and everyday life – and sensibilities in STS attuned to the empirical study of social processes involving heterogeneous mixtures of human and non-human actors. As such, the ECDC project set out to question, challenge and explore core assumptions at play in energy policy and the associated literature, namely the instrumentalised characterisation of communities as morally responsible collectives of rational citizens (see Rose 2000). Such communities can be understood as novel objects of policy that sit between measures for disciplining the conduct of individuals and broader policy instruments, such as the cap-n-trade economies of market-based emissions trading. In contrast, the mixture of design and STS that comprised ECDC was sensitised to both rational and non-rational meaning and practices, as well as to collectives that did not privilege or reduce communities to human actors, let alone human actors of a particular sort. So while we began with a view that communities are constructed (e.g. Cohen 1985), we regarded their construction to be a heterogeneous process, one in which technological
practices could be seen to be constitutive of ‘hybrid communities’ (Callon 2004). However, as we discuss in the next section, the character of our methodology went beyond the mere documentation of such constructive heterogeneity: as we discuss in the section, we as researchers were intimately implicated in this constructive process.

**Method and Metaphysics**

As a collaborative project that spanned social science and design, ECDC can be understood in numerous ways. From a social scientific perspective, it is a speculative approach that assumes the performativity of its methods in making its objects of study. This view of method has become a commonplace, perhaps best articulated in the work of John Law (2004). For Law, reality is in flux, characterised by emergence, relationality and multiplicity. In trying to study such a reality, one is necessarily performing or enacting it, and, in some ways, fixing it. Rather than method, Law prefers the notion of ‘method assemblage’: this enables us to address the fact that any methodological engagement entails, on the one hand, many levels (e.g. affective, pragmatic, political as well as epistemic aspects), and, on the other, a partial process of rendering relations – relations which both reflect the flux and complexity of that reality and necessarily delimit that reality. There is, as Law remarks, a ‘crafting of a bundle of ramifying relations that generates presence, manifest absence, and Otherness’ (Law 2004: 45). Nevertheless, the notion of ‘method assemblage’ allows us to ‘imagine more flexible boundaries, and different forms of presence and absence’ (ibid. 85). In particular, we can also begin to imagine this as a process whereby these different forms of presence and absence are partially constitutive of the researchers themselves. That is to say, the method assemblage (which includes the researchers, of course), in its multiple relationality with the world-in-flux, is itself subject to emergence.

This argument can be approached through the notion of the event. Drawing on the process metaphysics of Whitehead, Deleuze and Stengers, the event is an ‘actual occasion’ that comprises social/material, micro/macro, human/
non-human, and cognitive/affective elements (or prehensions). These ‘con-
cresce’, in Whitehead’s (1978 [1929]) terms, to yield a momentary durability
or ‘satisfaction’. Crucially, one can regard this concrescence less as a matter of
interacting elements (which retain their identity) and more as one of intra-
action (Barad 2007) in which prehensions mutually change, co-become, or
become-with one another. Assuming that a method assemblage is a part of the
concrescence that makes up the ‘research event’ (which can range from a single
interview to an extended period of participant observation, or a multi-sited
ethnography), then it too can co-become with other elements (e.g. human and
non-human participants). This also raises the intriguing spectre that what is
happening is not research but something rather different. No longer is it simply
a matter of a research question being addressed, but rather the grounds of the
empirical engagement begin to shift.

This account of the research event borrows heavily from Isabelle Stengers’
(2005) cosmopolitical proposal. Accordingly, when political actors interact,
they can co-become, in the process reformulating not only their own interests,
but also the very point of the cosmopolitical event. In other words, instead
of seeking answers to a pre-existing question, issue or problem, the question
or issue or problem has itself shifted. With such a shift comes the prospect of
formulating a more interesting issue, or posing better, more relevant questions,
that is of engaging in, as Mariam Fraser (2010: 78) puts it, ‘inventive problem-
making’. Two challenges arise here. First, how can (energy demand) problems
be induced to express their relevance in and to the research event, something
we address in what follows in the literal form of a designed research device.
According to Fraser (ibid.), the ‘(ethical) obligation here, in other words, is not
to solve a problem, or to explain it away but rather to try to enable it to “speak”
or to pose it in terms that enable it to play itself out in productive ways’. Second,
and given the researchers’ constitution in the research event, how to speak about
the event without explaining it away as if from nowhere (Haraway 1988: 581)?
In other words, how to be situated in the research event and contribute to its
becomings and problem articulation?

