"It's Always There, It's Always On": Australian Freelancer's Management of Availability Using Mobile Technologies

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ABSTRACT

The paradigm of "access, anytime, anywhere" has been critiqued within the mobile HCI literature as a broad assumption that simplifies understandings of actual work practice, and as an example of rhetoric that allows researchers to ignore the temporal aspects of mobility. The key aspect of technology use that remains unclear, however, when discussing this paradigm is the complexity of the concept "anytime, anywhere" from the perspective of the user. This paper addresses this gap by discussing findings from an empirical study of freelance workers, across both work and social contexts, in which availability emerged as an important concern for participants. This paper explores the ways in which freelancers use their mobile devices to manage their availability to others. Finally, we also consider implications for the ways in which mobility is conceptualised within the mobile HCI literature.

Categories and Subject Descriptors H.5.0 [Information interfaces and Presentation]: General

General Terms
Design, Human Factors

Keywords

Studies of practice, availability, mobility, work/life.

1. INTRODUCTION

The paradigm of "access, anytime, anywhere" has been critiqued within the mobile HCI literature as a broad assumption that limits understandings of the complexity of actual work practice [12], and as an example of rhetoric that allows researchers to ignore the temporal aspects of mobility [3]. However, it cannot be debated (with the exception of occasional network loss or device failure) that carrying a mobile device for most waking hours provides users with a potential for interaction, and availability, that was previously not possible with limited access to fixed resources at fixed times of the day. The "access, anytime, anywhere" paradigm is underpinned by

this potential for action and availability that mobile devices afford their owners. The key aspect of technology use that remains unclear when discussing this paradigm, however, is the complexity of the concept "anytime, anywhere" from the perspective of the user. In practice, a person's availability to others is shaped and dictated by the demands of the various activities, people, contexts, and situations that are encountered throughout the process of daily living. For example, people's mobile activities do not always occur independently of time and location, and instead can be highly dependent upon specific times and/or places [15]. The technology may provide the potential for availability twenty-four hours a day, seven days a week but the people who use these devices are not available in such a straightforward way.

Discussions of availability from a human-centred perspective have tended to focus on a number of aspects. Firstly, explorations of the ways in which people negotiate or manage their availability for telephone conversations. For example, examinations of the opening statements in mobile phone conversations, such as "where are you", that establish availability for interaction [2, 7, 14], the gift-giving of mobile phone numbers and leaving phones at home to prevent unwanted calls [8], and forwarding home phone calls to mobile phones [11]. Secondly, there are a number of empirical studies that examine the "anywhere, anytime" paradigm in relation to the actual practices of mobile workers. For example, Perry et al. [12] discuss the ways in which mobile technologies, including paper resources, are used by mobile workers to access information as they work remotely. Wiberg and Ljungberg [15] identify the dependence of mobile telecommunications service worker's activities upon either specific times or places, or both. These studies reveal that the concept of "anytime, anywhere" is limited and oversimplifies the complexities of actual practice. Finally, aspects of availability are often touched upon within papers that explore the social impacts of mobile phone use. For example, Ito [4] observed that friends prepare for future absence by informing others of their impending unavailability. Ling & Yttri [9] note, in their discussions on mobile phone use for coordination, that accessibility to friends is of key importance to teenagers for feelings of membership.

The concept of availability is threaded throughout the literature yet, with the exception of Licoppe and Heurtin [8] and Weilenmann [14], is little discussed as the predominant focus of individual papers. In addition, the concept of availability has not been examined in any systematic way; it is a broad term and researchers have addressed the different dimensions without identifying them as such. Furthermore, existing discussions of availability tend not to consider the ways in which a person's availability relies upon the contingencies of their immediate situation, and that this varies over time. For example,

Licoppe and Heurtin [8] identify the use of features of the device as a way of choosing to be unavailable, for example switching off the device. However, they do not examine the ways in which a person's availability to others relies upon the contingencies of their immediate task at hand. This paper addresses this gap by discussing findings from an empirical study of freelance workers, in which managing availability emerged as an important concern for participants. The study explores the ways in which people negotiate when, where and to whom they make themselves available via their mobile devices, and examines mobile technology use across both work and social contexts.

