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Urban Tapestries: Experimental Ethnography, Technological Identities and Place

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URBAN TAPESTRIES: EXPERIMENTAL ETHNOGRAPHY, TECHNOLOGICAL IDENTITIES AND PLACE

Roger Silverstone and Zoetanya Sujon¹

Abstract

Urban Tapestries provides a mobile location-based platform to connect people with the places they inhabit through their stories, experiences and observations. Currently based on an 802.11b mesh network in the heart of London, ordinary people author their stories of the city and embed them in the places that inspire them. Others who are logged into the system can read these stories, author their own and engage the largely invisible, multidimensional layers accumulating in the city. Our research asks if people use UT in meaningful and interesting ways. Drawing from theories of everyday life and urban space, we have developed experimental ethnography as a method for investigating the relationships between communication technologies, users and the socio-geographic territories around them. Respondents are asked to play with an early Urban Tapestries prototype and this research explores what they do, their technological identities, their relationship to place and the meanings they generate. Urban Tapestries facilitates the negotiation of boundaries and we found that it does augment notions of connectivity – to place and to those within that place. However, our research revealed that some do not interpret this connectivity positively.

¹ The authors wish to thank the editors of the electronic working paper series, particularly Andy Pratt, and two anonymous reviewers for their comments on an earlier version of this paper.

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Introducing Urban Tapestries

I love it, and I never thought that living in central London would be like living in a village.... You have everything you need from shopping to close proximity to all your friends. So it seems very easy to me, and I know my way around – every block in this area – and it's incredibly beautiful, a lot of it. And there is definitely something glamorous about living right in the middle of one of the biggest cities in the world (Betty 27, freelance copywriter and Bloomsbury resident, on what makes Bloomsbury home, 2003).

'What is the urban?' he [Henri Lefebvre] asked. The urban is not a certain population, a geographical size or a collection of buildings. Nor is it a node, a trans-shipment point or a centre of production. It is all of these together, and thus any definition must search for the essential quality of all these aspects. The urban *is* social centrality, where the many elements and aspects of capitalism intersect in space, despite often merely being in part of the place for a short time, as is the case with goods or people in transit (Shields 1999: 145).

On a conceptual level, Urban Tapestries is a set of tools, manifested in wireless, location-based technologies, designed to open the intricacies and complexities embedded in the urban spaces around us. It is about being able to read those intricacies whether they have been deeply inscribed via the history of the built environment; or have barely marked the surface via the footsteps of a passing sightseer. Urban Tapestries is an application designed to reveal the layers of presence, whether left yesterday or yesteryear, within our urban environments. It is about being able to communicate and understand the intimate knowledge that, as Betty mentions above, make a place home or conversely, what makes it not home. It is about sharing what parts of the landscape hold meaning for people and reading the individual markers people use to make sense of the city. As Rob Shields states above, it is about understanding the social, historical and tangible materials making up the 'social centralities' of place. Urban Tapestries aims to collect the largely invisible pathways left by urban occupants in order to better understand the identities and specificities of place.

Figure 1: Urban Tapestries Glossary and Prototype 1.0

Three screen shots from an example of one of the devices, an HP iPAQ pocket PC, capable of hosting the 'Urban Tapestries' prototype.



Drifting:

The larger red circle indicates where you are in the city and in relation to other **threads** (as indicated by the coloured lines) other users have authored. This function allows users to search for threads and pockets of interest.

Authoring:

Selecting 'author' allows the user to create a story, write a message, and digitally 'attach' a sound or song – any of the things making up a 'pocket' within a specific location or by a specific landmark.

A Pocket:

This screen shot shows a pocket containing text, an image and a sound file. The UT team created this pocket as an example of what the public authoring system is capable of and what pockets might contain.

More specifically, Urban Tapestries² (henceforth UT) is a research project bringing together designers, programmers, artists and social scientists in order to develop a system, or the prototype of a system, that allows people not only to personally map their urban spaces, but also read the maps of the neighbours and strangers who share those spaces. People can create these maps using text, images and sounds captured via their electronic device (see figure 1), and rather like writing graffiti,

² Conceived, initiated and managed by Proboscis, a cultural think-tank, and at the time this research took place, Urban Tapestries held partnerships with Hewlett-Packard Labs, Orange and MEDIA@LSE. The Department of Trade and Industry, Arts Council England and the Daniel Langlois Foundation provide funding for it. Collaborators include France Telecom R&D, Locustworld and the Ordnance Survey. Additional sponsors include Sony Europe, Apple Computer UK and Garbe (UK) Ltd. The Urban Tapestries research team includes Alice Angus, Daniel Angus, John Paul Bichard, Katrina Jungnickel, Giles Lane, Rachel Murphy, Zoetanya Sujon and Nick West, with assistance from Nigel Palmer, Huw Jeffries and James Wilkes. For more information, see <http://www.proboscis.org.uk/urbantapestries/participants.html>. Roger Silverstone and Zoetanya Sujon have designed and conducted the research discussed in this paper. Rachel Murphy observed and provided assistance during the interviews with Mandy and Stanley, Jill, Mark and Justin.

digitally attach these messages to the locations of their choice.³ This process is called 'public authoring' and according to the UT team, involves privileging:

The experience of the individual over typical location-based services which control and author the *user* experience. Our [model] makes authorship and access to content the central relationship, enabling people to act as co-creators of the information embedded within the wireless and mobile environment, not merely as consumers of pre-authored content. The Urban Tapestries model relies fundamentally on communities, not on service or network providers. It is intended to be a pervasive rather than ubiquitous service, rooted in locale and community

Anyone logged into the system can author or open those stories, messages, images or sounds when they pass by the location where the story has been 'attached'. Each individual story, including the accompanying sounds and/or images, makes up a pocket, which people can stitch together – authoring their own patterns and connections – by linking them through digitized threads. These threads are electronically woven together creating a vivid tapestry mapping urban inhabitants' movements in and through their local or surrounding territories (e.g. figure 2 illustrates where Jill authored her pockets and features the contents of one of her pockets. See Appendix A for full details of and images in each respondent's pockets).

Ultimately, Urban Tapestries aims to meet two objectives: first, to provide a system meant to bring out the richness of local histories and personal experiences into the street. Second, to establish a public resource for local information similar to the geographic equivalent of the internet.⁴

³ Proboscis has developed its own system architecture for annotating geographic space with multimedia content, which supports client applications for wireless PDAs (HP iPAQs running Pocket PC) and Symbian Smartphones (Sony Ericsson P800s – developed with France Telecom R&D). The Ordnance Survey has provided map data for the system architecture and advice on geographic information systems. Proboscis has adopted Locustworld's MeshAP 802.11b wireless networking solution for installing and maintaining a local WiFi mesh (which connects UT clients to the internet) for tests and trials.

⁴ Urban Tapestries is a dynamic project and there are many aspects and concepts within this project worthy of critical research. For example, UT clearly challenges existing understandings of place, space and knowledge. Additionally, UT generates a number of provocative theoretical questions and perspectives. For example, Proboscis' peer-2-peer framework brings together a diverse range of interested parties – academics, geographers, media and communications scholars, sociologists, media professionals, cultural journalists, technological designers, public intellectuals, artists – and whoever else is interested in the discussion. Thus the process of innovation and collaboration challenges traditional laboratory contexts and opens innumerable questions about communities of practice, processes of knowledge legitimation and development and not least, the communicative practices of those in new media with new media. However, the remainder of this report will leave these questions aside, concentrating on the experimental ethnography conducted for this report. In

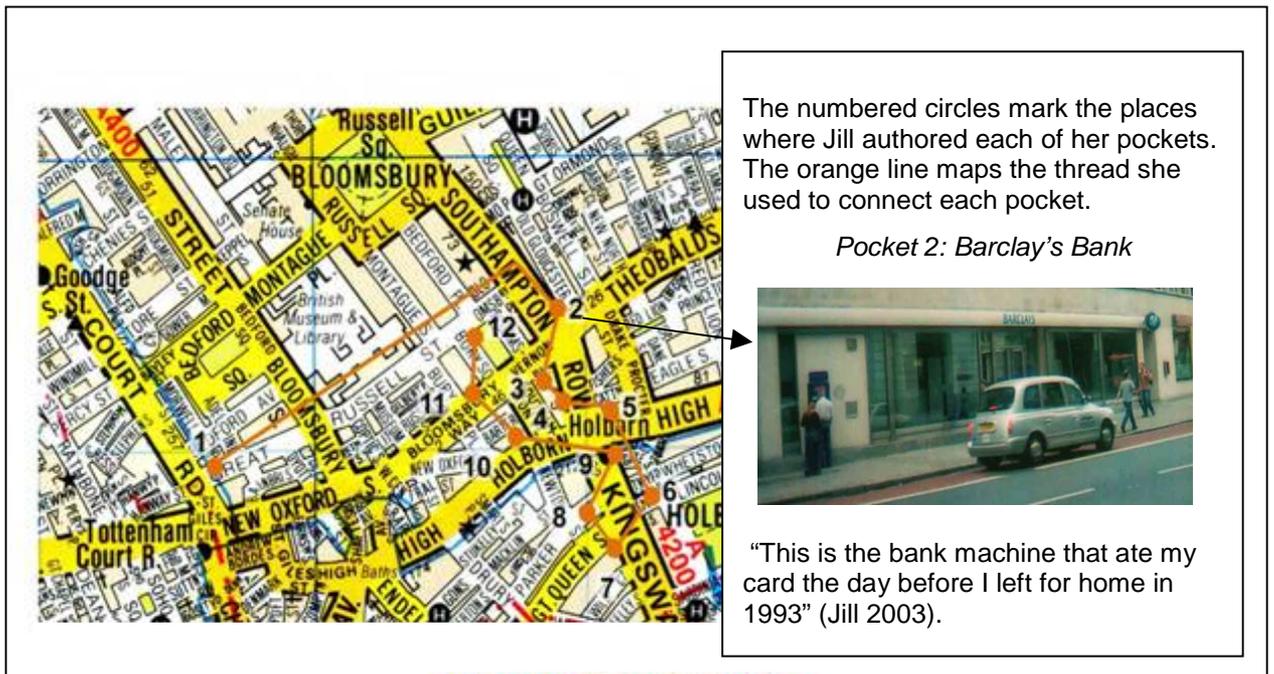


Figure 2: A Pocket in Jill's Thread

This research and the UT prototype, grounds broader questions of urban space within the particularities of a central London neighbourhood called Bloomsbury. Bloomsbury is a diverse neighbourhood with a rich history in the bustling centre of what Saskia Sassen would call a 'global city,' and as such, provides a vibrant starting point for experimenting with meaning and place.

Before outlining the remaining structure of this report, it is necessary to issue a technical caveat about UT. First and foremost, there are serious technological limitations imposing barriers on when and how the aims of UT will or can be fully realized. For example, location-sensing applications like GPS (global positioning system) cannot precisely position a 10 x 10 foot cube in the shadow of buildings or other structures (c.f. McGrath 2003). As members of the UT team claimed from the outset, this project is working with concepts for which the appropriate technologies still need to be developed:

We aim to reasonably predict what might occur within a 2- to 7-year time frame. This allows us to use off-the-shelf hardware and software solutions in our prototype, and grounds our thinking in the extrapolation of current trends (Jungnickel, Lane, Murphy and West, forthcoming).

other words, it is with some reluctance that we bookmark a considerable number of questions for future analysis.

The imperfect state of the technology contributes to the experimental nature of this investigation. As discussed below, the social research project is not a usability trial, in fact, if there is any relation to usability, it is about conceptual usability.⁵ The aims, terms and objectives of this investigation are introduced and outlined below.

Aims and Objectives of the Social Research Project

Ultimately, this research is about the kinds of interaction and relationships existing between our respondents, communication technologies and place. The UT social research targets how users respond to the early technological manifestation of the aims outlined above. In this way, this project is more about testing, rather than challenging, the potential for UT's goals to be enabled. In other words, UT may be able to theoretically deepen people's connection to urban spaces and facilitate new kinds of collaborative relationships, but does it? Perhaps more precisely, do respondents want it to? For this investigation, one of our central questions asks: do people use UT in meaningful and interesting ways? What do respondents do with UT? Can UT reveal how people negotiate and make meaning of their urban spaces? Drawing from these answers, we conclude with an overview of the social costs and opportunities attached to UT.

In order to address these questions, we propose 'experimental ethnography' as a methodology. It is important to note that experimental ethnography is about fluidity and openness, not only as a method but also for capturing emergent characteristics and impressions of a new technology. This is a methodology for tracing connections and change, as it happens, instead of as it is predicted. As such, experimental ethnography is not representative or generalizable, nor does it aim to be. Rather, we hope to situate the specificities of not just each respondent's experience with UT, but their biographies, their social, cultural and geographic locatedness with their (non)responsiveness to UT.

In this sense, experimental ethnography is a flexible methodology well suited for analysing not only *emergent* socio-technical systems, but also how individuals

⁵ By this, we are referring to UT's influence on the imagination and its efficacy in communicating place – or more precisely, for providing a framework for the communication of place. Related to this form of 'conceptual usability,' we are asking what UT can reveal about how people negotiate their local spaces and their relationships to and with their communication technologies. Particularly because this line of analysis contributes to understandings of how communicative technologies – like UT – mediate, influence or express the relationships between respondents and their built environments.

interpret and interact with such systems. It is this openness that is absolutely crucial for understanding how individuals perceive technologies around them; rather than pre-configuring people as users of particular technologies and particular systems (as seen in 'early adopter-to-laggard' like frameworks). In this way, experimental ethnography aims to acknowledge the myriad of ways individuals envision their local landscapes, as experienced in their everyday lives (c.f. Oudshoorn et al. 2004; Oudshoorn et al. 1993; Woolgar 1991).

In part, our methodology is experimental because we ask people to participate in a qualitative quasi-experiment; and it is ethnographic in part because our theoretical framework and research methods draw not only from cultural anthropology, sociology and media studies, but they are also grounded in the everyday lives of our respondents (as field experiments in psychology might be). Experimental ethnography offers an ideational and organizational frame for our research and is closely bound up not only in public authoring but also in understanding UT's potentiality. For a complete overview of our methods, including a brief genealogy of experimental ethnography, an overview of our sampling techniques and the sample demographics, see Appendix B: Methodology.

Our findings are organized around four themes. The first of these is 'technological identity' and attempts to understand the relationships our respondents have with the communication technologies in their lives. In other words, we aim to understand what ICTs (or aspects of ICTs) are personal or impersonal, significant or superficial and consistent or contradictory. Although only a selection of our respondents' technological identities are presented here, the range of experiences and varied kinds of relationships illustrated in this ethnography are valuable. This section not only identifies the kinds of conflicting attitudes, values and feelings communication technologies tend to inspire, but also provides an in-depth view of how and why informants interact with ICTs in the ways they do. For more details on how we assessed and put together each respondent's technological identity, see Appendix C: Technological Identities and Respondent Relationships to Technology.

The second theme is organized around issues of place. Drawing from Michel de Certeau (1984), Henri Lefebvre (1987, 1999 in Shields) and other theorists of everyday life and critical geography we open up some of the socio-cultural meanings embedded within space and place. These issues are reflected in one of UT's most unique features, namely, public authoring. The key questions in this section ask:

how do respondents use UT in the negotiation of place and their own spatial practices; and lastly, what is meaningful or interesting about this? We found that respondents use UT to negotiate or play with the boundaries of the spaces they knew, making claims and staking out their territories. Following de Certeau's distinction between space and place, UT enables the translation of space into place.

The third theme is about social knowledge, and we explore the theoretical relationship between social or 'embedded' knowledges and UT. For example, *Urban Tapestries* opens access to the everyday geographic and social histories ordinarily invisible to long term and temporary inhabitants. Thus, Donna Haraway's (1996) theory of situated knowledges is useful for connecting location based knowledge and not only what kinds of knowledges – but also the ways respondents engage, manipulate and exchange such knowledge. Here we turn to informants' pockets, considering not just the kinds of information and stories they told, but also how they use UT to make or omit meaning. Respondents' threads and their pockets can be found in full in Appendix A.

Lastly, the fourth theme addresses UT's social costs and opportunities in two ways: first, by briefly introducing other projects that are arguably a significant dimension of UT's conceptual history, namely the situationist practices of 'unitary urbanism' and 'derivé'. These practices contribute to a deeper understanding of connectivity and provide an important foundation for introducing the second set of criteria used to assess UT's social costs and opportunities: respondents' evaluations of UT. The latter part of these findings are about usability, what informants liked and what they didn't like. Some of the social costs include predictable barriers like time, money, increased perception of risk (i.e. carrying an expensive object may attract muggers) and the mood of one's social, economic and cultural context. Surprisingly, respondents perceived different elements of connectivity as both a cost and an opportunity. For those respondents who eagerly supported UT, an increased sense of control, play and the benefits of experimenting were all framed as social opportunities. For those who were more sceptical, loss of control, lack of functional purpose and unwanted connectivity (to place and to people) were perceived as costs.

One of the most taxing challenges of this research is that at the time of this research, Urban Tapestries didn't yet exist.⁶ We were working with a prototype whose technical capabilities and propensities are taking shape while conducting the research. Because of this, people aren't familiar with and are easily confused by the device, its navigational metaphors and sometimes struggle with the concept of public authoring. Similarly, observing the social connotations of texting and how it may or may not resonate with mobile phone users before it became a common practice poses acute methodological problems. We are not suggesting that UT's features are impossible things to learn, rather, that this unfamiliarity poses a real obstacle for respondents. Finally, we have organized this research around the idea that people will likely use UT as they would their mobile phones⁷ or the internet, meaning, we have asked them to engage UT as individuals. However, it is important to note that this may not be the final scenario.⁸ Nonetheless, this research exposes how individuals experiment with UT. Findings suggest that UT successfully augments our respondents' relationship with Bloomsbury, but fails to convince most of them that this is a valuable or worthy asset.