One upshot, and response to the challenges posed above, is that the research
event, by virtue of both making and being made by its objects of study, can take
on a more speculative tenor. As social scientists, we need not address ourselves to a shifting reality in which we are methodologically embroiled and epistemically emergent, in terms of our usual analytic frameworks. Perhaps we can take a more speculative tack and re-envision the research event, and imaginatively reformulate the issues at stake in it. Following Stengers (2010: 57), we might wish to develop an approach that ‘affirms the possible […] actively resists the plausible and the probable targeted by approaches that claim to be neutral’.

One might be tempted to read into this phrase an opposition between the possible and the probable. We often see these as tendencies that range over a no-doubt multi-dimensional spectrum, and as such we prefer to use the terms *probabilistic* and *possibilistic*. Indeed, as we shall see below, the relation between these is rather more topological, with what is to count as possibilistic or probabilistic being an emergent and relational property rather than something that can be measured against external criteria (Lash and Lury 2007). For the moment, however, we want only to note that our methodological entrée into the empirical field, which we briefly summarised in the preceding section, was a multivalent one, though our focus and that of our participants was mainly upon the speculative device of the Energy Babble (see next section). In other words, within our method assemblage, there was a battery of elements. These included devices such as cultural probes (Gaver, Dunne, and Pacenti 1999) and the project website, engagements such as probe workshops and site visits, re-scripting workshops to trace and interrogate the geographies of delegation (Akrich 1992: 206) materialised by existing feedback devices, experimental and evaluative prototypes, individual relations (though these born as much out of the contrast with other projects in the programme and the government funding regimes to which the communities were connected), and so on. While our focus remains on the Babble, what the Babble ‘is’, and what it lures and co-becomes with, is multiple (Mol 2003) in the sense of being variously probabilistic and possibilistic. Phrased in the language of ‘inventing the social’, our method assemblage of devices, engagements, bodies, and so forth stands in the topological enactment of energy-and-community as at once marked by inventive problems and standardised questions.
THE ENERGY BABBLE:
A DESIGN DEVICE AND THE POSSIBLE

At the beginning of the project it was not evident that the interdisciplinary team of designers and social scientists (of which we were part) would design a research device in the form of a ‘product’ or appliance. However, through an engagement with and exploration of the problem space of community-scale energy demand reduction – including but not limited to ethnographic and designerly contact with seven existing energy communities, an investigation of environmental and energy demand reduction technologies, a review of energy literature and policy, as well as design propositions in the form of design workbooks (Gaver 2011) – the design team began to focus on the design of a device that would itself playfully mediate the problem space of energy demand reduction. 3 In part, this approach was inspired and informed by four pronounced design directions that gained traction during the project: 1) Energy Tourism: how sustainability changes our relation to visible energy infrastructures; 2) Insistent Activism: how to re-situate and reformat discourses of the environment and sustainability in unfamiliar, unpredictable or inappropriate ways and settings (e.g. apart from formal community meetings) and how to open up discourses that have hardened around known problems and solutions (e.g. behaviour change and off-the-shelf green industry technologies such as PV installations); 3) Energy Awareness: how to support communities of practitioners in sharing their experiences, expertise and successes (or failures), and; 4) Cosmopolitical Energy Communities: who or what are the members of energy communities, and what are their dynamics? Here, the increasingly salient role of the internet and social media in mediating environmental discourse and action as well as community initiatives sensitised us to the emergence of novel practices and energy actors such as Bots (Wilkie, Michael, and Plummer-Fernandez 2015). 4

As these interests coalesced and concretised (over the period of a year), we formulated a design brief to synthesise our examination of the design space and to precipitate the design of the research device: 'Design an Energy-Babble system that displays material, collected from some combination of individual, community and publics sources, to open and promote constructive affect and involvement in
energy reduction issues and orientations. More specifically, the system should support understandings of, and practices related to, energy demand reduction’.

Over the next eighteen months, the team designed what became the Energy Babble (Fig. 5.1, below), which took the form of (or parodied) a networked audio information appliance – to be given to community members – that vocalises (quite literally speaks out using software based synthetic voices) internet-sourced and community contributed content. Needless to say, this involved much aesthetic and technological expertise and work, including a combination of graphic, product, sound, software and electronics design.