The first section of this paper provides an overview and background for the study. The second section presents findings from this study in relation to availability. In this section we outline the various contexts in which freelancers work, and identify the ways in which people use their mobile devices to manage their availability to others. The final part of this paper discusses implications of these findings for the ways in which we currently think and talk about availability, and also mobility, within the domain of mobile HCI design and development.

2. THE STUDY

This work is an initial scoping study in a series of ethnographically inspired studies that are qualitative in approach. It is a preliminary study intended to ensure that further, more detailed, research is relevant to, and directed by, the concerns of the participants. Emergent issues identified in this study will be pursued in further field studies of participant's practices. Broad questions that shape this ongoing research include: What are the main reasons people are mobile? How do mobile technologies enable, contribute to, and support the mobile practices of users? What is the relationship between mobility and mobile technology use? This initial study focuses upon the domain of freelance workers. Freelancer workers are employed on short-term projects with a single employer for brief periods of time, such as three months. The intention in selecting this domain is that users are continually relocating from one work location to another, potentially across local, national and international settings. Freelancers may also experience periods of unemployment between contracts that can result in changes to their mobile technology use. There is a high level of mobility in the lives of freelancers that offers rich experiential insights into how mobile technology is used to support mobile practice.

Eight mobile technology users were selected from freelance work domains including IT, Film and Television, Technical Writing, and Construction. An equal number of male and female participants were interviewed for approximately one hour, using a semi-structured approach. Participants provided information on their work practices, their general movements and the technologies they currently use. Interviews were analysed using a combination of coding and memoing using nVivo software, and drawings to identify relationships between emerging categories.

3. FINDINGS

All of the participants frequently changed jobs over a period of 12 months prior to the interviews, working on projects that ranged in duration from two hours to six months. With often changing work locations and uncertainty about upcoming sources of work, participants relied heavily upon their mobile technologies and in particular their mobile phones. They regularly used their mobile phones to: inform others of their impending availability, for example for upcoming work; coordinate their availability for future

interaction with others; and, meet the demands of others on their time. Availability is an important concern for freelance workers. Participants stated that being even temporarily unavailable could result in the loss of potential work opportunities. In addition, participants noted that freelance workers have to be "extra available" to manage past and possible future relationships with clients whilst dealing with the present work situation. Furthermore, being available for, or contactable by, loved ones during extended and unpredictable working hours was viewed as of central importance to participants, especially those with families. Mobile devices provided participants with continuity across changing contexts and the ability to be contacted despite the uncertainty of their working conditions, including changing locations, hours of work, and unknown resources in new environments.

Each of the participants almost always carried and used a single mobile phone, both during and out of working hours. Two people owned and regularly used a separate Personal Digital Assistant (PDA) particularly for work purposes and predominantly to organise their time and record notes. Only one participant owned a convergent device that provided both mobile phone, and PDA functionality. With the exception of the convergent device, PDAs were generally not used outside of the work context.

Participants identified a number of aspects relating to managing their availability to others during the interviews. These included using features of the mobile phone to manage availability, others expectations of their availability, and the use of mobile devices to negotiate future availability. These aspects are discussed below.

3.1 Using Features of the Device to Manage Availability

Licoppe and Heurtin [8] outline people's management of their availability by deliberately choosing to carry their device, to turn it off, and to not answer their phones. However, they note that people often did not use these options, with little explanation. Our study also revealed that people, despite saying they often turned their devices off, rarely left their devices at home, and rarely turned them off. In particular, the majority of participants relied heavily on caller identification (caller ID) whilst silencing their phones to ensure that incoming callers could at least be identified before deciding whether to answer. Examples included keeping phones on and silenced in movie theatres, on film shoots and in work meetings. The desire to be available just in case an important communication might occur far outweighed the desire to ensure non-exclusive unavailability by utilising features such as the off button, of the device, Caller ID allowed people to judge the possible relative importance of the incoming call to their immediate activity.

An exception to this behaviour was the use of the phone's off switch to ensure that no unwanted, often work related, calls were received after working hours. A number of participants reported times at which they switched off from work by literally switching off their mobile devices. However, this occasional use of the off switch only tended to occur when alternative resources, such as a home phone, were available for friends and family to contact them. Participants tended to use their mobile phone as a point of contact for both work and social purposes, whilst they gave their home contact details only to select people to protect their privacy. Mobile phones were also infrequently switched off when participants expected to attend an activity, such as a meeting or a dinner date, in which they felt they could or should not use their device. In this case, often their mobile phones were either carried and switched back on at the earliest

convenience, or left nearby (for example in the car) so that the device could be quickly retrieved for use.