⁶ However, as of January 2004, UT is location sensitive and the public authoring framework is interactive. UT was tested in a public trial in December 2003. For further details, see the UT blog: <http://diablo.proboscis.org.uk/MT/UT/>.

⁷ It is important to note that the UT team hopes to see UT hosted on mobile phones. In fact, during the latter half of the public trial Symbian smartphones (SonyEricsson P800s) were used. For more info, see the Proboscis web-site:

<http://www.proboscis.org.uk/urbantapestries/prototype.html>.

⁸ For example, Alice Angus, one of Proboscis' co-directors, has been responsible for implementing several bodystorming events, the results of which are generally positive, highly charged events confirming the value of UT. Bodystorming is generally a half day event involving a demonstration of UT and asks participants (generally 10-20 people) to try out the concept using a 12 x 10 foot canvas map of central London. People write their pockets on post-it notes and place them in the appropriate locations on the map. After enough time has lapsed, people are asked to explain their pockets to the others in the room. Having participated myself [Zoe Sujon], it is an enjoyable experience that challenges your creative powers, enrolls you in the UT experience and the social framework. Sharing your pockets with others who have also participated in the bodystorming event is both fun and thought-provoking. We raise this point to illustrate that the outcomes of this research may have been very different had it been designed upon the bodystorming model. It is important to note that the sociality of bodystorming provided an impetus for looking at how respondents would use UT individually, both as a contrast to bodystorming and to reflect the ways other intimate technologies are generally engaged.

Experimental Ethnography

We have proposed the term experimental ethnography in order to encapsulate the methodology we have developed for the research reported here. In doing so we are aware of two things. The first is that it is a term that has been used, though with different inflexions, elsewhere in social science. We review some of these uses below. And the second is that it is itself an initial, provisional, notion. Doubly experimental, as it were. The research poses a number of challenges, not least the desire to be able to say something meaningful about the uses of a technology that at the time of this research, did not yet exist in a fully functioning form. In this respect the methodology was required to be oriented to the future. But it also needed to confront the socio-technical as a grounded phenomenon, grounded, that is, in the density of everyday life and the subtleties of individual biography.

Ethnographic approaches to media and technology have enabled understandings of the often contradictory realities of media and technology in use. These realities, the product of an interface of past experience, present demands and influence future expectations on the one hand, and the constraints of culture and personality on the other, have enabled a level of analysis of the relationship between the social and the technological which consistently and properly challenges the ambitions and expectations of those who see the authority of invention as sufficient to guarantee use, and the process of diffusion as being driven by a logic signally removed from the constraints and uncertainties of action and inaction in everyday life.

UT offers potentially innovative functionalities. Experimental ethnography, as we are proposing it, involves taking the methodological presumptions and ambitions already well established in media and technology research into a space which has something of the laboratory about it. We are aware that this is not wholly new; that commercial companies have, and continue to, set up formative and evaluative research among potential users of a new technology by giving them prototypes to test and to assess. We are also aware that it is not wholly accurate. We have not constructed a formal experiment, in the sense of having, for example, a control group. What makes this ethnography experimental is the juxtaposition of its aim to capture the relationship between present and future uses of technology, and the passage of that relationship, as it were, through the sieve of culture, biography and experience. It aims to capture

the fluidity of technological change and the fuzziness of objects, machines and media as they feature in the daily round.

In this setting such a methodological approach can not be definitive, and it is certainly not definitive in the present study, especially given its scale. But it has, or claims to have, significant value notwithstanding. It aims at providing an informed scepticism about the trajectory and predictability of technological change. It also offers reasons for that scepticism in the identification of the complexities, differences and contrariness of our everyday relationships to objects and media. Ultimately, our method engages tools that are in and of themselves experimental, but also allows experimentation with the conditions and environments those tools would, if at all, be engaged. This is, at least, what we are aiming for in this limited study. It is, as we have just suggested, doubly experimental.

Despite the differences between existing conceptions of experimental ethnography, existing approaches (for details, see Appendix B.1: Situating Experimental Ethnography) emphasise the importance of creative approaches to difficult and/or elusive research subjects and/or phenomenon. In this sense, experimental ethnography provides useful insights for thinking about mobile or messy objects. The flexibility of 'experimental ethnography' as a practice illustrates that it does not have an exclusive meaning and does not dictate a particular method or set of investigative practices other than pushing conventional anthropological and social science boundaries. Our vision of experimental ethnography is similar to these in that we are also interested in phenomenon that is difficult to capture and in that we are also using experimental tools. However, our emphasis on relationships (between UT, techno-social identity of 'users' and the situatedness of urban places) and the technological object (UT) invites a broader and deeper experimental frame.

Nick Couldry elaborates on the merits of developing fluid methods, capable of capturing relationships and resonances:

Culture emerges 'on a differently configured spatial canvas' (Marcus 1995: 98) where the connections between sites matter as much, and sometimes more, than the sites of imagined closure (the village, the city, the nation state, or even the globe)... There *is* no vantage point from where an accurate map of 'the world's cultures' and all their interconnections can be drawn up (2000: 105).

Our respondents may not be able to point to a vantage point of the world's cultures, but our approach permits them to point to a previously invisible Bloomsbury, their Bloomsbury. The methods we use to understand this Bloomsbury are outlined below.

Methods

Consisting of multiple techniques, experimental ethnography includes four data-gathering phases, each of which not only corresponds to one of four analytical objectives, but also engages distinct methodological tools. However, it is important to note that the following phases are not mutually exclusive and there is overlap between objectives and techniques. See Appendix B for a complete overview of our methodology, including a brief history of experimental ethnography as it has previously existed and an introduction to our sample and sample demographics. In total, we chose a small sample of nine socio-economically diverse respondents, ranging in age from 19-61. The sample was also chosen based upon their relationship to Bloomsbury. In order to gain insight into the variation of possible ways that UT may mediate relationships or connections to place, we chose 4 Bloomsbury residents, 2 commuters, 2 occasional visitors and 1 tourist. The key phases of our research are introduced below.

*Phase One: Snapshots of Relationships to ICTs (Questionnaire)*⁹

Ultimately, this phase of the research is about exploring respondents' technological identity. By technological identity we hoped to construct a 'portrait' of each respondents' social and technological relationships. This stage of our research involved sketching the key features of these portraits by looking at respondent's technical 'competence,' degree of dependence (or dependencies), levels of importance and the ways in which they value their communication technologies. In order to establish demographic and ICT frequencies, respondents were asked to complete a preliminary questionnaire exploring their relationship to communication technologies, via the kinds of mobile and communicative devices in their everyday lives, how often they used them, how long they'd had them etc.

Phase Two: Relationship to Place and Technological Identity (Interview)

After carefully ensuring respondents were fully informed about the nature of UT and our research goals, we asked them to conduct an in-depth interview about their

⁹ Following ethical standards of social science research, respondents given informed of the research objectives and what would be expected of them as participants, what the research was for and how it be used. Given this information, respondents were asked to give their informed consent before participating in this research.

relationship to Bloomsbury, to their home and other areas they occupied. In addition to these place-based questions, respondents were also asked to think about how they communicated with and between their social networks in or out of these locations. Drawing on the information provided in the questionnaires, it became possible to develop the sketches drawn from the questionnaires into fuller portraits of their technological identities. These in-depth semi-structured interviews aimed to understand not only the kind of relationships respondents had with ICTs, but also the kinds of visions they had of their own technological identities. These results are elaborated in Appendix C.

Phase Three: Strategic Walking Tour (Experiment)

Choreographed but not scripted, this phase began with a 20-30 minute training session introducing respondents to an analogue and digital version of the prototype. Using both of these as guides, we went through the key UT terms and metaphors¹⁰ before respondents were asked to perform at least two pocket finding tasks with the analogue version. After respondents had successfully found and opened two pockets, we discussed any questions or comments before embarking on the walking tour. During the first part of the walking tour, respondents were asked to use the prototype to guide both the researcher and themselves to the nearest pocket. Given the rudimentary technical capacity of the early prototype, the researcher acted as a technological mediator of sorts, verbally indicating when entering the pocket's general proximity.

The researcher and respondent explored the existing UT pockets in this way for the first part of the walking tour. Respondents were not instructed what, when or where they should start making their own pockets, and only 2 respondents created their own pockets in the researcher's presence. Once respondents successfully navigated parts of Bloomsbury using the prototype, they were asked to create and record their own pockets and threads. At this point, the researcher and respondent separated. Respondents were asked to take photographs and record their stories and thoughts in a version of the UT prototype.

¹⁰ The metaphors for the presentation of content on the prototype included thread, pocket and tapestry (see figures 1 and 2 for examples). The terms used for publicly authoring included 'home' (the log-in page on the prototype), 'capture' (what to do if the user wanted to take a picture or record a sound for a pocket), 'drift' (the page capable of picking up pockets and threads and effectively the 'on' position allowing the prototype to sense location based information), and finally 'author' (or pocket creation – contains a keyboard and portals to image, video and sound libraries so users can create pockets with any combination of multi-media content).

One of the purposes of this phase is to analyse the role of Urban Tapestries in guiding informants to the places informants visited, how they related to those places, the kinds of social meanings they produced about those places and how they attempted to translate and weave those meanings into their 'urban tapestry'.

Phase Four: Social Knowledge, Usability and Technological Imagination (interview)

Concluding the research with a final interview, respondents were asked to talk about their experiences with UT, where they went, what their pockets were and how they decided what to include in their urban tapestry. This section of the interview also probed respondent's vision of the future, asking what kinds of technologies they would like to see in the future, and questioning the kinds of things UT could (or could not) be used for. It is predominantly from the data gathered here that we can think about both UT's conceptual usability and respondents' technological imagination, also a significant part of respondent's technological identity. Of course, how informants did or did not engage Urban Tapestries as a technical and conceptual object (e.g. degree of excitement or scepticism) offers some interesting insights.

Although not officially a phase of conducting the research, analysing the data also involved multiple methods. For example, the questionnaires had to be analysed, interviews analytically transcribed, photographs, threads, and pockets were collated and coded and a series of academic and UT specific materials (gleaned from participant observation and both documentary and textual research) had to be examined. One of the original questions inspiring this research addressed social inclusion and exclusion, particularly the ways in which socio-economic inequities can be reflected in the digital divide. Inclusion here, is necessarily also about exclusion.

Frequently, studies of communication technologies, particularly emerging technologies, neglect the tensions raised by and between insiders and outsiders. In an attempt to disrupt the replication of social, geographic and technological patterns of inclusion and exclusion, of insider or outsider, in our research, we took a number of precautions. In addition to developing a unique and open methodology, we chose as diverse a sample as possible, opting for depth rather than generalizability. Additionally, this research examined the social and spatial particularities of one community, Bloomsbury. In this sense, we observed a range of in situ respondent relationships, not only to ICTs, but also to a London neighbourhood, workplace and urban centre. Although given the scale of this research, we could not address

insiders and outsiders in terms of the digital divide. The socio-economic diversity of our sample and ethnographic methods meant that we could look at insiders and outsiders in at least two senses: media and place. First, in terms of respondent relationship to technologies, we were able to work with a whole range of intensities, from those with extended 'insider' knowledge and membership within groups with highly integrated ICT use. Second, as elaborated in Appendix B most clearly outlined in Table 3, we chose respondents based upon their relationship to place and contingently as insiders / residents of Bloomsbury and outsiders to Bloomsbury.

Having introduced our vision of experimental ethnography, and outlined our methods, we must now turn to the four clusters organizing our findings: technological identity, place and public authoring, social knowledge, and finally, the social costs and opportunities our sample associated with urban tapestries.

Findings: Technological Identities, Place, Social Knowledges and Usability

Experimental ethnography invites a full exploration of the complex relationships between mobile technologies and urban places, generating rich data including a range of observational, interview, survey, photographic and academic research. In order to make sense of this data, we chose to frame the research through a portrait of each respondents' technological identity and relationship to place. This means looking at what kinds of skills respondents have, what technologies they interact with and how frequently, and finally, understanding how respondents value those skills and technologies. Quantitative data (like that gathered by earlier studies of ICTs) alone may provide an overview or a snapshot of each respondents' overall attitude to some ICTs, but it is qualitative data that can really make sense of the subtleties, contradictions and specificities of each respondents' technological identity. Thus, although one of the disadvantages of our approach may be the quantity of data, the richness of this data is also one of our methodology's key strengths.

The concept of technological identity is a useful way of framing the kinds of relationships people have with their ICTs. It became clear that respondents had contradictory relationships, rarely maintaining the same attitude consistently and for

all ICTs. Additionally, our sample did not always conform to expected ICT consumption, skill and interest patterns according to age and gender. Finally, informants continually emphasized the importance of control in positioning their attitudes towards and perceptions of ICTs.

Public authoring facilitates the tracing, the negotiation and marking of individual and collective boundaries. As boundaries and dividing lines are mapped, new levels of exclusion and inclusion are created. Respondents engaged different navigational tactics depending on their relationship to Bloomsbury, and used UT to not only aesthetically embellish their spaces, but also to place themselves in their localities – or as some theorists would argue – to claim ownership over their territories (Bull 2000).

Briefly reminding the reader that our central research question asks: do people use UT in interesting and meaningful ways, it is important to note that the answer is yes. Almost all of our respondents did engage UT in interesting and meaningful ways. Others, whether due to the technical unfamiliarity, sensations of technological saturation or even outright distrust of new technologies were more reticent, as seen in Armand's thread. Yet, even for the latter respondents, the ways they spoke about what they did with UT, about their experiences of Bloomsbury, of home, of their relationships with technology and their perceptions of UT were most certainly both rich and engaging. Despite some heavy criticism of UT, all respondents agreed that the experience was an enjoyable one – a finding we suggest means that UT is fundamentally a playful technology, a peek-a-boo of oral history and social knowledge. Without further ado, we would like to draw your attention to the range of technological identities among our respondents, as characterized by the differences between the cyborg and the luddite.

1. Technological Identities: From the Cyborg to the Neo-Luddite

There is an increasing body of work dedicated to mapping what communication technologies people use and understanding how people relate to those technologies. One of the most frequent models used for understanding these relationships includes

some version of a scale originally developed by Everett Rogers for understanding the diffusion of innovation, which ranges from “early adopters” to “laggards” (1995 [1962]). In this sense, people are positioned primarily as consumers or non-consumer, as users or non-users. Their relationship to technology is singularly defined by what kinds of CTs or innovations, as Rogers argues, they are willing to use. In this sense, the emphasis is on the diffusion and penetration of the technology. We argue that this is a fundamental misconfiguration of how individuals may or may not define their relationships to the socio-technical systems around them. Instead, we advocate an approach that facilitates understanding the subtlety of these relationships with such technologies *in situ* to respondent’s daily practices and environments.

Nonetheless, iSociety has published one of the more recent incarnations of this kind of the ‘user as consumer’ approaches. Their research is based on a representative quantitative survey, and they have placed the British public into 3 attitudinal clusters regarding ICTs – enthusiasts, quiet pragmatists or aversives (Crabtree et al 2002: 20-30).¹¹ Although there are correlations between these attitudes and patterns of ICT ownership and use, Crabtree et al, like Rogers, emphasize that one does not dictate the other. Our research supports this and illustrates that looking at respondents’ technological identities, rather than attitudinal cluster, provides much fuller insights into how and why UT may or may not resonate with respondents.