The resulting design and system consisted of twenty-eight individual devices, the audio content of which was produced and managed by an online server-based content scraping, audio generation and distribution system featuring algorithmically sourced and generated environmental and energy-related content.

The Energy Babble device combined a Raspberry Pi computer, a loudspeaker, a Wi-Fi card, a soundcard, a memory card (for the OS) as well as two blown-glass sections, an injection-moulded main enclosure and microphone handset, a 3D printed volume knob and internal support structures, and a large-diameter cable.
to connect the microphone handset to the main enclosure. The server software, which provides and manages the audio content of the babble, included software routines and algorithms to retrieve web-based content including:

- Scraping Twitter feeds from a range of pre-identified energy-related feeds, including the communities, local and national government, the energy and green industries, and activists and other implicated actors.
- Querying Twitter for the occurrence of particular search terms, such as ‘climate change’, ‘energy bills’, and ‘renewable energy’.
- Querying Twitter for the occurrence of tweets that include the text string ‘switched off the…’ and returning a list of things (broadly put) reportedly having been turned off.
- Scraping textual content from URLs that are returned in tweets as part of Twitter queries.
- UK National Grid status updates, including current energy demand and carbon intensity, as well as the ratio of sources (coal, combined cycle gas turbines, nuclear, wind).

In addition, the server software also managed the input of content from the community members who used the device, including a variety of questions and prompts that were sporadically spoken through the device. This was, in part, a means to invite users to contribute content by using the microphone handset to communicate with others using the system.

Lastly, and notably, the system featured a Markov Chain algorithm, which used the corpus of content generated from the above routines to probabilistically produce new and often locally intelligible (to the system’s collection) text strings. In other words, the Markov function takes the words of others (human or non-human) and produces new content, sometimes appreciable, at other times nonsense.

When running, the Energy Babble system provided a sporadic interplay of spoken statements, evocative of talk radio, drawn from the pool of content provided by the sourced content, the algorithms and community inputted messages. Each message was cued by a short jingle, indicating and segmenting the
spoken feeds. In the main, the content comprised energy and environmental news, reports of energy practices, and other matters relating to sustainability. Often, though, other content and topics entered into the speech, originating from the source and the Markov-generated interjections.

In total, twenty-one Energy Babble devices were deployed to members of the seven energy communities we had engaged, each community receiving three to four devices, and often handing over the device to other community members after a period of use. The handing-over of the devices was conducted at pre-organised community events, events organised specifically for the handover, or to individual, typically prominently active, figures, where appropriate. The deployment continued for approximately six months, during which time members of the team repeatedly visited the communities and listened to the ensuing content using a device set up in the team’s studio or at home.

At base, the Energy Babble (the combination of the networked devices and the server-based system) was a research device designed to reveal how local communities engage with energy matters (news, views, practices, experiences, demand) as well as live with and include an energy-related and consuming technology as part of their everyday practices. On the one hand, the Energy Babble sought to mediate and explore how the seven communities share information and experience its multiplicity, utility or otherwise. On the other hand, the device also sought to occupy and actively articulate (by expressing and connecting) the problem space of energy demand and carbon reduction by scrambling, interjecting and provoking, or inviting, responses. How might the communities react to the presence of, or participate with, the Babble with all its idiosyncrasies and playfulness in what are, after all, issues of the utmost urgency? Rephrased in the terms of the preceding section, the Babble was designed to nurture a ‘possibilistic research event’ in which the users might begin to co-emerge with the Babble and thus pose more interesting questions about energy demand reduction, about the nature of community and its embroilments with energy, and about the meanings of energy information and its movements (not least through and across communities).

In what follows we consider some of the ironies of the implementation of the Babble. While in this section we have gone into detail about the design
intent and effort that went into the Babble, the Babble does not stand alone. It is part of a method assemblage in which it arose amongst existing relations to the communities (and particular figures within those communities) and to a series of enactments of energy politics by both the communities and the members of the research team. As such, while we reflect on some of the reactions to the Babble on the part of community members, we mainly focus on those aspects of the method assemblage that militated against a possibilistic research event. Put another way, we begin to trace how the inventiveness of the invention of the social through the research process, despite the best of intentions, can become diluted.