Whilst mobile, all of the participants noted that they were always accessible, no matter what, to a select few people, such as immediate family members. Interruptions were acceptable at work for these particular callers, no matter how busy the work was. In direct contrast, calls with unknown Caller IDs were also almost always accepted. Similarly to Palen, Salzman and Young [11], it was found that these types of calls generated curiosity, and a need to know. In particular, participants noted that often these types of calls were from potential clients calling about upcoming opportunities for work. Some participants also stored contact details for people whom they specifically did not want to talk to, in addition to friends and family. This avoidance strategy ensured that Caller ID could be used to identify the unwanted caller, and hence veto the call.

3.2 Expectations of Availability

Carrying a device that provided the potential for immediate availability often lead to the expectation by others that a person would or should be available when contacted. This took a number of forms. Firstly, freelancers experienced demands during their free time due to calls from past and present clients. Some participants noted that calls were hard to turn away as they needed to maintain a good relationship with their employer, despite the fact that the time spent on these calls was not paid for. Past clients contacted participants to ask specific questions about their previous work activities. Often the freelancer was the only person with detailed knowledge of how particular aspects of a system worked after completion of the job. Current clients frequently called participants on holidays and weekends, despite being informed of upcoming periods of absence. As male respondent one (M1) noted, "I have been at family functions and clients knew that yet they still rang hoping they would get me" (M1). Participants reported that they used strategies to minimise these expectations of availability such as avoiding work that could result in post-job support or "fire-fighting", and giving clients "training" to manage their expectations in both frequency of calls and out of work hour calls.

Secondly, participants noted that friends and family were likely to respect that people were often not available during variable and long working hours, and as such tended to use SMS to avoid the intrusiveness of phone calls. When working, participants were unlikely to dedicate time to social calls, having a strong sense of being paid by the hour and being there to do a job. As such, social calls were generally initiated during work breaks, travel time to and from work, and out of work hours. SMS in this case, was viewed as an extremely useful tool by the participants, providing them with the flexibility to respond to messages at times and in locations that suited their schedules. Also, when working long and unexpected hours, participants found that their social interactions with others, and corresponding mobile technology use, diminished considerably due to difficulties in planning ahead. This is similar to findings by Licoppe and Heurtin [8], who identify a relationship between how available a person makes themselves, and the quantity of incoming and outgoing calls.

Finally, participants also discussed instances of the appropriateness of being available via mobile devices in public places and social situations. They reported that it was offensive when others prioritised their mobile phone use over their immediate company. Participants noted that people should not answer their mobile phones in either a one-on-one situation with another, or when in a situation in which

incoming calls, with associated ringing and beeping or resultant conversations, would intrude upon the experience of others. Participants expressed their disapproval of calls that were answered or not silenced regardless of expected norms on use, and reported novel social consequences that have emerged as a way of managing mobile phone use in particular situations. For example, "The rule is, the joke is, that if your phone goes off on a shoot you buy the beers at the end of the day" (F2).

3.3 Announcing and Coordinating Future Availability with Others

The mobile phone played a pivotal role for participants in preparing for various forms of upcoming mobility, from coordinating a social drink with a friend to transitioning between jobs. In particular, participants used their phones to increase others' awareness of their impending availability for upcoming projects. Mobile phones were used to inform other freelancers of changes in work status, from unemployment to employment and vice versa, and upcoming dates of availability. People noted that they did not deliberately invest energy into maintaining networks, often simply receiving calls about potential work without having to chase it. However, informing others of upcoming availability was a common step in the process of securing ongoing work. A number of participants noted that they were often asked, when starting a new job, to recommend others for various roles in the projects. Having increased awareness of the employment status of others allowed them to recommend people that they viewed with respect, or liked to work with, and that they also knew were potentially available.