However, despite whatever labels are used, such classifications (as attitudinal clusters) are limited because they are based on people’s consumption of ICTs, and as such provide a static technological snapshot that neglects the ongoing and often contradictory relationships people actively pursue with their technologies. For example, Justin outwardly takes a pragmatic approach towards ICTs thinly veiling a strong personal connection and keen interest in new technologies. Jill also appears to be easily classified as an enthusiast, yet her technological enthusiasm is strategic

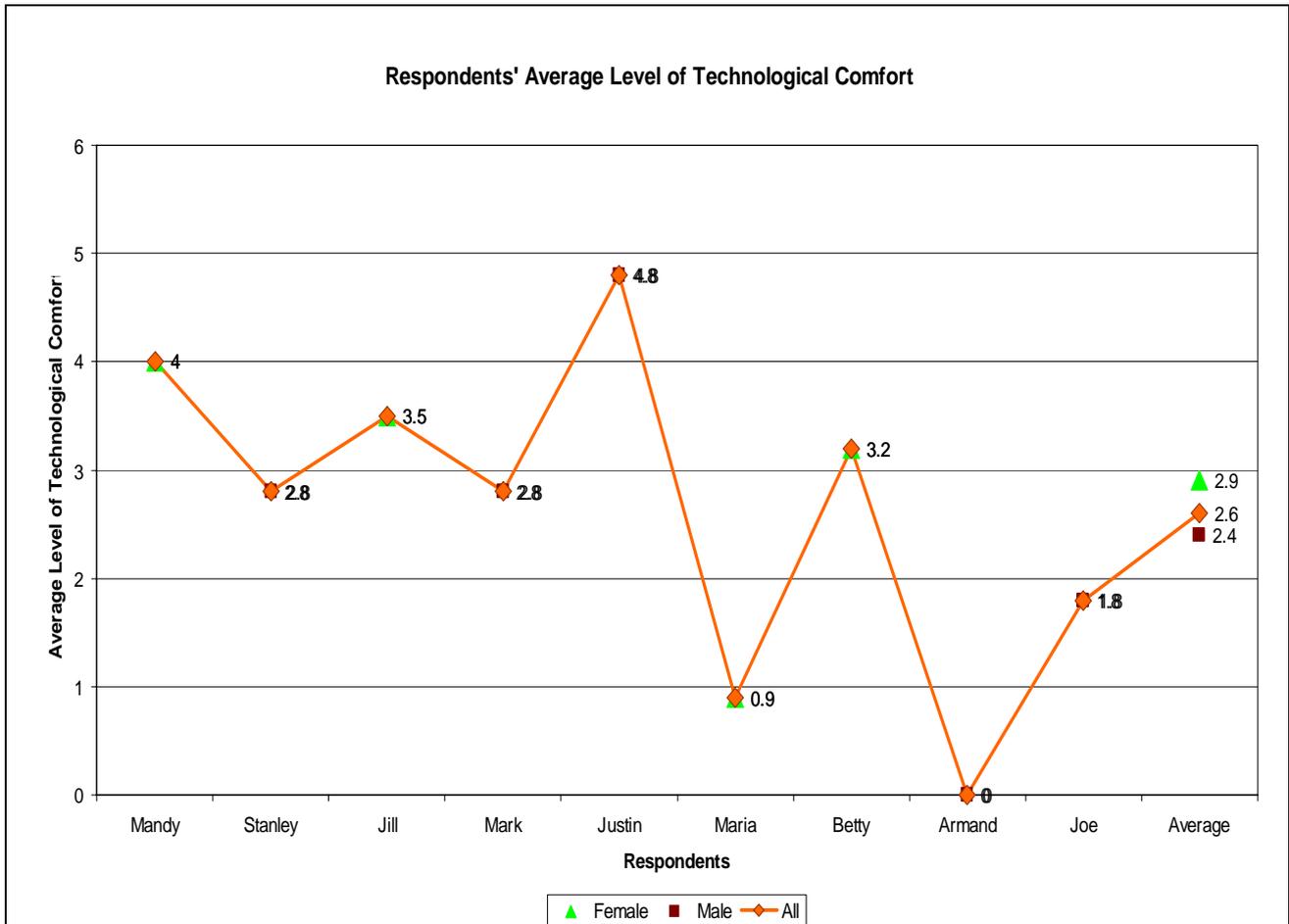
¹¹ Crabtree et al describe enthusiasts as “self-assured using technology, find it exciting, tend to like it for its own sake and seek out the latest gadgets. They see technology as important to their lives, are confident with the speed of change and see it as a generally positive force.... Enthusiasts’ consumption of ICT is driven as much by enjoyment as fun, as need” (2002: 26). Quiet pragmatists make up the majority of the population and “use ICT products in a practical manner, seeing them as tools to be picked up when needed and dropped when redundant. Their reactions are rational, rather than emotional and heated... their reaction to change is critical to the diffusion of ICT” (2002: 28). Aversives tend to have “lower levels of [technological] confidence, and react against a perceived culture of pervasive communication” frequently citing fear of change and the negative potential of ICTs to justify their attitudes (2002: 31).

as she quite passionately rejects other media such as television. On the other hand, Betty claims to strongly dislike communication technologies, but is an avid radio listener. Betty and Jill share similar reasons for forming very different relationships with ICTs, yet these similarities would be lost by looking only at their orientation towards ICTs. These three respondents experienced a strong connection to and excitement about UT. In contrast, Armand, Joe, Stanley and Mandy – in different ways and for dramatically different reasons – were not convinced of UT’s value regardless of whether or not they enjoyed the experience. Maria and Mark fell somewhere in the middle. Along these lines, The aversive/enthusiast model provides a useful preliminary schematic, but requires additional analysis in order to make sense of the wide range of interactions respondents have with ICTs and media.¹²

In this sense, ‘technological identity’ is meant to capture not only how and what people consume, but also what their communication technologies – including ICTs like the radio and the television in addition to computer and mobile technologies – mean to them on personal, social and functional levels. For example, the pre-interview survey asked what kinds of skills individuals had or wanted, how interested they were in technology generally and in specific applications – all of which were expanded upon in the interviews. The aim of this phase of the interview was to determine what kinds of values respondents associated, ascribed or perceived in and through their ICTs and to understand how they valued their communication technologies. Although there is not enough space here to elaborate on each respondent’s technological identity, Appendix C (particularly table 5) provides an overview of how respondents self-identified their specific skills and familiarity with certain tasks. We have labelled this “levels of technological comfort” because it is not just about respondents’ skills and abilities; it is also about their experiences and extended relationship with their ICTs. Figure 3 (pg 23) shows the average of each respondent’s self-identified level of comfort with tasks like setting up electronic equipment, installing a new computer program or personalizing their mobile phones.

¹² We have chosen to use iSociety’s classification as a basic schematic because unlike Rogers,’ their terms are less loaded with assumptions that technological development is equivalent to progress (as implied by terms like “laggard”). However, it is important to note that iSociety appears to have developed their classifications from conceptually similar pre-existing frameworks, and this language conveys an innate techno-optimism worthy of challenging.

Figure 3: Respondent's Average Level of Technological Comfort



Legend for Levels of Comfort¹³

Value	Description
0	I'm not sure what that is OR this question is not applicable because I don't have it
1	Very uncomfortable, I hate doing that kind of thing
2	A little uncomfortable, I don't like doing that kind of thing, but even if it takes me ages, I'll eventually get through it
3	Reasonably comfortable, it's ok, if I run into trouble I know where to go for help
4	Pretty comfortable, I've done that enough times to know the basic routine
5	Very comfortable, I could do it in my sleep / I know them inside out

One of the interesting things about the above responses is not only the breadth of responses but also how these responses relate to each respondent's attitudinal position.¹⁴ Justin and Armand provide an excellent example of two opposing

¹³ The scale used here is indicative only. It was attached to a series of statements and questions about particular tasks (e.g. How comfortable are you with defragmenting your hard drive or How comfortable are you setting up a new stereo system). As such, this scale was useful for introducing how respondents saw their relationship with not just computing technologies, but a range of media and ICTs – which was further developed in the interviews.

¹⁴ However, both Maria and Armand's low levels of technological comfort conform with the majority of their age group, which is 61 and 60 respectively. In contrast, Joe, the youngest

extremes. Justin who scored an average of 4.8 when rating his levels of comfort with a variety of technologically based tasks, is a 43 year old gay male, and has worked in the IT industry for 15 years. Justin expressed a keen interest in the technical specifications and potential of location based sensing, is extremely comfortable with technologies, yet describes a superficially antagonistic relationship with ICTs (e.g. hates personal digital assistants (PDAs), is reserved about new ICTs and generally won't buy new gadgets). In this sense, his 'wait and see' attitude would mean Justin was one of the quiet pragmatists. Despite this, Justin surprisingly said that he would be the first in line when we reach the stage:

where you buy something and depending on who you are it will fit you. It will become part of you, eventually it will plug into you... I have no fear of it at all. As far as I'm concerned it is functional. And it is far too slow. I want it in here [gestures to his head]....

When prompted about why he wanted "it" in his head, Justin replied:

Because my head is me, the organic part of me. But I would be quite happy to have part of me attached to me or implanted in me that enabled me to [immediately] access things that are not part of me....

[...]

Interviewer: It seems like you want this to give you superpowers?

J: No. Life is finite. There are only 24 hours in the day and we have to sleep for 8 of them and we have to relax for some of it, so no one can be anything and everything at any one time, you can only be what the amount of life you have will let you be. That's why some people are doctors and some people can't even conceive of it. Some people are employed and some people are not... Technology has to allow you to become fluidic within that. To be able to access the knowledge that the – I'm going to call it the database – of human experience and human knowledge so that you can do the Matrix thing and plug in. It sounds a bit out there maybe, but I actually hope it comes.

Justin, if given the choice, would become a cyborg. Thus, his quasi-pragmatic approach lies on the surface of a deep attachment to and intimate relationship not so much with ICTs, but with the potential he sees in them to improve his life. Justin's pragmatism appears to emerge from a disappointment with current ICTs to manifest their potential. See Table 1 (pg. 25) for an overview of the comparison between average level of technological comfort and attitudinal cluster.

respondent, does not fit with the pattern of high ICT consumption associated with young people as he is not only the third lowest score, but is generally disdainful of ICTs and new technologies. Additionally, our respondents do reverse the gendered pattern of ICT use where men are frequently observed as both more advanced and actively engaged with new technologies – as illustrated by the women's higher average. Of course, these are not representative results.

Table 1: Average Level of Technological Comfort and Attitudinal Cluster

Attitudinal Cluster	Name	Average
"Enthusiasts"	Jill	3.5
"Pragmatists"	Justin	4.8
	Mandy	4
	Stanley	2.8
	Mark	2.8
Pragmatist / Aversive	Maria	0.9
"Aversives"	Betty	3.2
	Joe	1.8
	Armand	0

In contrast, Armand is at the opposite end of the scale, consistently answering "I'm not sure what this is OR this is not applicable because I don't have it". In fact, Armand is one of the British population's 15% without a mobile phone (Crabtree et al. 2002). Armand, a 60 year old father of four, lives in Essex and commutes to Bloomsbury to work as a security guard and reception clerk. Although, Armand has used his wife's mobile phone "once or twice," he does not have his own and as a result, has had very little contact with them. Armand owns a computer, but like his wife's mobile phone, he knows very little about it, and wasn't sure if it was connected to the internet. Armand's preferred ICT was the telephone, and he was intrigued by the fax machine and enjoys listening to the radio, but held no interest in the internet, texting, e-mail, digital radio, cameras or other new communication technologies.

Yet despite this lack of interest, Armand was not your typical 'aversive' as he appeared to be quite open about new technologies, alternating between a very matter-of-fact view of ICTs and repeatedly asserting that technologies could be "wonderful things." Despite the lack of interest in many digital technologies, Armand at times talked almost wistfully about wanting to know and learn about new media, and at other times he was exceptionally practical. Armand talked about his current relationship to ICTs pragmatically. However, the following interview segment about the automation of Armand's previous career reveals stronger negative feelings towards ICTs:

A: It [his messenger job] was automated ... And I told myself that it was time to go. I didn't want to do much with new technology so to speak. I started at the bank 22 years ago and it wasn't up to what I do or what the bank does, it was time to go. You've got to be pragmatic about it.
[...]

Interviewer: What kinds of technologies did they bring in?
A: They had this stupid computer where you had to send letters, where the couriers, you had to courier the letter and then, because if you weren't accurate then you had to check proper spelling and there was lots of buttons, that's why, you know, I'm sort of allergic to buttons. I'm quite happy with what I do, quite happy. I just – when it came to technology it seemed to have to push more. The dealers, the money people, they have every computer in the world – the traders. They have to go through legal mail, because it's part of their job. Everything, the numbers, and I don't know how to make sense of everything. All of them, I don't know how to do that together, all of the pieces of paper.

All in all, Armand's relationship to ICTs is layered with resistance and as the quote above illustrates some resentment, which surfaced only after 3 hours of interviewing and much prompting. In some ways, Armand's views are present in all of the attitudinal clusters, although his total lack of interaction with computers and mobiles (despite owning one of each) suggests that he employs a strategy of total avoidance in order to mask an underlying aversion. For Armand, "being allergic to buttons" means he takes personal responsibility for how the technology did or did not work. In contrast, Justin has an external locus of control blaming the technology. This may not wholly account for the difference in their attitudes, but it illustrates some of the perceptions of ICTs that may perpetuate each of their attitudes.

Perhaps it is due to the nature of his work (as security and reception), his age and his socio-economic demographic, but Armand maintains his social and occupational networks without the inconveniences of unfamiliar or inconvenient 'buttons.' In contrast, Justin (and Jill as discussed below) actively maintain wide social networks through a number of ICTs (i.e. text, e-mail and mobile phone). Lastly, Armand is unique in our sample because his employment and everyday practices do not involve computers or new technologies of any sort, in stark contrast to those who work with or use computers everyday.¹⁵ Despite this difference, Armand was not the only respondent who created shallow pockets (see Figure 9: Justin's Thread). Although in Armand's case these threads indicate discomfort with UT, most of Justin's threads have less than 10 words even though he was very excited about UT's potentialities.

Betty was also an atypical aversive. Although she classified herself as technologically fluent and quite comfortable with ICTs, she regarded computers, e-

¹⁵ For example, Stanley the labourer and Mark the nurse may appear to require the least interaction with new media. However, Stanley is employed as a labourer but does this to support his work as a musician which requires regular development of web-sites, graphic design programs, sound systems and recording devices. In this sense, Stanley has regular contact with new technologies. Mark is required to update patient files at work, and as such regularly uses computers at work, but only occasionally uses a computer recreationally.

mail and mobile phones as largely invasive technologies, although extremely important in her life:

Yeah it's funny because I don't like technology, I don't get kind of fetishy about it. Same when I buy a new computer or whatever, I hope that it plays, that's my priority.... I think you have to [have ICTs]. I think as a kind of copywriter, researcher, you know whatever it is that I am, I would be unemployable if I didn't... To be honest given a choice, I may well choose not to... You know I didn't like it, I never liked it from the start.

And later, when Betty describes her reasons for personalizing her phone and her "machine," she also reveals exactly what it is that she doesn't like about new technologies:

But with my machine [lap-top], it's much more, I mean it's kind of my enemy, you know and so it's to make it less unpleasant really. I hate times new roman, I hate the colours, I don't want that in my life. So you can just imagine, I'm just making it slightly more usable.... I just think there's something really unaesthetic about it. My favourite kind of communication things that I have are journals stuffed with pictures and I love writing and I just think that it's really unaesthetic. I think they're ugly and I get panicky that I'm wasting my life in it, in that screen, in that television, or on-line. It's like there's something inauthentic about it.

Regardless of this distance, Betty had a close relationship with her computer, particularly for her own writing (rather than only her work as a copywriter) and is an avid radio listener, tuning in for several hours a day. Betty explained her interest in the radio, first because the radio gave her social currency. Second, because she was physically mobile and felt free while listening to the radio. In this sense, Betty wanted the freedom to move around the room, look where she wanted to look while still being capable of paying attention to the radio. She resented the physical confinement to a desk or chair imposed by the television or computer screen and keyboard. Lastly, perhaps as expected from a writer, Betty was very keen on hand-writing letters for personal communication. However, her reasons for keeping distance between her and her machine, was the lack of aesthetic appeal. For Betty, the interface was inexorably disappointing because it could never convey the same implicit tactile things as old books and textured paper of hand-written letters.

Perhaps more easily classified as an 'enthusiast,' Jill also held a unique relationship to ICTs. Jill proclaimed a fascination with technological 'gadgets,' and also had a genuine interest in ICTs because they occupied an extremely central role in Jill's life. As she stated herself, "They're vital to my daily living. They are. Absolutely. One hundred percent, I'd be lost without it, especially without e-mail." For Jill, e-mail was

the primary means of communication with friends and family back home, and these relationships were more influential than her immediate relationships in London. For Jill, communication technologies provided a kind of umbilical cord to the familiar territories and communities of home. As a stranger to London, ICTs were one of the few links to a place where she wasn't a stranger.¹⁶ Lastly, Jill repeatedly brought up the sense of control inspired by new ICTs. Particularly control over herself, by being able to edit her words, respond when she wanted to, and to what she wanted to. However, when asked about her least favourite ICT, Jill passionately described her reservations and open hostility towards television:

You just get sitcoms and why you want to buy stuff and it's a nightmare. It's a drug... It's such a passive [pause], it makes you a recipient of information and it can deaden you to certain things like eve for example, the picture of Saddam's sons on TV. I just saw two dead bodies, real dead bodies on television and it's a matter of course. It's a really weird experience to see that and not react to that, and maybe it's because there's dead bodies in movies... but it's weird.... I don't know... My reaction to watching these two guys is really different from my normal reaction to watching television and that's what I don't like about television. I don't like the fact that information that is important and god knows how good it is, is right next to 'Changing Rooms.'

For Jill, television meant exposure to images, information and juxtapositions that she is unable to control, regulate or monitor. Like Betty, loss of control is a significant element influencing Jill's comfort and affinity with ICTs. In contrast, e-mail, texting and mobile phones offered ways of communicating with existing important networks and enabled Jill to make the decisions about what information, which images and how they would (or would not) be juxtaposed.

These findings indicate that like people have complex relationships (like all relationships) with the communication technologies in their lives, relationships that are not always consistent and cannot be defined by single catchphrases. Although there is not enough space here to explore every respondent's technological identity, they range from the neo-luddite to the wanna-be cyborg. Yet, each of these identities is neither static or fixed, and frequently contain contradicting feelings about and perceptions of ICTs. Unsurprisingly, these identities influence and are influenced by each respondent's social, economic, geographical and cultural context. It is apparent that attitudinal cluster was not an accurate predictor of how each respondent would

¹⁶ The keenest illustration of the power of this connection occurred when her casual description of how much she would like video phones because then she "could sit down at the family dinner table and have a family dinner" was suddenly interrupted by a bout of tearful homesickness.

react to UUT. However, exploring each respondent's technological identity provides interesting insights regarding why some respondents liked UT, why some didn't and regardless of the response to UT, why they would or would not use it. These findings are discussed further in the usability section 4. Communicating Place.

For an overview of each respondent's technological identity, see table 6, Appendix C. For this project, these identities provide important contextual cues for comparing respondents' reactions and engagements (or disengagements) with UT. For example, those who are excited about the possibilities of technology are likely to carry that excitement over to UT. In contrast, those like Armand and Joe, who reject or are sceptical about ICTs are also likely to reject UT. It is the purpose of this research to understand how people make sense of UT and of the places around them. The key features defining the relationships our respondents had with ICTs are the importance of control (or lack of it), socio-cultural contexts, expectation management, external or internal locus of control, and personal aesthetics.