**ASSEMBLING ENERGIES, COMMUNITIES AND IRONIES**

The team’s initial contact with energy communities came about through a one-day event organised on behalf of the RCUK energy programme for all the award holders at a hotel in Central London. A key aim of this event, as it turned out, was to introduce and, preferably, match communities to research teams, and thus to initiate longer-term research engagements. This was done by way of presentations and posters (summarising each project), which the research groups brought to and displayed on the walls of the conference room. Representatives of LCCC communities, present at the event, were invited to approach research teams whose research interests matched their local efforts, initiatives and interests. The vivid yellow poster for ECDC described our research process in three stages (investigation, batch production of speculative devices, and ethnographic engagement) and portrayed, using photographs, two previous research devices (i.e. Gaver et al. 2010; Gaver et al. 2011) in order to communicate what was, in contrast to other projects, a more unusual approach. Both here, and during the follow-up meetings with the communities that approached the team during the event, it became apparent that many community members viewed ECDC as a curiosity in that it did not promise a technological fix, clear solutions or epistemic assurances. Despite, or perhaps because of, the lack of utilitarian or instrumental expectations,
however, the communities were drawn to the prospect of hosting and living with an exploratory device as part of their routine energy practices (neither we nor they knew exactly what the device would be, beyond being a discrete product-like appliance). We surmised at the time that the relative popularity of the ECDC project lay not only in its novelty, but in its contrast to standard social methods – methods that the energy communities had long been exposed to as, or so we were told, one of the most researched populations in the UK (e.g. Clark 2008).

Notwithstanding the team’s seemingly successful efforts to frame the initial expectations of the communities, during the handover of the Babble to the community members – approximately two years after the first meeting – the expectations elicited again relied upon or required the device to address utilitarian demands. Upon receiving the device, G, from the Meadows, for example, exclaimed, ‘We thought we were going to get a gizmo to save energy’. Another Meadows member asked if DECC was going to receive a Babble so that they could complain directly to the UK Government about an ongoing dispute with British Gas. A retired engineer from Rye Harbour, near Hastings, asked, ‘How does this improve the social operational wellbeing of the people who use it? If I make an investment, how do I get a payback?’ and continued: ‘I wanted it to solve a problem’. At Woodlands Valley Farm (an organic farm and conservation and sustainability activity centre), in Ladock, members of the Ladock Grampound Road Transition Group were initially perplexed, though curious, when introduced to the Babble. Their expectations were altered, however, by an electrician who interceded as an impromptu spokesperson for the Babble. The electrician quickly realised that the Babble used a Raspberry Pi, a ‘British’ technology which he was already using at the heart of his home-made low-powered home media centre, and that the Babble could be repurposed (a common response across the communities) as a way to report on and broadcast the state of his experimental car-battery-operated home electricity system. In doing so, he also quelled the members’ concerns over the Babble’s energy consumption, and advocated the pedagogic prospects of the Raspberry Pi, suggesting that it could help members undertake their own experimental projects. J, from Sidmouth, echoed the impulses of the electrician to reconstruct the Babble by suggesting...
that it could use the internet connection of a mobile phone and be powered by a car to allow for some kind of mobility.

Similarly, when deployed to the members of Energise Hastings, during a routine meeting at which representatives of Hastings Borough Council were present, the Babble was first likened to a smart monitor and its adoption was framed in terms of extending or integrating with existing feedback technologies. Crucially, it was also viewed as a device that could be enrolled for marketing purposes; as one member put it, ‘That is a very powerful sales tool’. Latterly, however, the views of the members changed, typified by one member’s response: ‘It’s a new type of thinking, you don’t know what you’ll get, it might just be chaos’. Thus, at Hastings, and at Reepham and at Sidmouth, the Babble became construed, in part, as a device that could be enrolled to play a role in community outreach and awareness activities and thus operate to persuade people to become involved in sustainable issues and practices, as well as to interest prospective community members.

This instrumentalised view of the Babble does not simply reflect the practical interests of these members of energy communities. It is also partly a response to the way that we presented the Babble. The process of implementing a speculative device involves presenting it as something strange or novel – however, this strangeness and novelty cannot be so extreme as to be threatening (as opposed to promising – see Michael, in press): as such, ironically, the temptation is to temper the novelty or strangeness by suggesting that the device also has practical uses. In other words, the research event was affected by the ways in which we as researchers transmitted mixed messages that performed our speculative device (the Babble) as simultaneously speculative and instrumental. We can see the contortedness of our enactment of the Babble in the ways in which it is described in Figure 5.2 (an article on the Babble in the November 2013 issue of *Reepham Life*). On reading the article, and Bill Gaver’s account, one is left with a sense of quasi-instrumentality, to coin a phrase: there are hints at the Babble’s oddness but also at its utility, though these are never quite clear. On reflecting on our own practices of implementation – especially on how we described the Babble to our energy community participants – we detect a similar ironic contortedness of trying to express
both the strangeness and utility of the device, to at once excite and reassure its prospective users.

