HOUSEHOLD DIGITAL MEDIA ECOLOGIES – METHODOLOGICAL INNOVATIONS FOR FOSTERING RESEARCHER-PARTICIPANT TRUST

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Introduction

A key aim within much existing research on domestic technology use has been to gain access to households to develop a better understanding of the "'intimate histories' of how we live with a variety of media" technologies (Morley 2007, p. 204), through examining these technologies in use, in situ. This, however, is more easily said than done. A major hurdle facing researchers is that the home is, of course, a quintessentially private space – one comprised of "narratives, practices and sensory experiences that [are] not usually available for public view" (Pink 2004, p. 1). The presence of a researcher recording the everyday activities family life in the private sphere of the household, ideally for extensive periods of time, is often impractical and invasive (Hine 2000; Mackay & Ivey 2004). Not surprisingly, household media ethnographies have tended to focus on particular technologies, including pioneering research on television (e.g. Morley 1986; Spigel 1992), and computers (Lally 2002). The unique challenges presented by the home as a private, "polymediated" environment (Miller & Madianou 2012), and by the dynamism and complexity of the connected home, call for additional methodological approaches and processes.

In this paper, we describe a research methodology we have developed, based upon digital ethnography approaches, and which used mobile devices, digital ethnographic software and creative data collection activities, in order to overcome requirements for researchers to always be present in the field and to foster trust between us as researchers and our participants. Our approach, refined over the course of a number

of interconnected research projects, addressed these difficulties through a staged process – utilising traditional ethnographic techniques, but augmenting them with something more novel: the "domestic probe".

Background

"Domestic probes" are an adaption of "cultural probes", a method developed by Bill Gaver and colleagues in response to the problems of user-centred design (Gaver et al. 2004). Cultural probes are particularly suited to investigating people's everyday lives in settings difficult to reach using social science methods, such as questionnaires, interviews, focus groups, or participant-observation. This allows collection of data from sites where researcher presence is problematic, allows research materials to be collected over longer periods in multiple locations, and allows participants to provide samples of their own world in their own way. While cultural probes may appear to have much in common with diary studies or experiential sampling, they are intended to provoke greater participant engagement.

Research approach

Across our research projects, we adapted a cultural probe approach (which we called a domestic probe) by merging it with other techniques in order to support a more ethnographic approach of recording the everyday activities family life over an extended period of time, and to include participants as active collaborators in creating and interpreting their use of technology in the home. In essence, the domestic probe comprised a box of equipment given to a household to use in recording and interpreting their use of domestic technologies. They were kits of provocations, recording devices and other light-hearted activities and tools (stickers, scrapbooks, diaries, craft supplies). The precise contents of each domestic probe pack depended upon the make-up and preferences of the households being researched, and use of them (and their contents) evolved and was refined over the projects.

In more recent work, we extended our participatory approach through the use of digital media. We pre-loaded iPad minis with a data collection software tool, Ethnocorder, which we adapted for our domestic probes, extending the domestic probe approach with more digital ethnographic techniques. Participants used the Ethnocorder app to record images, video, sound and text, and to store and share the recordings with the researchers. Using these technologies, our participants were asked to collect situated visual representations of domestic technology use. In particular, we asked participants to periodically generate visual data framed around a number of playful "televisual tasks", named because they were inspired by familiar television formats and conventions that would likely be familiar to participants. Tasks were designed to capture the household's technology use using familiar televisual genres of a "nature documentary" (to capture household technology use in its "natural habitat"), "news report", "paparazzi shot", "diary room entry", and "chat show interview".

Trust and household technology research

As we will argue in this paper, these approaches carry three specific trust-related methodological benefits (and challenges). First, the playful, whimsical, and sometimes provocative, nature of the research toolboxes we left with households

had the positive effect of fostering participant trust in us and in the larger aims and ambitions of the research.

Second, this trust worked both ways. Not only did we have to trust participants with sets of research tools left behind for them to use (or not), we had to trust them having significant involvement in longitudinal research. The domestic probes stood in for us as researchers *in absentia.* They remained behind after we left each household, and provided these households with "objects to think with" (Papert 1980), and were designed to encourage and empower subjects to collect, share, and interpret data in partnership with researchers. This is to say, by agreeing to participate in the study, the respective householders were in effect agreeing to participate as *co-researchers* or *collaborators* in our research work. Although as researchers we recorded, interpreted and analysed probe-traces and the ensuing conversations, the probe required the close collaboration of and trust in the participants, not just as passive data sources – as subjects of research – but as full participants. Not only were they responsible for the traces that built up as the probe was used, the probe's traces invited participants to reflect upon and articulate their relations with the technology as the traces accumulated.

Third, the probes sought to disrupt familiarity with quotidian technologies and their uses, and to prompt participants to reflect on how and why they accommodated and "domesticated" – that is to say, trusted – particular household technologies. The recordings or traces generated through the use of the domestic probes provided provocative and evocative grist for the mill of conversation among the participant householders, and between the participant householders and ourselves. Through these conversations, participants explained the significance of the media and technologies that populated their homes. In this way, these methods facilitated insight into and understanding of the ways in which existing and newly introduced technologies were being used in private spheres of everyday life.

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