In the following section, we will examine some of the key elements of place and space and theories of everyday life, the significance of UT in terms of social or embedded knowledge and outline how and why users negotiated boundaries.

2. Place, Public Authoring and the Negotiation of Boundaries

Space is nothing but the inscription of time in the world, spaces are the realisations, inscriptions in the simultaneity of the external world of a series of times, the rhythms of the city, the rhythms of the urban population ...the city will only be rethought and reconstructed on its current ruins when we have properly understood that the city is the deployment of time ...of those who are its inhabitants (Lefebvre 1967: 10 as cited in Shields 1999: 156-7).

People do not ordinarily think of the city as a repository of old customs, traditions and folkways as they do of the countryside and village (Kearns 1994: 22).

Drawing from the first quotation, we can infer that the city can not exist without its occupants, that the angles and contours of urban space can only become meaningful through the often unnoticed accumulation of its occupants' spatial practices and pathways. Michel de Certeau distinguishes between space and place, a distinction that actively positions the role of the passer-by and the inhabitant in defining the forms of place or space. For him, space is

composed of mobile elements. Space occurs as the effect produced by the operations that orient it, situate it, temporalize it, and make it function in a polyvalent unity of conflictual programs. On this view, in relation to place, space is like the word when it is spoken In short, *space is a practiced place*. Thus the street geometrically defined by urban planning is transformed into a space by walkers. In the same way, an act of reading is the space produced by the practice of a particular place: a written text, i.e. a place constituted by a system of signs (1984: 117).

A 'place' in contrast, refers to the order of things in specific locations or as de Certeau states, "the instantaneous configuration of positions. It implies an indication of stability" (1984: 117). This distinction is interesting because de Certeau is suggesting that space is the utterance of place, and is defined by whatever objects symbolically or materially organize that location. A place, on the other hand, is organized by specific relational rules. Place is the syntax and the grammar while, space is the vocabulary at the moment of speaking. Despite the many tensions between place and space, the relevant implication here is that the act of telling a story about a space, means transforming it into a place. In this sense, public authoring – the process of creating stories in locations – is about placing oneself in space and as a result, transforming that relational, locational order of things into a place. Theoretically then, UT is about transforming abstractions into practices.

As Kearns reminds us (opening quotation), these practices and processes are not always immediately visible, yet the dynamics between strangers and neighbours, between the familiar and the foreign, continue to make up the everyday traffic of urban space. UT is unique not only because it aims to capture the social and cultural genealogy of the street corner, the doorway, the nooks and crannies, and the ephemera of the city, but also because it facilitates the personal ordering of those spaces. In this way, UT offers a way to challenge the forgetfulness of place, the disappearance of 'customs, traditions and folkways' into familiarity – and aims to translate the invisibility of these things for those using the system. In this sense, UT facilitates memory, association and connotation – all of which are experiences that theoretically, would enrich one's relationships to and with local places. Yet, the question remains, does public authoring actually do these things for those using UT?

There were several themes emerging from the ways informants responded to UT, such as the marking of boundaries and rather surprisingly, the introduction of personal aesthetics through UT. Thus, this section will cover three topics. We will first, expand upon public authoring, as a unique 'user-enabled' platform. Second, we address the kinds of boundaries informants created, particularly in relation to their

understandings of Bloomsbury. Lastly, one of the interesting observations emerging from this research is that UT is about aesthetics, and the customization of space. The implications of this are discussed below.

Public Authoring: Views from Somewhere

In principle, public authoring is not just a tool for engagement but also for critique, a tool not just for participation but also for control; for at the heart of a socio-geographical enterprise such as UT are questions of territory as well as community. Questions of power and conflict are as important as questions of order and membership. This research has sought to identify, through interviews and observation, the dynamics of an existing social space.

Figure 4: Map of All Respondents' Threads

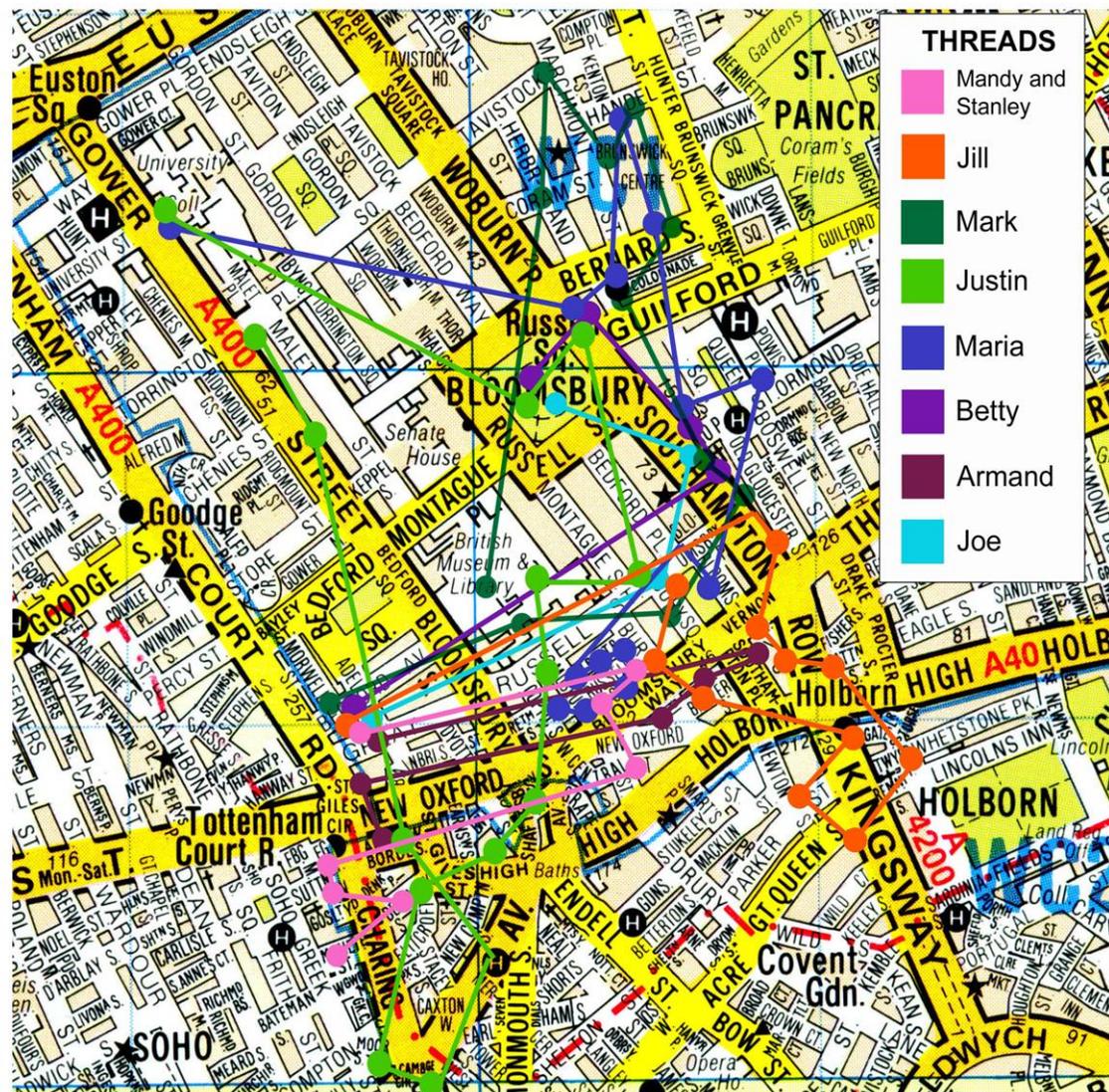


Figure 4 (pg. 31) maps the paths and pockets of seven individuals and one couple, exposing our respondent's trajectories and their points of interest along the way.¹⁷

Nick Couldry outlines one of the reasons why this kind of project is important:

The links between culture and place are complex, not automatic, and the very idea of 'the *place* of culture' needs to be questioned. Added to which, 'place' itself has been deconstructed by geographers such as Doreen Massey (1994, 1997). No place, she argues, is reducible to a simple narrative, a coherent set of meanings. Places are points where many influences, operating on many different scales (up to and including the global), intersect. Instead of a traditional notion of 'place' as bounded locality, we need 'a global sense of the local' (1997: 240) (Couldry 2000: 96).

So, this call for a 'global sense of the local' means understanding how people make sense of their local spaces. Invoking Donna Haraway, UT facilitates the capture and communication of 'views from somewhere,' which in this case, is grounded in Bloomsbury. In this sense, UT opens a methodological platform for exploring these questions. Previous uses of experimental ethnography aim to trouble "representativeness" and unpack notions of authorship. Similarly, the peer-to-peer location-based communication system aims to break down the barriers between producer and consumer, author and reader, entertainer and audience. Instead, public authoring theoretically places each of these hierarchical positions on a level playing field as users become co-creators of the system and its content.¹⁸ In other words, rather than a top-down, one-to-many platform with content conceived and designed by some invisible producer, public authoring calls upon users' and city

¹⁷ Gilles Deleuze and Felix Guattari's concept of the rhizome and lines of flight are two of the immediate theoretical associations sparked not just by this map, but by the very idea of public authoring, a fascinating link that will have to be explored elsewhere. There are a number of other theoretical concepts immediately reminiscent of Urban Tapestries, and the spatial practices of urban inhabitants. Some of these include Guy Debord's *dérive* (1958), the situationist practice of 'unitary urbanism' (1959), Georg Simmel's concept of the 'stranger' (1950), Walter Benjamin's vision of the city walker, the 'flâneur,' and finally, Greg Ulmer (2000) and Ioan Davies (2000) notions of the city as palimpsest. The theories behind these concepts are provocative, and although they are worthy of research, the connections between these ideas and UT need to remain on the agenda for future research.

¹⁸ It is important to note that links can and should be made with the history and practices of participatory media, such as fan zines, community radio and more recently, BBS's, blogging, Indymedia and other interactive forms of media. However, this is an area that must be developed in future work. Although it is important to note that blogging is perhaps most reminiscent of the public authoring framework. There is not room in this paper to explore this relationship, however for more information see Joichi Ito's 'Weblogs and Emergent Democracy' (http://joi.ito.com/static/emergent_democracy.html); Ralph Parfect's 2004 *London Blogging: Weblog Culture and Urban Lives* (URL: <http://www.hellsdexterities.co.uk/londonbloggingdraft.html>); and Rebecca Blood's *Weblogs: A History and Perspective* (URL: http://www.rebeccablood.net/essays/weblog_history.html).

dwellers' experiences and individual knowledges to create the content of the system (one of UT's major points of differentiation from other location based projects).¹⁹

However, one of the challenges of this research is to explore how public authoring enables these goals. A challenge complicated by at least 2 factors. First, who comes to the 'level playing field' provided by UT? Although we have concentrated on finding a diverse sample, it is clear that at this point, it is more inviting to some than others. For example, Maria said it was a hard concept to pick up on because "I didn't have any idea what it was. Even the name 'Urban Tapestries' was confusing." Thus, those with some kind of technological experience and higher levels of social and cultural capital appear to be more likely to be intrigued by and to use UT. Second, the prototype is not yet location sensitive, and as such, cannot process our respondents' pockets or threads. Frustratingly for designers, the device was not ready to support the interactive layering of pockets and threads envisioned through a peer-to-peer system. The situation meant that although people can author, what they wrote was not available publicly. We are, thus, more accurately exploring the concept of public authoring using a dummy system of static, pre-existing threads. Of course, during the ethnography, respondents were trained to use UT and were instructed about its technical limitations.

Nonetheless, it is clear that respondents used UT in order to negotiate boundaries and mark their territories, stake claims and identify their personal preferences. Although we will explore these issues in the following section, Appendix A shows the each respondent's pockets and threads.

Negotiating Boundaries: Knowledge and Personal Aesthetics

Spatial and social distance have been frequently conflated (c.f. Silverstone 2000) and with that conflation, a physical, social and/or psychological connection is assumed to accompany the technologically mediated 'triumph' over space (as experienced in the

¹⁹ Many location-based projects have been developed to help orient tourists in new environments and as an aid to the travel industry. A few examples include Virtual Tourist (a prototype offering themed tours in the WiFi zone covering Adelaide, Moretti 2003), and Pegasus (a pervasive city guide providing location based information, where individual trajectories can be shared with other users, SMIT 2003). Many location-based projects assume that users will be either an eTourist or eShopper (e.g. France Telecom), motivated to consume rather than produce or participate. However, in contrast to such top-down frameworks, there are a number of location based platforms emerging that aim to connect people to each other through place. Although some of these projects will be briefly discussed at the close of this paper, refer to Anne Galloway's 'Intimations of Everyday Life: Ubiquitous Computing and the City' for an overview of 5 of these kinds of projects (forthcoming 2004).

automobile, the telephone or the e-mail message). Although ICTs extend the scope of interaction and communication, social and spatial distance are not necessarily simultaneous or connected. It is notable, however, that UT aims to connect the spatial with the social – creating a number of individual and specific social localities that can be exchanged and shared across the system. For respondents, it was about carving out the spaces that held some kind of personal relevance or had some individualized meaning. In this sense, public authoring promotes a sense of control not only over users' territories, but also over their boundaries and their own role in those territories.²⁰

Boundary negotiation took place before hitting the streets. Six out of nine respondents asked where the boundaries of Bloomsbury were located. The interviewer kept these boundaries open, asking respondents to explain where they felt or believed the boundaries were. In response to the interviewer's question, "where are the boundaries for you?", Betty knowingly extended one of the official Bloomsbury boundaries so that it included an area she was familiar with. For Betty, her Bloomsbury neighbourhood reflected her social, emotional and locational (e.g. the places she'd lived, the shops she had visited etc.) relationships (see figure 12, Appendix C). In contrast, Maria, a long-term Bloomsbury resident, expressed concern about possibly transgressing those same boundaries, and spent considerable effort explaining a number of different ways Bloomsbury could be bounded; including the official, the frequently mistaken and also the most popularly placed boundaries. Unsurprisingly, this process also meant that Maria was asserting an extended sense of belonging – her knowledge of what is and is not Bloomsbury from multiple perspectives. In this sense, Maria was also deeply familiar with who belonged to which boundaries, and was more than a little cautious about breaking the rules

²⁰ Although at the time of this research, UT was not functionally interactive between users, the potential for peer-to-peer interaction, in some senses, challenge notions of belonging and community. The moment that primarily community based social knowledge is translated and rendered visible, the boundaries between communities are shifted and the 'threads' may not only stitch new communities together, but also trace who and what belongs (or doesn't belong) to a specific territory. UT facilitates exploration of how user innovation contributes to the negotiation and creation of community and knowledge based boundaries. These issues raise fascinating questions; however the technical limitations of the prototype confine this research to observing how people interact with the platform and UT as a set of public authoring tools. This research asks how people with a diverse range of backgrounds and histories interact with UT as individuals and the kinds of meanings people attach to urban spaces.

One of the pockets that Justin was most emphatic about relating to the interviewer was one he called 'the boundary,' in it he took two pictures of the area and wrote, "the boundary between Bloomsbury and Westminster and where three police divisions meet." Although this may not appear to be especially profound, Justin spent several minutes talking about the meeting point between police jurisdictions and council territories. For Justin, what was not Bloomsbury was also important. As we shall discuss in the 'social knowledge' section, another of Justin's pockets talked about his own history of cruising in Russell Square, before it was renovated, in part to prevent exactly those kinds of activities. This pocket is important however, because it identifies what Justin referred to as a significant phase of his life. In this sense, Justin's first pocket marks out the social territories he occupies, thus, the boundaries are not limited to geographic regions.

Although Mandy and Stanley were visitors, familiar strangers to Bloomsbury, one of the most distinctive features of their thread was the articulation of socio-cultural boundaries. For example, they were the only respondents to give their thread a name – "Mandy and Stan's Music Buff's Tour" (see figure 7 in Appendix C). One of Mandy's pockets shows a picture of a pub called the Bloomsbury and reads: "Once got pissed here with my brother but I don't recommend it as it's full of frustrated office workers." These pockets explicitly express who doesn't belong in their preferred version of the city, namely frustrated office workers and those not interested in music.

The point here is that the pathways and places respondents are drawn to reflect not only their knowledge of Bloomsbury, but also allows for the customization of place, by facilitating a kind of geographic aestheticization. For example, Figure 4 (the map of all respondents' threads) depicts the position of each respondent's thread. What is immediately apparent, excluding Jill and perhaps Joe's threads, is that respondents planned their threads ahead of time, systematically pursuing what appears to be jagged routes and sharp turns. Even Mandy and Stanley who as occasional visitors were not very familiar with the area followed a specific plan when creating their thread. Jill, however, the only tourist, the only real stranger to Bloomsbury in the group, followed a much softer route, appearing to be drawn to things that caught her interest as she passed them. Both instances illustrate a customization of place, which implicitly, or explicitly in Mandy and Stan's case, trace who and what belongs (or doesn't belong) to each customization – because in a sense, as Michael Bull argues, this kind of personalization indicates a claiming of territory akin to marking ownership (2000: 172-5).

Thus, in conclusion, the navigational tactics (e.g. structured or meandering) respondents engaged are reflected in the figure 4 (pg. 31). Although we can offer no conclusive analysis of public authoring, other than, noting that respondents engage public authoring as a way of personalizing the aesthetics of their surroundings,²¹ and marking some of their socio-geographic interests on the digital surface of the city. The UT team claims that public authoring offers the potential for “a community’s collective memory to grow organically, allowing ordinary citizens to embed social knowledge.” However, the kinds of social knowledge respondents chose to ‘embed’ and how, if at all, such knowledge relates to the collective is discussed in the following section.