Despite these observations, we can nevertheless note the variety of ways in which the Babble was instrumentalised: as an energy saving gizmo, a means of direct communication, a problem solver, a model use of Raspberry Pi, and as a marketing tool. Indeed, we suggest that these cumulative instrumentalisations imply a possibilistic opening up of the very idea of the instrumental in relation to energy demand reduction. In other words, there is a second-order irony at play here. Especially if these accounts of instrumentality were circulated via the Babble, there is a possibilistic prospect of speculative reflection on – that is, asking more interesting questions about – the meaning of what counts as instrumental (and this includes cognate terms such as practical, utility, or problem-solving). Moreover, there arises the possibility of using the Babble to

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**Fig. 5.2** The Energy Babble, held by project member Matthew Plummer-Fernandez, as featured in the November 2013 issue of *Reepham Life* (Reepham Community Press)
pose more interesting general questions about the complex practical purposes that might attach to communities-and-energy.

By contrast to (the ironies of) this highly instrumentalised view of the Babble, other rationalities or sensibilities were also evident across the communities. For example, D from the Meadows announced that she would name the device ‘Finnegan’ in reference to James Joyce’s literary stream of consciousness style. An artist, also from Meadows, who was somewhat engrossed by an experimental form of sustainable living in a low-energy eco home, designed with her husband (an architect) and built on industrially polluted land, characterised (perhaps unsurprisingly) the device as an intercom-like ‘Art Babble’. Soon after receiving a Babble, J from New Cross sent an SMS: ‘It’s amazing! I love it so much already. The messaging system reminds me of the barbed wire telephone system in Wild West. Seriously – Google it. Thanks guys :).’ On first reading, this might suggest that the instrumental can also be side-lined and the aesthetic privileged. However, the ease of such a categorisation (at least amongst some participants) might, ironically, imply a closing down or probabilistic enactment of the Babble’s speculative role. So, insofar as it can be categorised as an aesthetic other it might leave untouched the probabilistic, instrumentalised business-as-usual of the communities-and-energy.

So far, we have looked at the initial reception received by the Babble. We now reflect on how it was enacted over the course of its implementation in various private and public spaces. As above, there was a marked ongoing appreciation of the Babble as an aesthetic artefact as well as a novel technical device. R, from Reepham, described the device as beautifully well made in hand blown glass, and P from the Meadows called it a ‘really nice object’. However, here we concentrate on the varieties of instrumentalisation of the Babble, not least with regard to the utility of the information which it broadcast. It was clear that there were two key issues here, the first of which related to the type of information involved. Thus, during use, the germaneness of the internet-sourced content that the Babble recurrently uttered was called into question, although what counted or was construed as appropriate varied across communities and members. J, from the Meadows, who used the Babble in her office at the local social club, suggested that the device could have a ‘filter’
(reporting on government and community rather than oil and gas) since it vocalised much extraneous information. M, from Hastings, who viewed the content as a reflection of the complex milieu of community energy demand, related how the repetitiveness of the content suppressed the relevance of the Babble (a view shared by J from Ladock). At the same time, M noted the similarities between the Babble’s information and the content of conversations on and around the topic of carbon reduction. Second, germaneness was also shaped by the timeliness of the Babble’s broadcasts. Here, J remarked how the Babble would not speak on cue, and that once spoken, messages could not be retrieved. Neither of these observations should come as much of a surprise: we would expect that an instrumental enactment of the Babble would focus on the content and timing of its messages. However, more intriguing was the ways in which the instrumentalisation of the Babble spun out to take in other elements of its milieu within the communities-and-energy.