Another significant use of mobile devices by participants was the coordination of availability for interaction with others at times that suited both party's busy schedules. Using mobile devices, and in particular SMS, proved to be an effective method to negotiate this mutual availability for either future phone conversation or face-to-face interaction. For work purposes, the coordination of a person's availability using their mobile phones included negotiating their attendance at interviews or informal meetings with potential clients and, if successful, negotiating starting dates for the next job, with any associated commitment overlaps between projects. For social purposes, participants used their mobile devices, amongst other things, for coordinating times and places to meet with others, establishing their availability for particular activities, calling ahead to a place to ensure that desired resources would be ready for collection, checking when and where a particular service would be provided. For example, "There were about 10 text messages and calls that went backwards and forwards throughout the day as John and I attempted to find each other [at the festival]" (M2). A number of these calls served the purpose of ensuring that participants did not waste travel time to arrive at destinations in which the expected people, services, or resources, were not present or accessible. Ling and Yttri [9] discuss the use of mobile phones for the micro-coordination of basic 'when and where' logistics with others. Our findings suggest that this type of coordination also serves the purpose of managing one's availability with others.

4. DISCUSSION

Findings from this study reveal that people manage their availability in response to the particular demands of the physical and social situations in which they find themselves on a daily basis. Mobile devices provide the potential for perpetual availability, and in fact people expect this of their devices, however participants in this study specifically required flexibility in terms of choosing how to make themselves available to others throughout the day. Rather than being a fixed entity that remains constant over time, our findings reveal that a person's availability is fluid and dynamic. More specifically, participants' choices about their availability relied heavily on the contingencies arising out of the immediate task at hand, with these needs evolving over time. As Suchman notes, "every course of action depends in essential ways upon its material and social circumstances" [13, p. 50].

As a result of their frequent job relocation, participants managed their availability on a daily basis at different levels of granularity. This ranged from the coordination of daily events to the negotiation of availability for future work opportunities, sometimes months in advance. Mobile phones supported people in these often complex and overlapping negotiations by providing them with continuity across both longer term changing job locations, and also the variable locations experienced each day. Although these granularities of availability are emphasised in the lives of freelance workers, we would expect to see the management of these types of temporal differences in the lives of people more generally. It is a way of projecting into the future, wherein the foundations for the future are laid in the here and now. As Merleau-Ponty [10, p. 489] notes, "the passage of one present to the next is not a thing which I conceive, nor do I see it as an onlooker, I effect it".

In addition to the complexity and contingent nature of availability, our findings suggest that the concepts of availability and mobility are closely intertwined. When organising interaction with others, the establishment of availability was a fundamental step that preceded mobility, in which mobile technology often played an important role. Identification of the various granularities of availability that are experienced by participants over time suggests that there is also an additional, essential, temporal dimension to mobility. Fallman [3] notes that, due to rhetoric such as "anytime, anywhere", conceptualisations of mobility within the mobile HCI literature largely ignore the temporal dimensions of mobility. It became clear from the study that people move not only between the situations experienced on a daily basis but also between more established social structures over time. This temporal dimension to mobility has not yet been fully addressed within the literature that focuses on conceptualising mobility, such as [1, 5, 6].

Carrying a device that facilitates constant availability means that people have to employ certain methods to negotiate when, where and to whom they make themselves available. Participants frequently talked about the pressures of freelance work, and the difficulties in maintaining a reasonable work/life balance. The constant availability provided by mobile technologies resulted in the occasional misuse of this by others, and, as discussed in the findings, participants employed a number of strategies to minimise this. Of interest, few of these strategies involved using existing features of devices, such as categorising phone contacts into groups with different ring tones for selective answering or silencing. Instead, these difficulties were predominantly managed socially. This limited use of device features, combined with an understanding of the emergent and relational character of availability, poses a difficult challenge for mobile technology designers in the development of availability management solutions from a technological perspective.

In this paper we have only addressed the issue of availability. A number of other themes emerged in this study in relation to mobility and mobile technology use, including mobility for maintenance of

the self, and people's management of their ongoing involvement in remote situations. These issues still need to be addressed in their own right, and the relationships between these concepts need to be identified and explored. This is the task of future work and future studies. The findings on availability in this study, however, reveal the contingent nature of availability, and direct us towards a more advanced conceptualisation of the "access, anywhere, anytime" paradigm from a human perspective.

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