3. Social Knowledge, Pockets and Social Currency

There is something intrinsic about UT that evokes the concept of social knowledge. This section introduces the concept of social and embedded knowledges, and then, analyzes the pockets informants created. Finally, how this kind of knowledge may effect social currency is considered.

Social Knowledge

Donna Haraway refers to the illusion of objectivity as “the god trick of seeing everything from nowhere” (1996: 253). In response to such myths of impartiality and objectivity, many feminists have placed an urgent call to concentrate on the immediate, on the embodied, on the meanings of personal preferences and their relationship to social conventions. Urban Tapestries translates social, or what Donna Haraway would call ‘embedded knowledge,’ into everyday life, in the form of place-based stories. By weaving these stories into a publicly accessible platform, UT

²¹ Although there is not room in this report to really explore this, the connection between control and aesthetics is drawing critical attention. In a new book on the relationships between aesthetic value and the ‘remaking of commerce, culture and consciousness’ (2003), Virginia Postrel posits that the appearances and aesthetic appeal of people, places and things is becoming increasingly connected to their economic value. Postrel poses an interesting argument, and one that highlights another application of how the process of aestheticization is really about exercising control.

provides a catalyst for other people to reveal their embedded knowledges and their 'views from somewhere.'²²

Embedded knowledges are important because in order to understand what is significant, we must recognize the cultural value and importance of that which is below the surface. For many feminist epistemologists, scientific practices and the exercise of dominant, hegemonic systems of power create an impenetrable surface masking and implicitly devaluing experiences that do not fit into the parameters defining that surface. In this sense, situated knowledge opens up public space and categories of knowledge, not only to achieve greater social and cultural inclusivity, but also to understand unrecognized vocabularies, marginal signs and the meaning of unfamiliar habits. As Donna Haraway so cogently argues:

Situated knowledges are about communities, not about isolated individuals. The only way to find a larger vision is to be somewhere in particular.... Its images are not the products of escape and transcendence of limits (the view from above) but the joining of partial views and halting voices into a collective subject position that promises a vision of the means of ongoing finite embodiment, of living within limits and contradictions - of views from somewhere (1996: 259).

UT provides the framework to store and communicate these tales, and rather than imposing a pre-determined relationship towards social spaces, users are encouraged to author their own patterns and spatial navigations. From a social science perspective, this framework provides a rich opportunity to examine how people create those patterns and generate spatial meanings across territories and communities (Shields 1999: 146). The pockets respondents created set out a series of textual and photographic data that is ideally situated for an analysis of what kinds of social knowledge respondents consider worthy of exchanging. We have suggested that pockets act as a vehicle for exchanging social and embedded knowledges. In the following section, we will examine the kinds of pockets respondents created and at what kinds of social knowledge they contained.

²² However, many feminists would quite rightly question who would use UT and contingently, whose embedded knowledges are likely to be shared. Drawing from 2004 Pew Internet and American Life demographics, upper-middle class white men are still the largest category of internet users (2004: http://www.pewinternet.org/trends/DemographicsofInternetUsers_12.20.04.htm). However, it is too early to tell if these internet use demographics would be reproduced through UT.

Pockets

Stories about places are makeshift things. They are composed of the world's debris (de Certeau 1984: 107).

This is a sort of knowledge that remains silent. Only hints of what is known but unrevealed are passed on 'just between you and me' (de Certeau 1984: 108).

As Michel de Certeau observes in the above quotations, social knowledge takes many forms, some of which may not appear to hold much meaning. For example, gossip has been dismissed as idle chatter. A view that ignores the rich array of social practices embedded in gossip (i.e. social exchange, interpersonal bonding and the regulation of individuals and communities). Following this observation, the pockets respondents produced may not always appear deep or meaningful. Armand's thread, for example, (see Appendix A, Figure 11) contains pockets like, "here we are at Sicilian Avenue. Interesting architecture" and pocket six includes two pictures of the Centre Point building and the text "And not far, we have the Centre Point building." All in all, this thread makes shallow inferences and observations, like "the book shop is below" (part of pocket 3) and "must have a long history" (part of pocket 4). In this way, Armand's pockets are superficial and do not engage, in any deep way, the historical or social relevance of Bloomsbury – or of Bloomsbury's personal, social or historical relevance to himself. For Armand, these pockets illustrate abstract spaces, defined only by their characteristics, and not by an articulation of how those characteristics are personally or socially ordered. But before dismissing these pockets, there are several ways of interpreting what they may signify.

First, Armand commutes to Bloomsbury from a London suburb. One of the themes emerging from the experimental ethnography was that many respondents feel completely divorced from the areas they work in. They go to whatever area they work in, enter their place of work, do their jobs and then go home. In this way, areas of work are a kind of 'flat space' holding little personal value, acting as a pit stop between places of real value, such as the home, the neighbourhood and the local pub.²³ Second, Armand was suspicious of the corporations involved in Urban Tapestries (i.e. Orange, France Telecom) and the team's other partners. After the interview, he voiced concerns about the exploitation of not just his but other respondents' ideas by corporate partners. In this sense, his pockets can be

²³ Although this is certainly an interesting finding, particularly in relation to UT's potential applications and relevance, it is a finding worthy of development elsewhere due to space limitations.

understood as an act of resistance where he consciously chose not to reveal anything that may be of personal importance. Third, Armand’s pockets, at least partially, reflect Armand’s “allergy to buttons.” Armand did not really have any interest in using UT in any other context, and went so far as to say that “he wasn’t really a really camera person,” inferring that if he was, he might use UT – but since he wasn’t, he never would. Finally, the pockets may be just what they are, and for Armand, these are the kinds of makeshift stories he associates with Bloomsbury.

Our respondents created a total of 70 pockets, took 83 pictures. For a brief overview of the kinds of pockets they created, see table two (below). For the original threads, pockets and photographs see Appendix A.1.

Table 2: Distribution of Pocket Types

Respondent Name	Recommendations (good or bad) [10]	Personal experiences (I was here, I did this, this reminds me of) [13]	Information (this place is) [16]	Speculations (questions, fiction, maybes and what ifs) [3]	History [6]	Observations and Descriptions [21]	Total
Mandy and Stanley	3	4	1	-	-	1	9
Jill	-	6	-	3	-	2	11
Mark	3	1	-	-	1	6	11
Justin	-	1	7	-	2	4	14
Maria	3	-	4	-	1	5	13
Betty	-	-	-	-	2	2	4
Armand	-	-	5	-	-	-	5
Joe	1	1	-	-	-	1	3
TOTAL	10	13	17	3	6	21	70

In some ways it is difficult to classify the kinds of pockets produced, because in some cases the distinctions are subtle and the overlap is considerable. In other ways, it is very easy to classify key differences. Michel de Certeau makes a distinction between two kinds of spatial descriptions, namely the map and the tour. The map involves basic instructional details about space (i.e. “The girl’s room is next to the kitchen,” 1984: 118). In contrast, the ‘tour’ involves “operational” details (i.e. “You come in through a low door,” 1984:118). Although this distinction is not entirely useful for thinking about the pockets UT respondents made, it is useful for distinguishing between the level of details that are included. Many of the pockets seemed to be devoid of descriptive words, a marked lack of verbs. To complicate this distinction further, Justin enthusiastically described a ‘tour’ through his Bloomsbury in the

interview, many of his pockets reflect a far more instructional map (e.g. showing a picture and a three or four word description like “Tin Pan Alley” – pocket 9, or “The Gay Village” – pocket 10).

It was also surprising, how few “I” stories people created. Almost all of Jill’s pockets (9/11) contained the word “I” or “my” and as a result, her thread has a very personal feel – as if we were invited to explore her thoughts, her curiosities and her experiences. However, her thread is in many ways unique amongst the other respondents. Mandy and Stanley, on the other hand, only had three pockets (out of 9) with the pro-noun “I,” “my” or “we.” Interestingly enough, Mandy and Stan were the only respondents to include a title, even taking a picture of themselves to claim it as their very own. In this way, it was very personal despite the shortage of self referents, mapping 6 places that had positive or negative value for them. In this way, in addition to creating their thread for an exclusive audience, Mandy and Stanley clearly marked parts of Bloomsbury as their own territory.

Betty and Maria have produced rich threads, replete with detailed information about the areas they live in, reminiscent of de Certeau’s use of the ‘tour.’ Interestingly enough, both of them are Bloomsbury residents, for 7 and 30 years respectively. Despite this richness, their pockets contained no self-referents. Instead, the quality of their pockets was similar to that of a tour. Betty (who had fewer, although longer pockets) organized a lackadaisical, thoughtful tour, where as Maria was a little more hurried, but sure to show a number of her favourite places. These were not so much personal threads, rather they were exploratory and informative concentrating on places she found friendly or interesting. Betty’s thread was particularly rich in detail, and she had the longest pockets of the group.

Mark’s thread was also low in self-referents (4/12), but his pockets contained lots of different kinds of information, switching from little stories to point form notes in order to get as much information across as possible. Mark also created a private message to a friend of his, presumably also on the system (pocket 4, figure 7). Similarly, Jill asked a question about the history of a street, and while explaining it to the interviewer, mentioned that she hoped it would get answered on UT. This is rather amazing, because both Mark and Jill created pockets dependent upon the public authoring platform, even though it wasn’t actually there. Arguably, this is a clear sign of one of the ways that UT succeeded in inspiring their imaginations.

There are two remaining things worthy of discussion. First, Joe's thread contained no pictures (other than the map) because he "forgot" to use the camera. Although this may be a convenient excuse, it perhaps demonstrates the inconvenience of the technology. Despite this, Joe's pockets offer reflective descriptions of three places in Bloomsbury that hold some kind of meaning or memory for him. Thus, the apparent inconvenience of UT did not prevent him from engaging the neighbourhood. In Armand's interview, Armand also expressed that "he was not really a camera person." However, both Armand and Joe are sceptical about a range of ICTs, and while these reluctances may merely be reflections of that, it is important to recognize that the multi-media platform may be unwieldy for some.

Second, there were a surprising number of commercial recommendations, (i.e. "this place is great," or "DO NOT eat here"). In light of many recent theories positing that the dominant mode of interacting with the public, with society is as a consumer (c.f. Featherstone 1990). However, recommendations also connote e-Bay, Amazon.com, Friendster and a number of organizations and business running on peer based referral systems. Regardless of why this kind of information is or is not valuable, it does suggest at least three things.

First, that there may be a powerful source of social currency here,²⁴ which is an interesting possibility, because UT does call into question how social interaction and connectivity can and will progress. In other words, if UT enables connectivity to locale, to your community and to other UT users, what can it do for the social cohesion and connectivity? As we mentioned at the close of the last section, it appears that this kind of negotiation of shared places, does at the very least, articulate if not develop collective memory and collective experience.

Another connotation of this kind of recommendation system includes the relation other kinds of referral systems may have. This is interesting for two reasons. First, it may mean a promising future for UT. Second, it highlights the value of what's in the pockets. Going back to notions of gossip and personal recommendations, UT is a potentially powerful vehicle for the exchange of this kind of social currency.

²⁴ However, Joe, Armand and Mandy and Stan would likely object to this, arguing that these kinds of systems are invasive, irrelevant and personally offensive.

Third, such referrals may indicate that respondents are 'stuck' in consumer patterns of behaviour and struggle to imagine social interactions or public behaviour outside of consuming something or making exchanges.

However, these are issues that need to be considered again, further into UT's development. In the interim, the following section explores 2 areas. The broader scope of connectivity as seen in the conceptual lineage of UT like projects such as unitary urbanism, derive and situationist thinking are introduced in the next section. This conceptual lineage is important for unpacking issues around connectivity in order to understand the social costs, opportunities and usability issues attached to UT.

4. The Social Costs and Opportunities of UT

Lastly, our fourth cluster of findings addresses the social costs and opportunities associated with UT in two ways. We do this by first exploring what might be considered part of the conceptual history of UT, namely, the situationist practices of 'derivé' and 'unitary urbanism.' These practices provide a useful starting point because they contribute to an unpacking of connectivity beyond issues of usability. We do this, secondly, by assessing respondents' perceptions of UT. It is in some ways, not surprising that more than half of the participants said they would be unwilling to use UT on their own time and in their own spaces. Despite this reluctance however, all but one of the respondents expressed an enjoyment of the experience. Aside from the nascent state of the prototype, some of the key barriers included cost, social context, interest, control and connectivity. Some of the primary opportunities also feature control and connectivity, in addition to the prospect of social exchange, play and finally, the significance of place.

Everyday Life, Connectivity and Control

Everyday life, the largely taken-for-granted world that remains clandestine, yet constitutes what Lefebvre calls the 'common ground' or 'connective tissue' of all conceivable human thoughts and activities.... The everyday is where we develop our manifold capacities, both in an individual and collective sense, and become fully integrated and truly *human* persons (Gardiner 2000: 2).

Every story is a travel story – a spatial practice. For this reason, spatial practices concern everyday tactics, are part of them, from the alphabet of spatial

indications (“It’s to the right,” “Take a left”), the beginning of a story the rest of which is written by footsteps, to the daily “news” (“Guess who I met at the bakery?”)... These narrated adventures, simultaneously producing geographies of actions and drifting into the commonplaces of an order, do not merely constitute a ‘supplement’ to pedestrian enunciations and rhetorics. They are not satisfied with displacing the latter and transposing them into the field of language. In reality, they organize walks. They make the journey, before or during the time the feet perform it” (de Certeau 1984: 115-6).

‘Connective tissue’ is an important concept and one that appears to have a long cultural history. In this sense, UT is not a unique idea. There have been a number of conceptually similar attempts to map, explore and remember the socio-cultural histories of place in and through spatial practices and rituals. For example, Bruce Chatwin (1987) wrote a book about ‘songlines,’ the Australian aboriginal practice of using song to locate landmarks and resources, trace the paths of the gods who created world. These ‘songlines’ have inspired a recent project in New York of the same title. Jim Naureckas, its founder, says seeing the marks left by New York’s “own giants, heroes” is one of the driving inspirations behind his project (ND). Songlines is one of many similar projects aiming to disrupt conventionally ‘flat’ notions of place, space and urban communities. There are a number of current location-based, digital story-telling and new media projects working towards bringing out the rich histories lost in the ephemera of everyday traffic.²⁵

Additionally, the situationist practices of ‘*derivé*’ (Debord 1958) and ‘unitary urbanism’ (1959) illustrate that a fascination with “spatial practices,” as de Certeau describes above, are also significant elements of UT’s conceptual history. Both practices involve a “drifting” through the city, as a method of understanding the city not only through an experience of it, but also through the exchange of those experiences. In this sense, ‘*derivé*’ and especially unitary urbanism allowed the functional surface of the city to be lifted, opened up and out, revealing the psychogeographical unconscious (Debord 1958; Ross And Lefebvre 1983). These practices then are not just about place, but also aim to playfully deconstruct the abstractness of space, the rituals of place and ‘the geographies of action,’ and deepen the connections between people and the places they occupy.

²⁵ For example, some location-based projects (in addition to the e-tourist ones listed in an earlier footnote) GeoNotes (Espinoza et al, nd.), Moblogging (Greenfield 2003), Geographiti (Tuters 2002; Kainins 2002), Annotate Space (Moed 2001-2), Mobile Bristol (May and Stenton 2003), Neighbourhood Markup Language (Rokeby 2003), Murmur (a location based story-telling service accessed via mobile phones, based in Canada’s major cities, Micallef et al, 2003) and the list goes on. For example, ‘Capture Wales’ and Video Nation in some ways also belong to this genre as they are both major BBC public storytelling projects (Thumim 2004).

In terms of control, 'derivé' and 'unitary urbanism' employ alternative spatial practices, and for its practitioners, illustrate the importance of engaging the city outside of mainstream social expectations. In this sense, negotiating these kinds of geographies of action means taking control over the kind of relationship one can have with place, with peers and non-peers and one's position in the social order. However, like the UT team and those respondents who were excited about UT, situationists enjoyed the time they invested in 'drifting' and challenging conventional engagements with the city. Most of our respondents, even those with a deep scepticism of UT (like Mandy, Stanley, Maria, Joe and Mark), enjoyed the experience. However, this pleasure did not preclude a concern that the UT's potential for connectivity and control was risky. It was risky because although the public authoring framework invited a deeper connection with those around them, it could also invite an invasion and a loss of control over who and what could enter their sphere of attention. On this note, we present the social costs and opportunities respondents associated with UT.

Usability: Social Relations, Identity, Play and Place

I think anybody with an eye for imagination and something which can be tantalized upon will be investing in it.... I think it's a great idea. It's not just good for Bloomsbury, it's good for everywhere. I think it is 'living' blue plaques for the 21st Century. I really do. I just can't see it not working (Justin, 43, chief executive, Bloomsbury resident).

I can see it being a sort of novelty thing, but I can't really see any natural feel for it really. It seems to be lacking practicality. I can't understand why you'd need it [or how it offers] anything a guide couldn't. And would you really want to be walking around with such an expensive piece of equipment.... I just can't see why the average person would ever really need to use it (Mandy, 30, London journalist visiting Bloomsbury).

I just think the idea is so fantastic, I mean it comes along and you just don't know why it hasn't been invented yet. And it was understandable, I mean, it just made sense.... It is such a personal way of getting to know the city (Jill, 28, teacher and musician, tourist).

UT resonated with respondents in widely varying degrees. Mandy's view, that UT lacks practicality and a real purpose, for instance, provides a clear example of UT's failure to capture her imagination or make visible the relevance of her relationship to her urban landscape – and this failure is important because it highlights some of the social costs embedded in this application. For Mandy, observing the minutiae of every day life, especially the foundations, commonalities and the details of spatial

practices hold little relevance – not only are these taken for granted but for her, they're boring and inconsequential. As a young, single, working mother, Mandy has strict limitations on her finances, her attention and her time. These constraints arguably instil a strict sense of responsibility (at least when it comes to spending large amounts of money) that prioritizes functionality, usefulness and direct applicability to one's personal life. For Mandy, these needs were not met and in fact, UT increased her feeling of insecurity and perception of risk (e.g. "would you really want to carry such an expensive piece of equipment around").