To put this another way, the eventuation of the utility of the Babble brought into play a series of other elements. These can be summarised as the siting or placement of the Babble, the timing of its installation, and its connectedness to other issues and concerns. With regard to siting, the previously discussed article in Reepham Life (Fig. 5.2), features the Reepham Green Team, who invite suggestions for further installation sites for Babble. With regard to timing, R, at St Leonards said, ‘if you had given this now, then it might have been more useful to me.’ R reported using the device as part of the energy initiatives he was involved in, such as an energy advice event at Bexhill which, he claimed, attracted four hundred people, most of whom wanted advice on their energy bills. R also used the Babble in efforts to partner with a Dutch energy supplier in order to market and sell community tariffs to individuals. Most notably, R made repeated reference to the recent emergence of Community Energy South – a meta-community of sorts – that is itself a partnership of energy community groups across the south of England. The Babble could have been instrumental in this process had its timing been better. With regard to connectedness, the Babble’s utility was also played out as an aspect of proximity to other energy issues. In Ladock, for example, J spoke of how the Babble echoes her involvement with Christian Aid and Credit Unions, where energy issues are associated
with issues of poverty (which overspill often parochial UK concerns with the environment and technology). The Babble also connected, according to J, to the relation between energy and the agricultural sector (in which individuals are employed and with which communities are engaged).

Taking all this together, we see how the typical problem of instrumentalising the Babble in pursuit of the probabilistic enactment of community-and-energy (business as usual, as it were) also shades into a possibilistic eventuation of community-and-energy. For example, the various attempts to make the Babble useful suggest that interesting problems can be posed about what counts as community-and-energy. What we see in the above brief examples are attempts to make the Babble informative – attempts that draw on the Babble’s spatial and temporal setting and its issue connectedness. Along the way, we also glimpse a more possibilistic rendering of community-and-energy in which the spatial, temporal and substantive (i.e. content-full) parameters of a community are questioned. The sorts of questions that come to mind might include, Where are the ‘right sites’ for the Babble, sites which recreate or challenge a sense of a discrete community-and-energy? How does the Babble evoke other versions of community-and-energy (e.g. around international poverty) and how do these fuse with, or become differentiated from, the local community-and-energy where the Babble is installed? ‘How does the timing of the arrival and installation of the Babble affect the ongoing enactments of a particular community-and-energy, as some of its members forge connections into other collectives?

CONCLUDING REMARKS

In this chapter, we have attempted to trace out how a particular design and social scientific interdisciplinary project might speculatively engage with communities-and-energy. The key methodological intervention – the Energy Babble – was designed to enable people playfully to explore the character of energy demand reduction and thus the character of those communities themselves. As such, our aim was, via the Babble, to ‘invent a social’ that was possibilistic – that opened up an unforeseen or not-as-yet version of the social (more specifically,
the communities-and-energy). As it turned out, and partly as a result of certain tacit enactments of Babble by the research team (i.e. the de facto focus on the possible utility of the Babble) and the responses of the participants, we were faced with many instances of how the Babble was variously instrumentalised. However, rather than simply see these as probabilistic enactments of the Babble in which communities-and-energy emerged more or less unaffected (engaged in business as usual), we also detected more possibilistic dimensions to these processes. In particular, we suggested that in the attempt to render the Babble straightforwardly instrumental for the community, the very meanings or parameters of instrumental and community became open to more interesting questions.

Finally, there is a broader lesson to be drawn here, a speculative reflection on speculative method itself. If our interdisciplinary methodology was geared to accessing the possibilistic, it clearly provoked the probabilistic. We hoped to see an exploration of the possible in relation to community-and-energy; that is, an enactment of the social that was open and unfolding. Instead, we found a probabilistic enactment – an instrumentalisation – of our key methodological tool (the Energy Babble) that seemed to reinforce the existing performances of the social. And yet in this very process there were hints of a possibilistic enactment of community-and-energy. The anti-speculative responses to our speculative enactments ironically yielded a tacit speculation. Speculative method might thus be speculative, not because of its speculative character or intent, but in spite of it.

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NOTES

3 The communities that were engaged as part of the ECDC project were a mixture of ‘first mover’ (recognised by policy actors as exemplars of carbon reduction initiatives) and ‘second mover’ (showing clear evidence and commitment to cutting carbon emissions and implementing sustainability measures) communities (DECC 2012: 10) and included: Energise Hastings; Greening Goldsmiths; Low Carbon Living Ladock; Meadows Partnership Trust (Nottingham); Reepham Green Team; Sid Valley Energy Action Group; and Transition New Cross.
4 We are paraphrasing Gaver et al. (2015), who provide a complimentary discussion of the design process which gave rise to the Energy Babble.
5 See http://www.gridwatch.templar.co.uk for an example of online National Grid status.

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FIG. 6.1 Barcelona Pavilion, above and below ground (photos and composition: Andrés Jaque, 2012)