Stanley was also highly critical of UT, when asked if he could see any of his friends using it, at least three sources of both Mandy and Stanley's reticence became apparent. Here is a segment from their interview:

S: But most people I know who might use it wouldn't be interested in what other people had to say about it [the area].

Interviewer: That's a fair point. The UT team is working on adjustable filters, so you can tailor what kinds of information you get –

S: I mean, if I was interested in architecture and I didn't know the area, I'd use it but I'm not sure if I'd be interested in what other people had to say about it.

M: I just don't see it being anything beyond tourism, which is not necessarily groundbreaking.... There doesn't really seem to be much that you couldn't get from a phone call or the internet.

[and a little bit later, Stanley says] I can't see my friends using this sort of thing. It's a really non-essential item and my friends are pretty skint, so I couldn't see them using it...

Stanley highlights cost, interest and social context as barriers to using UT, barriers that consistently arose in Maria, Armand and Joe's evaluations of UT. Mandy and Stanley are both part of a punk sub-culture with specialized interests, and as discussed in the previous section, their thread is composed of subtle boundaries maintaining these interests while actively clarifying who the outsiders might be. Part of the point Stanley makes clear is that public authoring is too general and its potential for general exchange and open connectivity is an unwanted burden. Like picture messaging, whose success is still pending a final verdict, people are unlikely to want a technology unless they can share it with their peers and social networks. The same applies to UT, particularly for two people whose social networks are highly critical of mainstream values, politics and patterns of consumption. Although this is part of the issue for Stanley, his primary concern is about controlling who he will or might be interacting with. However, Maria and Armand say that their communities are also unlikely to embrace new ICTs, albeit for different reasons, such as age rather than sub-cultural aesthetics.

Joe and Armand were particularly concerned about being exposed to unwanted information and as Joe stated, did not want to be bothered with “someone coming up to me on the street to tell me ‘did you know that one street down the road, I’ve been there.’” Although Joe and Armand were briefed on the filtering system being built into UT, the threat of losing control over who would interact with you, how much and what kind of information you would be exposed to and the risk of being flooded with beeps and irrelevant stories overshadowed any appeal UT might have held. For Joe, the cost is not limited to a lack of interest in other people’s observations and stories, but also the time it takes to sort through information, loss of control over his mental environment and the cost of personal space.

Lastly, despite their reservations, Mandy and Stanley enjoyed their experience with UT, returning breathless and talkative, eager to share their thread. However, when prompted about what exactly they found enjoyable, Mandy searches for words, eventually saying, “well, you know, I liked sharing with Stanley the places I’ve been around here.” For Mandy and Stanley, the technology was secondary, if anything, to the pleasure of sharing their experience.²⁶ This highlights one of the most important opportunities associated with UT – the potential for social exchange and as the UT team have worked towards – a deepening of the relationships between people, communities and the places they occupy.

In contrast, Justin’s hope for the potential of ICTs to introduce excitement and positive innovation is present in his assessment of UT. For him, UT offers a glimpse of the cyborg experience, an embryonic version of “the database,” the ‘matrix’. Jill is also excited by the idea, genuinely enjoying the connection to the city enabled by UT. Their experiences, like Mandy and Stanley as discussed above, highlight some of the similar opportunities introduced through UT. Although both Jill and Justin share a mostly optimistic vision of what ICTs are capable of and a keen appreciation for UT, their optimism is not necessarily what sparks these views. For example, one of the things making ICTs, like e-mail and texting, so attractive to Jill is her ability to control, edit and think about what she says, when she says it and who she decides to

²⁶ At this stage in the development of the technology, it is nearly impossible to evaluate how UT can be used between people who know each other. Mandy and Stanley provide an interesting example of how couples might use UT to share personal stories. Drawing from mobile phone data, the majority of mobile phone users use it to communicate with their partners (Crabtree et al 2002: 49-51). Although this may not be the original purpose of UT, it is an interesting possibility.

communicate with. UT also provides this sense of control over her environment, particularly as a stranger in a new landscape. When asked to elaborate on what she meant by 'it just made sense' (see opening quotation), Jill connects UT to her personal likes and dislikes:

If I take my personality, I love stories, but I am totally averse to going on a big tour, I don't want to be a tourist. For me the main use of this would be as a tour guide ... and I could use it in my own way, on my own time in a very discrete way. And it could be totally personalized, you could totally shut it up and that would allow you to hide it if you wanted.

Thus, Jill introduces control, not only over the communication but over the visibility of the device (and hence the visibility or invisibility of Jill's own actions), and to a certain degree, others' perceptions of her, of her potential relationship to place, and to the device itself (could be totally personalized).

Earlier, Jill introduced 'connection' as one of UT's advantages, when she talked about UT as a "personal way of getting to know the city." Although for Jill, this connection is between the user and city, there are two other kinds of connectivity enriched through UT, namely between the place and the person and also between the people sharing tapestries.

Creating a stronger connection to local places is an important social benefit that Betty, Maria and Mark also talked about. Maria, for example says "It's a very interesting exercise and it did remind me of how much Bloomsbury means to me and picking up the few little things that I did brings out what makes it so special." Here, UT has been successful because its key objectives – emphasizing the characteristics of urban spaces and bringing out the meanings those places hold for individuals – have been achieved.

One of the other aspects of UT's connectivity, is the relational connections it can potentially enable between urban occupants and users. However, the prototype was not yet capable of mapping links between users and places. ICT applications amplifying existing social networks, like Friendster, succeed because they are built from personal invitations from known sources. As Ian Morrison notes, "infiltrating trust networks, Friendster is a more insidious and effective self-replicator than any TV-advertised dating line" (2003: 15). Similarly, UT aims to facilitate the growth of place-based networks. The source may not always be known to users, but the optimistic implication is that this kind of connectivity is a good thing and will bring

urban occupants together in positive, social network forming ways. However, Mandy, Stanley, Armand and Joe reject this kind of connectivity, perceiving it as an unpleasant imposition, rather than a liberating exposure to new social vistas.²⁷

Finally, Mandy and Stanley identified UT as a 'non-essential' item. Betty offered another perspective, introducing the importance of play in the UT experience:

It's a great experience although it's a little self-indulgent in a sense, because you're taking a little longer thinking about the things you know and engaging memory. Like the information I got, I quite like, like the bit I did with you... Quite often I wonder what people are doing, and you could just open a pocket and they'll have told you. It seems like a recreational thing. It's kind of an adult toy isn't it?

Even the most sceptical Informants enjoyed their experiences using UT, including Armand, Joe, Mandy and Stanley. Betty's comment about UT raises the issue of play, the last theme emerging from informants' experiences. Play is an important element of social and cultural development. When children play they are experimenting, learning about social interaction and through their creativity, are figuring out their own identities and the boundaries between self and other, fantasy and reality (Winnicott in Silverstone 1999: 64). Play, as Silverstone has described elsewhere is connected to "the mechanics of culture as a process and as an achievement. Play is both a complex and a precarious achievement" (1999: 63). Thus, as discussed more extensively in the section on negotiating boundaries, UT is in some ways a toy. A toy that helps users make sense out their own locations, test their boundaries, solidify their connections to place and play with memories, fantasies in and through their spatial practices.

Yet despite this, only three respondents said they would use UT on their own. Jill would only use it if she could rent UT for short periods of time, addressing barriers

²⁷ Of course, this raises a number of issues relating to possible misuses and abuses of UT. Some examples might include the use of UT or UT like technology to spam users, to commercially manipulate users or the digital shadows they may leave, to lure users into traps where users may be mugged or molested, and/or to use such technologies to follow or harass other users. The UT team can not provide solutions to these problems, but in a way that is far more immediate than the internet, UT is firmly grounded within particular regions and any actions, posts or uses of UT are still governed by the social, economic and legal systems operating in those regions. In order to use UT, people must log into the system, providing a functional telephone number, address and other details, as one needs to submit when they sign up for a mobile phone contract. This information is confidential, unless laws are broken and individual rights have been abused. Another precaution against malicious or anti-social behaviours such as stalking includes the possibility of being anonymous to other users, so that strangers can not trace individuals.

like cost and personal investment. One of the implications about this is that respondents could not remove themselves from a consumer relationship with ICTs. In other words, respondents continually assessed UT, and their interactions in terms of its (non)viability as commercial product. Faced with this challenge, Mandy raised a cogent point, “why would I want to” [change that relationship]?

In closing, regardless of respondents’ assessment of UT as a potential product, UT provides an arguably innovative platform for exploring how people situate themselves in relation to their social, cultural and geographic environments; not only facilitating the communication of one’s personal (literally and metaphorically) positions to others but also making visible the fabric binding the urban collective together, spatially and socially. Respondents continually bring up connotations of memory, of multiple versions of connectivity, control – whether control over or controlled by – and finally of play. Those who were most critical of UT cited barriers like cost, risk, loss of control and lack of interest personally and for their social networks; whereas those who were more enthusiastic cited the increase of control, of connectivity, of exploration and of play to support their excitement.

Conclusion: Mapping Urban Experiences

A number of issues have emerged during the course of the research and in our account of it in this paper. Broadly speaking they concern the relationship between an individual, technology, social and cultural space and the possibilities for the enhancement of the quality of everyday life which many if not most technologies claim, but which few offer in any singular or uncontradictory sense. UT is a technology which embodies a whole range of possibilities, those that its designers have discussed and are attempting to facilitate in the design of the machine, and those too that they may not have envisaged clearly, if at all. These possibilities and their expectation are open and open-ended. Indeed it is the nature of UT, as of many of the latest generation of digital technologies, to provide ways of enhancing interactivity. Here it might be said that the ordinary sense of interactivity, that between persons, is being supplemented by a connectivity between person and space. Location is of its very essence.

We have framed the research in the following way. Technologies are social; their uses are conditional on the specificities of biography and culture; these need to be taken into account if we are meaningfully to understand the nature of socio-technical change. What we have found and suggested during the course of the study are a number of dimensions of this problematic of socio-technical change, dimensions which are particular to the affordances offered by UT.

Of these the following seem to be the most significant.

The first is the question of the contradictory and unstable relations that individuals have with their technologies. Everyday life is, albeit variably as our respondents have illustrated, dependent on a range of increasingly portable technologies that are both enabling and disabling of social interaction; that are both liberating and constraining. The 9 participants in our study vary in their uses of existing information and communication technologies as much as they vary in personality and social position. Those differences may or may not prove to be definitive in the context of the trajectory of a given technology. But they are unlikely to be irrelevant.

The second is the issue of identity. Marshall McLuhan famously described media technologies as extensions of ourselves. It was an idea which was both powerful and under-explored. Our research suggests how important such a notion is, and in what ways these extensions are, or can become, crucial parts of our identities, as projections of the self, as well as props and supports in our struggle to sustain ourselves as viable social beings. Relations to technologies, both old and new, are the product of past and present experiences and of the reflexivity that is a central component of modern life. The cyborg is a particular and extreme expression of identity as a socio-technical product; but all of our respondents have something of the cyborg in them. How much and how it is expressed is very much the issue. But understanding technology as a constituent of identity is key if we are to further an understanding of how such technologies as UT could develop, or indeed how indeed one might develop UT in the future.

Issues of identity are linked to issues of control. And control was a crucial dimension of the relationship that our respondents expected in engaging with UT. Vulnerability to a kind of urban spamming that might emerge, as unwanted and uncalled for texts appear in pockets and locations, was a regularly cited concern. Controlling technology is both a metaphor for, but also a material component of, the capacity to

construct boundaries around the self, to protect it and to define it in its integrity. Mobile telephony is both an extension of self and an intrusion. UT technology likewise. Its essential double-edge will need to be managed if it is to have a value in the enhancement of social life.

It is always difficult, if not impossible, for individuals condemned to the realities of the present to imagine what life with a new technology might be like, to envisage how something still undefined might be used, or useful. Our respondents are no different in this respect, though we believe our methodology has enabled us to enhance the meaningful possibilities of engaging with the future a little better than is often the case. Left to themselves, as it were, a number of them talked about UT as, possibly, an opportunity for play. And the idea of playing in and with the city appears, at least to some, attractive. Play is often an invisible component of everyday life. For adults it is often seen as something done in private. UT was seen as toy-like, and as such possibly marginal to the real issues of the everyday. But play is important to identity, and in a society so significantly mobilised around leisure, tourism, and indeed the kinds of self-expression that play enables, this need not be too much of a concern. There is play and playfulness; there is creativity, and there is through all of these an opportunity to contribute both to the self and to what we might call (though with significant reservations) community.

This leads to the final issue. The issue of place. UT is a technology that engages directly with space and place. It offers a way of fixing location, a kind of marking of the city with meaning. De Certeau has suggested that the city is meaningful only in the familiarity of our experience of it. We walk, and as we walk we make sense. Through the parallelism of both physical and symbolic movement we construct a significant and signifying urban space on and against the abstract and otherwise oppressive singularity of streets and buildings. UT is a way of marking that significance both for the individual and, in principal, for the collectivity – both the *ad hoc* collectivity of passing tourists and the more grounded collectivity of neighbourhood and community. In principal. For it would appear that the emergence of such shared and shareable textuality, invisibly but digitally engraved along the sidewalks of the city will require much more than spontaneity if it is to have any meaning. It will need an infrastructure of a project or design, and a kind of literacy, for otherwise, we might suggest, UT will only produce more noise, adding digitally to the already oppressive pollution of much of urban space.

The research reported here, then, suggests that technologies are never less than social. They emerge from social action, and they continue to be dependent on social action if they are to have any meaning or usefulness. And if there is a circularity in the logic – and indeed of course there is – we would maintain that it is a virtuous one. The participants in our study engaged seriously with the tasks that we set them; their engagement was perhaps speculative but still meaningful for them, and it was meaningful too, hopefully, for us in seeking to make sense of it. Such *sense* is *essential*, however partial and provisional, for an understanding of the present and future of UT.

In closing, it is important to consider the questions waiting to be asked next. It is clear from the research conducted in this report, that for most respondents, UT augmented their sense of connection to the places around them. Although UT aims to bring together neighbours and urban occupants, we have yet to discover if UT meets this aim. Thus the question for tomorrow is what influence, if any, does (or can) UT have on local models of social cohesion and social connectivity? Building on the concepts of social knowledge addressed in this paper, UT is an effective vehicle not only for capturing ephemeral forms of social knowledge, but also for exchanging it. The questions that remain are what happens to the threads that people produce? Are they exchanged, negotiated and shared? And lastly, what are the implications of the distribution or accumulation of what de Certeau would call ‘narrated actions’ and ‘geographies of actions’?

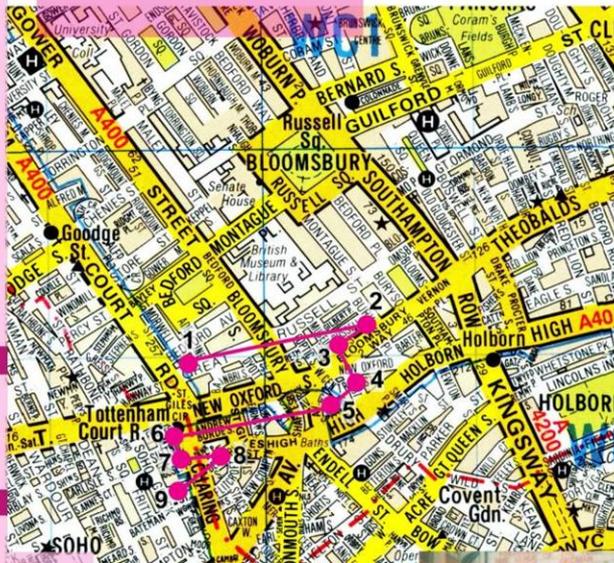
Appendix A: Respondent Threads and Pockets

Figure 5: Mandy and Stan's Thread

Interview 1: Individual Thread



Mandy and Stan's Music Buff's Tour



1: YMCA



2: Richer Sounds

The place to buy all your electronic stuff for DIRT cheap prices.



3: Tearooms - old school caf.

Only place in the west end where tea is still 40 p. Liver sausage sandwiches go for 80 p.



4: Terrorizer Office

Metal magazine headquarters. This is where I [Mandy] send my reviews of gigs and bands.



5: The Bloomsbury

Once got pissed here with my brother [Mandy] but I don't recommend it as it's full of frustrated office workers.



6: The Mean Fiddler

Saw Conflict [punk band] here last month. Expensive lager.



7: The Astoria

Good place for big gigs. Have seen tons of cool bands here.



8: Denmark Place

Loads of music shops. I bought my bass at Rose Morris.

9: CroBar

Cool rock bar that is open late. Sells budvar for £3 a bottle.

Figure 6: Jill's Thread

1: YMCA

2: Barclay's Bank

This is the bank machine that ate my card the day before I left London for home in 1993.



3: Sicilian Avenue

I always thought this was a cool spot. 'Hidden alleys' and 'secret' places are one of the best things about this city!



4: The Five Star Cafe

This is the 'HORRIBLE PLACE' I worked at for two months in 1993, at the age of 18. Stunned and lost, I thought having a job of any kind was great. I was wrong. DO NOT eat here...



5: Catton St. and Southampton Row

Old and new to the Nth degree. Nothing like this in Canada... A 1901 building and a 1980s store inside.



6: Twyford Place and Kingsway

My sister and brother and I had drinks here, right before they left. I miss them.



7: Great Queen St. and Kingsway

Starbucks. Hated these back home. But now they're a trigger for nostalgia.



8: Parker Street

This street also exists in Vancouver, I used to live there with my brother and his girlfriend. So many good times at Parker Street in Vancouver - this doesn't look nearly as fun.



9: Holborn Tube

This was my tube stop for two long months of my life, seems like such a different life now.



10: Barter Street

My brother says all the streets in this town tell something about their historical use. I wonder what went on here?



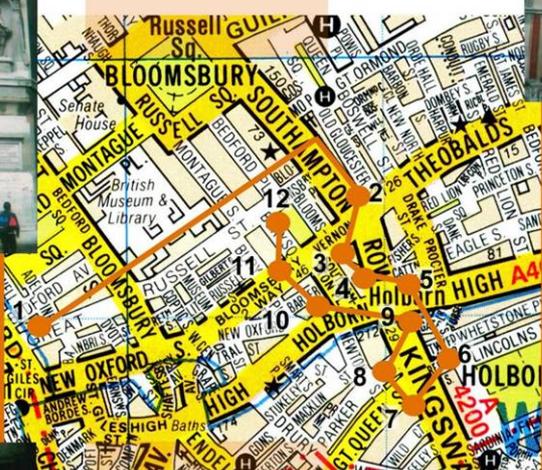
11: Bloomsbury Square

I want to live here! The middle one would be my bedroom.



12: Bloomsbury Square

I think they've rolled some hapless granny. Takes all kinds.



Interview 2:

Jill's Thread

Figure 7: Mark's Thread

Interview 3: Mark's Thread

1: YMCA

2: The British Museum

Airy and Echoey.
- Graceful architecture
- Very busy but not too busy



3: Bloomsbury

Grusome history relating to plague. Quite green and pleasant now. It's a big space. I've walked through here many times - not stopping to look. [No picture taken]

4: Bonnington Hotel

PRIVATE MESSAGE TO MARCUS

"Spurs 2, Arsenal 1. Watched the match here - and I bought all the beer!"
Points of interest - free niblets, spacious and air conditioned.



5: The Book Warehouse

Discount books, cards and CDs. Specialising oddly enough, in erotic photographs.

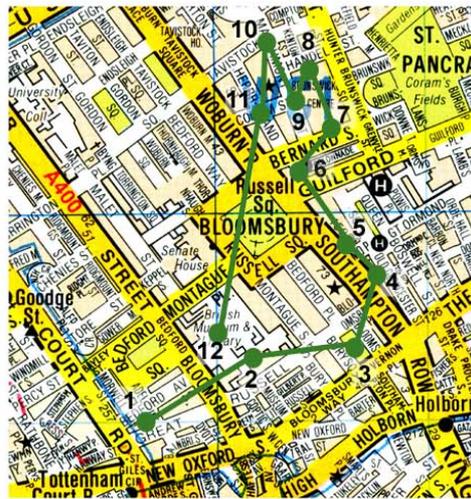
6: Russell Sq. Tube Station

- Piccadilly Line to Covent Garden and Leicester Square.
- Also, there is often a good and cheap fruit and veg stall here.



7: The Brunswick House

A huge grey scab of a shopping centre. Designed and built in the sixties, it was originally to be twice its present length, extending to the junction width. Makes me think of 'A Clockwork Orange.'



Brunswick Centre [no pocket].



8: The Renoir Cinema

Comfortable cinema with a cosy bar.
- Show world cinema and independent film.
- Very good place.



9: Brunswick Centre
Has its own squadron of Bloomsbury pigeons.

10: The Alara

Organic stuff... Really good buffet bar. Plus shop. Well worth a visit. Delicious fresh juices.



11: The Good Pub!

Michelle and Butland pub. Very cheap Bloomsbury boozers (by London standards) and has a smoke free area.



12: The British Museum (Library)

Strikingly beautiful place full of books! Slightly mysterious research area plus hidden books. I have had a meal at the restaurant overlooking the library space.



[Pocketless pic of Russell Square]



Figure 8: Justin's Thread

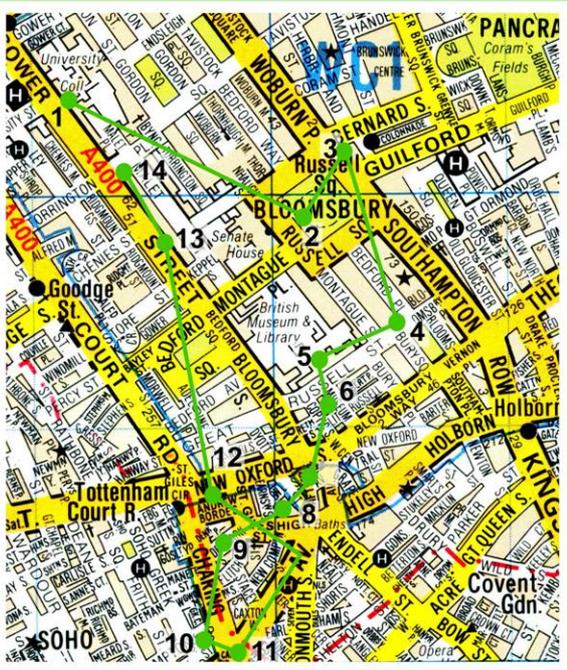
Interview 4: Justin's Thread

1: Cruciform Building, King's College



2: Russell Square

This has been a gay cruising ground since the early 20s. I used to cruise here when I was younger and have had some gr8 times. It's a shame they tore down the bushes! ;-)



11: "The Boundary"

Between Bloomsbury and Westminster and where three police divisions meet.



12: Centre Point Building and New Oxford St.

Bloomsbury and Westminster's icon and landmark.



3: Hotel Russell

This is where the buses leave to go to the airport. A gr8 old Victorian building.

4: Beautiful old Edwardian buildings, now offices!



5: The "BM"

[British Museum] Bloomsbury's icon.



6: The Oldest Pizza Express

in London, on Great Russell Street.



7: Shaftesbury

A beautiful view of Shaftesbury Avenue's trees.



8: St. Giles Church

In the fields. Is very, very old.



9: Denmark St.: "Tin Pan Alley."

10: Old Compton Street

The Gay Village.



13: "Waterstone's"

Beautiful building and where my partner works - UCL's bookshop.



14: Gower Street

This is where Charles Darwin lived.

Figure 9: Maria's Thread

**Interview 5:
Maria's Thread**

1: Cruciform Building, King's College



2: Russell Hotel, South Facing

No, not Italy! A whim of this Gothic Victorian hotel. A commanding presence in Russell Square.

3: Horse Hospital

The Colonnade off Guilford St.: Horse hospital and stabling in the 18th Cen.



4: Renoir Cinema, Brunswick Square

Best cinema in London. A gem in the ghastly concrete of Brunswick Square. All the best foreign films, old and new, are shown here.



5: Russell Sq. Tube

Recently restored to its former style and beautiful red tiles and ornate lighting.



6: Cosmo Place Studios

Craft shop with individual china engraved designs.



7: Mary Ward Centre
Adult Learning Centre. Wide ranging courses. Superb building. Note different skylight designs - a texture of Georgia architecture to personalize your home.



8: Bloomsbury Square

Old Liverpool insurance building in background - soon to be new commercial offices, restaurant and health club.



9: Pied Bull Court

Truckles wine bar - while away an hour or so on a balmy summer evening.



10: Luigi's Bury Place

Popular restaurant. Good place for local gossip!



11: London Review Bookshop

Busy place and a must for the discerning reader interested in new books.



12: Russell Chambers

Philosopher and peace campaigner, Bertrand Russell, lived here between 1911 and 1916.



13: St. George's, Bloomsbury Way

Famous Hawksmoor church, in the process of being restored.

14: Museum Street

Parade of unique shops.

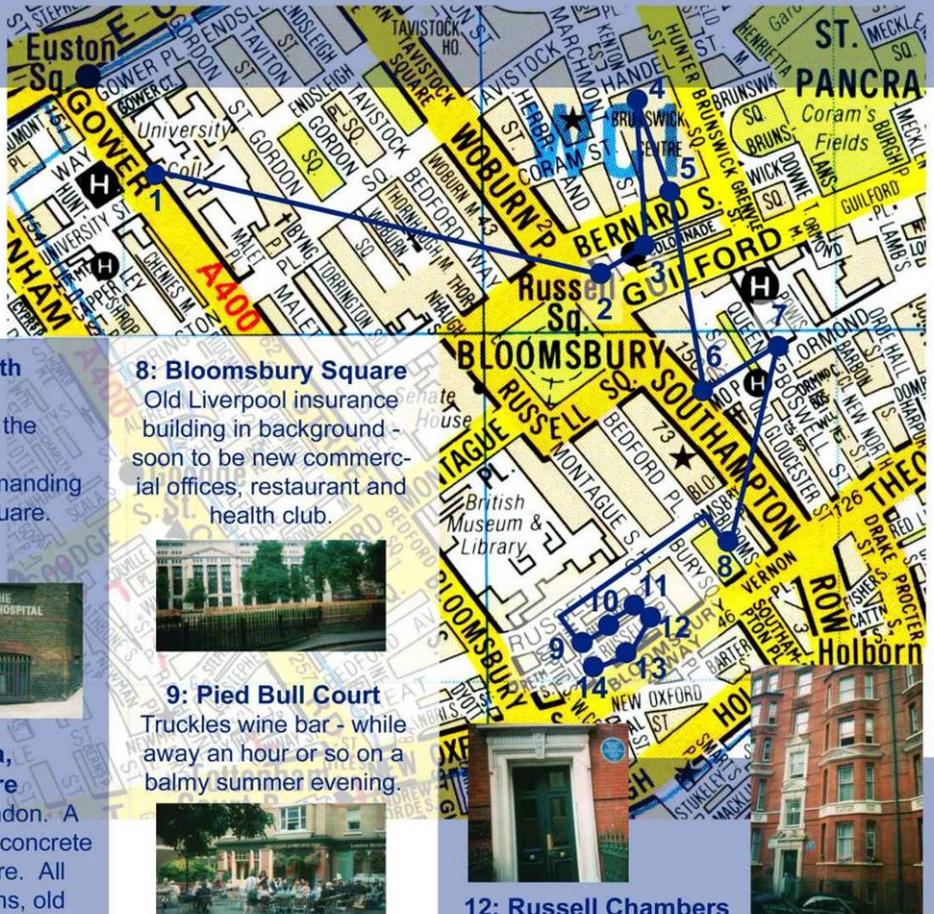


Figure 10: Betty's Thread

Interview 6: Betty's Tapestry

1: YMCA

2: Falkner Fine Paper

The best paper shop in London with beautiful Thai paper and Nepalese journals. It's been there forever. Iris Murdoch refers to it in a novel written in 1972.



3: Russell Hotel

This hotel was built by the Bedford's own personal architect. Statues of current dignitaries adorn the front as they hoped this would encourage visiting royalty to stay in the hotel.



4: The Imperial Hotel

This is one of Bloomsbury's least attractive buildings. Some time last century (the 70s?) they knocked down a beautiful building that had some of London's oldest Turkish baths underneath. They ripped out the marble baths to build a new gym.



5: Russell Square

One of London's best squares. Two years ago they closed it down and refurbished it according to the original Victorian plans - even the plants are from the original plans. Some people say it was to move out the coddling culture that used to be in the park at night.

The best thing - the fountain - it runs on a one hour cycle going from very small to huge jets of water. In the summer local kids run through it in their bathing suits. The worst thing about the square is definitely the pigeons. It's impossible to have a picnic without scraggy birds stalking you.



Figure 11: Armand's Thread

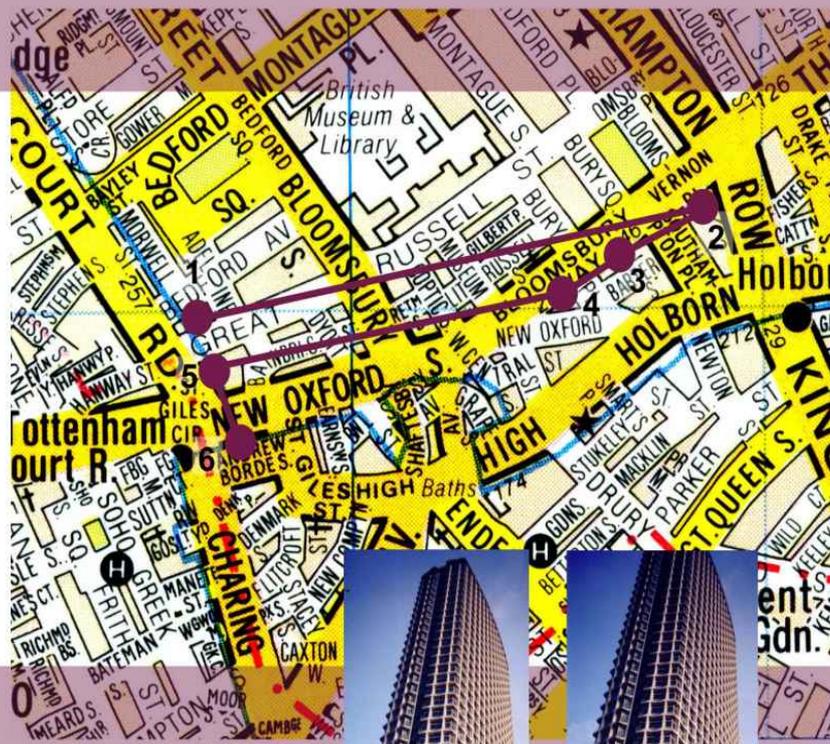
Interview 7: Armand's Thread

1: YMCA

2:
Here we are at a place called Sicilian Avenue. Interesting architecture.



3:
In Bloomsbury Way there is an interesting house and an old book shop called Swedenborg house. The book shop is below.



4:
The Marlborough is a beautiful building. Must have a long history.



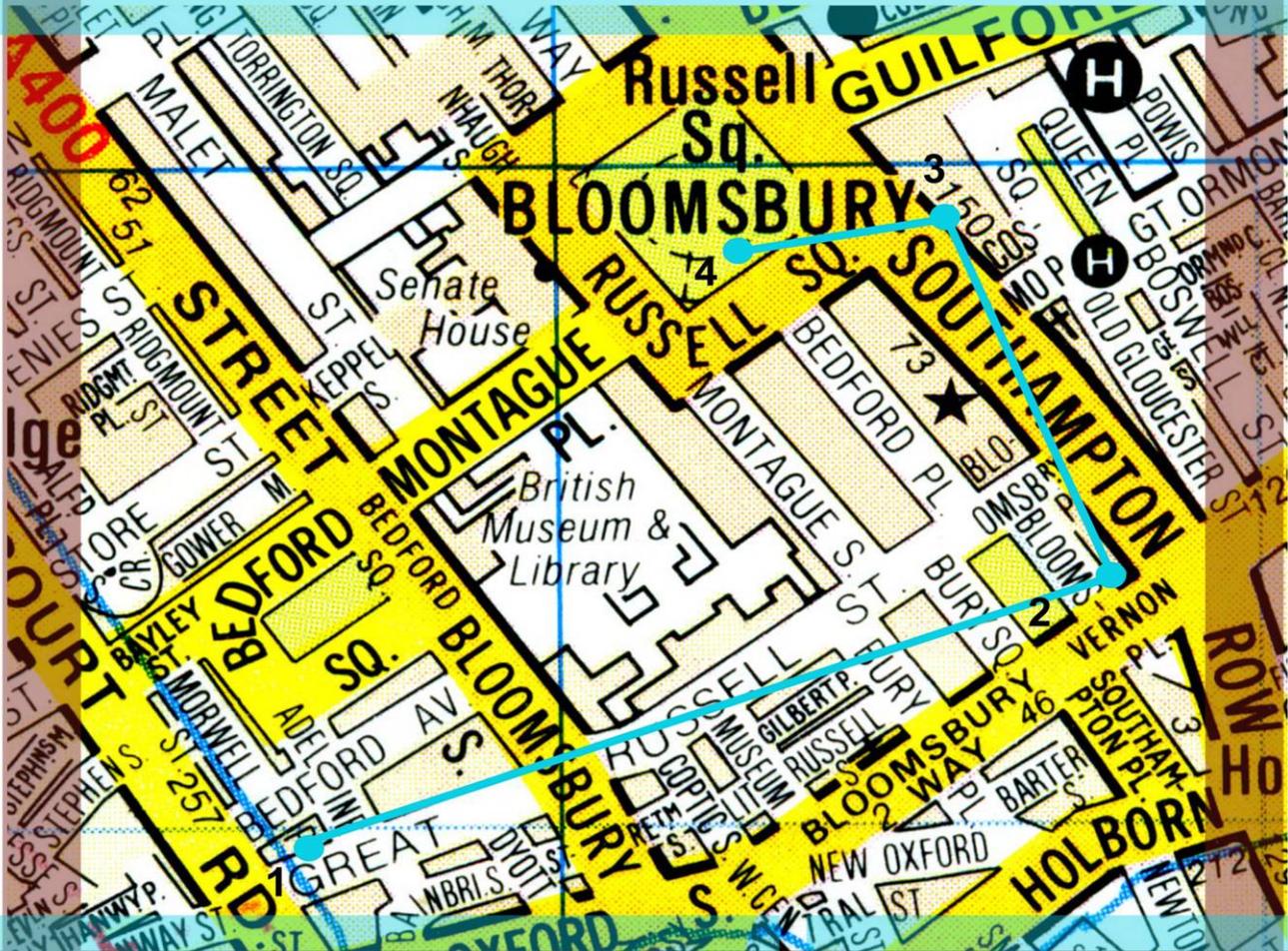
5:
Dominion Theatre in Tottenham Court Road, with the lovely statue at the entrance of the theatre.



6:
And not far, we have the Center Point building.

Figure 12: Joe's Thread

Interview 8: Joe's Thread



1: YMCA

2: Victoria House, Bloomsbury Place

Outside are some parking spaces allocated for motorcycles. A few weeks ago, the searing London heat melted the tarmac under my friend's bike, causing it to fall over and break the handle bar.

3: The Book Warehouse,

Southampton Row. Small but lovely looking bookstore. Good for value and has a wide variety of arty/cultural books that are hard to find elsewhere. May pop in to look for a book for my girlfriend!

4: Russell Street Garden

A Grade II listed landscape under current restoration to return it to its 1800s origins. Nice and chilled, with a small cafe to relax in. However it's close proximity to the busy Southampton Row means that it never has that feeling of total seclusion.

Appendix B: Methods and Sample

B.1. Situating 'Experimental Ethnography'

Beginning in the 1970s, anthropology has undergone a number of disciplinary self-critiques which have focused attention on both the theory and practice of ethnographic writing. Endemic to the revitalization of ethnography are a series of associations which have begun to loosely define both a practice and a politics of experimental writing. From both the modernist sensibilities of aesthetic avant-gardes to the critical interventions of anthropological feminisms... experimental ethnography... [is about] various conditions of writing, of authorship, and of the dynamics of writing established in the fieldwork situation (excerpt from the 'Anthropology and the Continuing Salience of Experimental Ethnography' panel description at the 1996 Meetings of the American Anthropological Association).

Experimental ethnography has a number of incarnations across a range of sites and has been defined by a variety of different although not necessarily conflicting meanings. For example, Catherine Russell (author of 'Experimental Ethnography' 1999) defines experimental ethnography as "mobilizing the play with languages and form for historical ends" while also invoking the 'avant-gardism' of film making and creative, artistic or post-modern endeavours.²⁸ As we can see here and from the opening quotation, the 'dynamics of writing,' of 'authorship' and of ethnographic representation are of considerable if not primary importance for those practicing experimental ethnography.

Of the many definitions, the four most prominent uses range from participant observation in human computer interaction (HCI) (Nardi and Schiano 2002),²⁹ to a method for challenging questions of difference and promoting awareness about the politics associated with identity (Visweswaran 1994; Teunis 2003). Between these two uses, postmodern experimental ethnography and what appears to be a 'film studies approach' appear. These versions of experimental ethnography are explained below.

Nardi and Schiano (2002) discuss experimental ethnography as a method of understanding how users engage with computers, arguing that this is an important method for technical and computer designers. However, it is difficult to see how their version of experimental ethnography is ethnographic and how it differs from traditional methods like participant observation. A much more interesting application of the term draws primarily from feminist, racial/ethnic and sexual politics and embraces political change, or growth, as part of this process. For example, Niels Teunis conducted an 'experimental ethnography' of a theatre production challenging racism in San Francisco's gay culture, claiming "theatrical techniques" can capture the range and breadth of non-verbal racism, and provide a forum to promote community discussion, interaction and participation around the issue of racism (2003). Similarly, the term post-modern ethnography employs experimental

²⁸ In addition, Russell teaches a course entitled 'experimental ethnography' which concentrates almost exclusively on film, video, documentary making, cultural studies and visual anthropology.

²⁹ These categories are intended to convey the areas where 'experimental ethnography' has appeared. It is important to note that these are not mutually exclusive categories, do not follow disciplinary boundaries and do not refer to the theoretical tensions or subtleties within each category.

techniques in order to locate the intercultural voice often excluded by more traditional ethnographic methods (Ellis 1991, nd).

The most prevalent approach calls upon film studies (Ruby 2001; Russell 1999; Dukes et al nd.), and challenges linear representation and traditional ethnographic methods for two reasons. First, because the process of creating film requires an intense engagement with the field and one's respondents and is in and of itself like the ethnographic process (Dukes et al. 1999). Second, film and video are useful research tools, for triggering information, for documentation techniques and for expressing complexities in ethnographic detail (Russell 1999, Ruby 2003). For example, Dukes et al. argue, "some surrealist techniques could be effective in several ways that might be useful for ethnographic cinema... [And for] addressing theoretical issues in a visual way" that cannot otherwise be expressed (1999: 8). This perspective appears the most frequently in the literature, little that there is, on experimental ethnography.

B.2. Sample Demographics

In order to capture the diversity of tactics and meanings embedded in such spatial and technological relationships, we selected a sample of nine people with very different relationships to Bloomsbury. For example, four of the informants were Bloomsbury residents, two were regular commuters, two were occasional visitors and one was a tourist. It was important for our sample to have differing relationships to Bloomsbury, because the pilot pockets were based in Bloomsbury. Exploring social knowledge means questioning how respondents interact or respond to the UT framework. Because it is located, the respondents should ideally have different relationships to that location.

Our final sample was comprised of a journalist, a labourer, a tourist, an executive, a public relations consultant, a student, a nurse, a security guard and a freelance writer. Respondents ranged in age from 19 – 61. See Table 3, below for a brief overview of respondent profiles and this Appendix generally for more detailed information:

As table one indicates, the respondents came from a diverse range of socio-economic and occupational backgrounds and given the odd number, were as near as possible to an equal balance between genders. Although the 2001 census found that 27% of Camden residents "were from non-white groups" (Storer nd), our sample was too small to reflect this ethnic distribution. Respondents were contacted using a variation of traditional snowball sampling, drawing upon referrals from some team member's referrals, from local groups and also from some respondents' recommendations. All respondents were interviewed individually, with the exception of the couple, Mandy and Stanley, who were interviewed together.

Table 3: Respondent Demographics

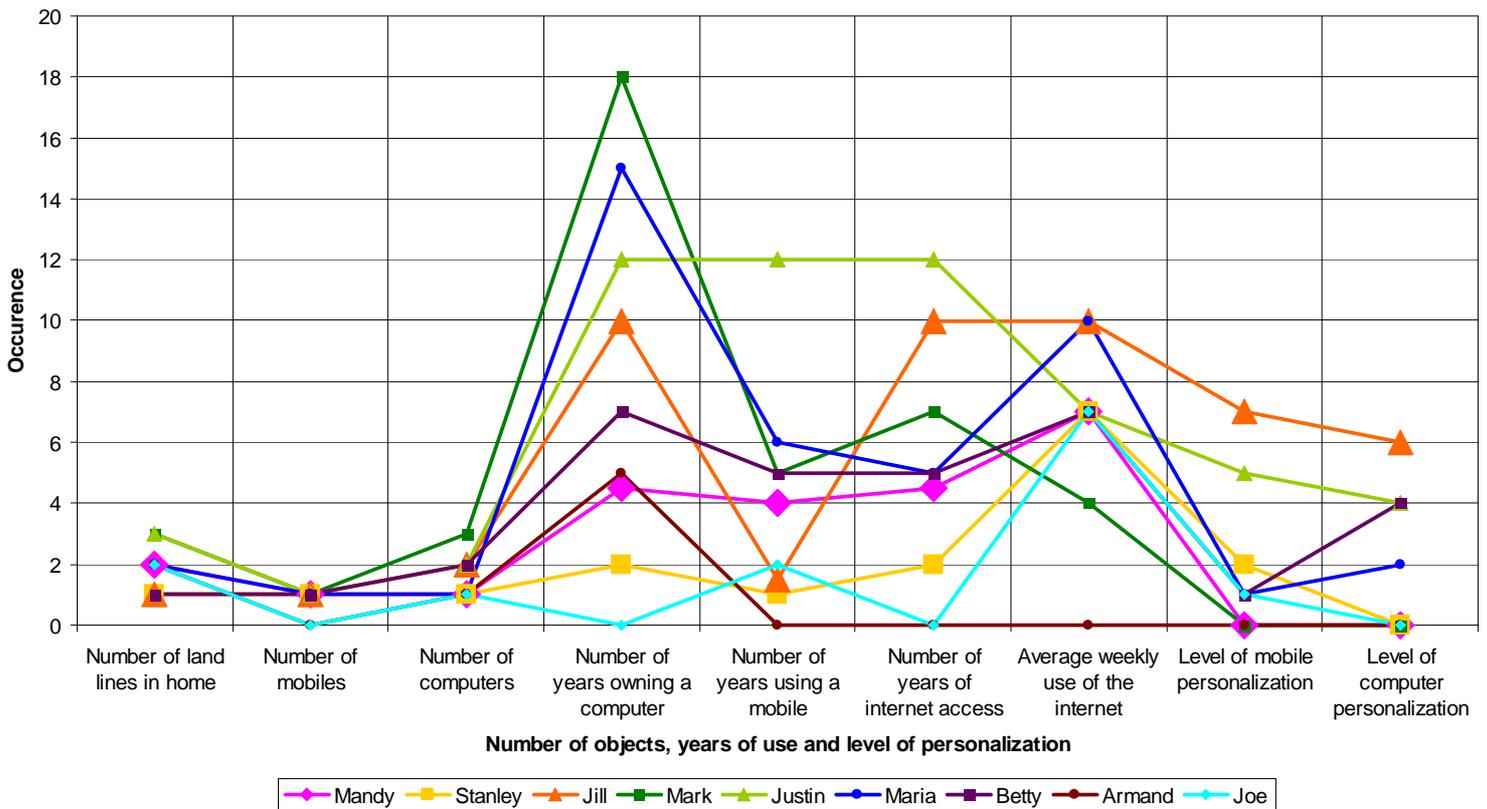
Name	Gender	Age	Occupation	Income	Nationality/ Ethnicity	Relationship to Bloomsbury
Mandy	Female	30	Journalist, musician, single mother	10- 24 999 (3)	British/ White	Occasional visitor
Stanley	Male	36	Labourer, musician	0-9 999 (2)	Welsh/ White	Occasional visitor
Jill	Female	28	Teacher, musician	10- 24 999 (3)	Canadian/ White	Tourist
Mark	Male	30	Nurse, vicar's son	25- 49 999 (2)	British/ White	Resident
Justin	Male	43	Chief executive	25- 49 999 (2)	English/ White	Resident
Maria	Female	61	Public relations consultant	n/a	British/ White	Resident
Betty	Female	27	Freelance copywriter	50- 75 000 (1)	British/ White	Resident
Armand	Male	60	Reception / security	10- 24 999 (3)	Romanian	Commuter (work)
Joe	Male	19	Student / stock clerk	0-9 999 (2)	English/ White	Commuter (school)

It is important to note that the names of all respondents have been changed in order to anonymize and secure their identities. Respondents signed detailed informed consent forms outlining what their participation would involve, how their information and research data would be used, who was involved in UT and their rights (e.g. that their participation was voluntary, they had the right to ask questions and leave at any time without any explanation etc.). Three respondents granted permission to include personal photographs taken during the research and for its eventual publication.

Appendix C: Technological Identities and Respondent Relationships to Technology

C.1. Figure 13: Respondent Use and Ownership of Mobiles and Computers

Urban Tapestries: Use of Mobiles and Computers



C. 2. Table 4: Respondent Levels of Technological Comfort

Legend for Levels of Comfort									
Value	Description								
0	I'm not sure what that is OR this question is not applicable because I don't have it								
1	Very uncomfortable, I hate doing that kind of thing								
2	A little uncomfortable, I don't like doing that kind of thing, but even if it takes me ages, I'll eventually get through it								
3	Reasonably comfortable, it's ok, if I run into trouble I know where to go for help								
4	Pretty comfortable, I've done that enough times to know the basic routine								
5	Very comfortable, I could do it in my sleep / I know them inside out								
Levels of Technological Comfort									
Tasks and Technologies	Names of Respondents								
	Mandy	Stanley	Jill	Mark	Justin	Maria	Betty	Armand	Joe
Using mobile phones	4	3	3.5	4	5	3	4	0	3
Changing the answer message	3	2	3	3	5	4	3	0	2
Using predictive text to write a text message	5	1	4	0	4	0	1	0	1
Downloading a ring tone advertised on TV	3	1	2	3	5	0	2	0	1
Using a computer	4	3	4.5	4	5	3	5	0	2
Installing a new program on my computer	5	2	2	3	5	1	4	0	1
Finding out next week's weather report on the internet	5	5	5	4	5	0	5	0	3
Defragmenting my hard drive	5	5	0	0	5	0	3	0	1
Setting up a new VCR or DVD	2	4	4.5	4	5	0	3	0	2
Setting up a stereo system	4	5	4.5	4	5	1	4	0	2
Setting up a new computer	5	2	2.5	3	5	0	4	0	2
Setting up surround sound in the living room	5	4	5	4	5	0	1	0	2
Fixing electronic malfunctions	2	0	5	0	4	0	3	0	1
Average	4	2.8	3.5	2.8	4.8	0.9	3.2	0	1.8

C. 3. Table 5: Overview of Respondents' Technological Identities

Name	Average: Tech Comfort	Primary Attitudinal cluster	Favourite ICT	Least favourite ICT	Factors influencing attitude
Mandy	4	pragmatist	texting	doesn't have one	<ul style="list-style-type: none"> - appreciates convenience of ICTs - practical approach - has two web-sites and is well acquainted with computing and web-based applications - likes new things and likes new technologies, but economical about purchases
Stanley	2.8	pragmatist	texting	doesn't have one	<ul style="list-style-type: none"> - appreciates convenience of ICTs - maintains a web-site for one of his bands - likes immediacy (texting) - useful for maintaining social /musical networks - believes technological innovation has plateaued
Jill	3.5	enthusiast	e-mail and texting	television	<ul style="list-style-type: none"> - likes new gadgets, mechanical and electronic - ICTs enable contact with a very important international social networks - ICTs enable a sense of control
Mark	2.8	pragmatist	mobiles, dvd's	e-mail	<ul style="list-style-type: none"> - mobiles important for maintaining social contact - no immediate need - not particularly interested in new ICTs, or technology generally
Justin	4.8	pragmatist	depends on the context	depends on the context	<ul style="list-style-type: none"> - lots of experience with computers - reserved about purchasing new ICTs - appreciates communicative ease and convenience - powerful positive vision of potential in ICTs
Maria	0.9	pragmatist/aversive	telephone and mail	texting	<ul style="list-style-type: none"> - approaches technology functionally - generation gap prevents real skill - not very confident about personal capabilities
Betty	3.2	aversive	context dependent	texting	<ul style="list-style-type: none"> - ICTs are ugly and unaesthetic - inauthenticity - impersonal - time consuming - invasive
Armand	0	aversive	telephone and fax	doesn't have one	<ul style="list-style-type: none"> - no immediate need - time - uninterested in new media - invasive
Joe	1.8	pragmatist	telephone	texting and fax	<ul style="list-style-type: none"> - no interest in new technologies - useful for university - vastly prefers face-to-face communication over any other form

Appendix D: Glossary of Location Sensing Technologies

Ad Hoc networking: A term referring to peer-to-peer networks in which there is no client/server distinction, but instead where all networked devices are nodes. Currently used to describe non-infrastructure 802.11 networks which allow for multi-hop connections to a fixed internet connection, spontaneous networking between nodes and dynamic network topology (i.e. the area covered changes with the position of the nodes in the network).

Bluetooth: A short range (10 metres) radio networking technology operating in the 2.4Ghz band, mainly used for personal area networking (communication between different devices such as PDA and mobile phone)

Cell Triangulation: A method of locating a mobile device by triangulating its position from the three nearest base stations. The strongest signal will indicate which mobile phone cell the device is located within.

802.11 (WiFi): The name of the IEEE standard for wireless networking in the 2.4 and 5.4Ghz bands of the radio spectrum covering up to 250 feet (100 metres). Also known as Wireless Local Area Network (WLAN). Different specifications include 802.11a, b, g and h.

GPRS: General Packet Radio Service: a radio technology for mobile phones which breaks information into small 'packets' which can be transmitted individually rather than as a continuous stream as in traditional circuit-switched networks.

GPS: Global Positioning System: the USA's military satellite system for determining location, also available to civilians (limited to a maximum accuracy of about 15 meters). Qualcomm's Assisted GPS combined signals from both satellite and wireless/mobile networks to increase the accuracy of position location.

Mesh Networking: Alternate description for Ad Hoc Networking.

MobileFi (802.20): A new IEEE wireless networking standard providing speeds from 1Mbps to 4Mbps in licensed spectrum below 3.5GHz over distances of about 15km.

PalmOS: The Palm Operating System for PDAs.

PDA: Personal Digital Assistant: a handheld computer.

Pocket PC: Microsoft operating system for PDAs based on Windows CE. A version for mobile phones also exists called Smartphone 2002.

Symbian: An operating system based on PSION's EPOC, now adopted by many mobile phone manufacturers as the leading operating system for 'smart' mobile phones (e.g. Nokia's Series 60 & Ericsson's UIQ).

3G: Popular acronym for Third Generation mobile phone systems (see also UMTS).

UMTS: Universal Mobile Telecommunications System: the generic name for the W-CDMA implementation of Third Generation mobile phone systems (see also 3G).

Waypoint: A term indicating a location identified through the GPS system (see above).

WiFi (802.11): Wireless Fidelity: a generic name for the various implementations of 802.11 wireless networking standard, as popularised by the WiFi Alliance.

WiMAX (802.16): A new metropolitan area wireless networking IEEE standard offering point-to-multipoint broadband wireless access in the 10-66 GHz band.

Windows Mobile: The new name for Microsoft's Windows CE and PocketPC (see above) Operating systems. Released June 2003.

XMLRPC: Extensible Markup Language Remote Procedure Call.

This glossary was created by Giles Lane, Proboscis (November 2003, <http://www.proboscis.org.uk/urbantapestries/glossary.html>).

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