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Social aspects of place experience in mobile work/life practices

Luigina Ciolfi, Breda Gray and Anthony D'Andrea

Abstract This chapter examines the importance of “where” mobile work/life practices occur. By discussing excerpts of data collected through in-depth interviews with mobile professionals, we focus on the importance of place for mobility, and highlight the social character of place and the intrinsically social motivations of workers when making decisions regarding where to move. In order to show how the experience of mobility is grounded within place as a socially significant construct, we concentrate on three analytical themes: place as an essential component of social/collaborative work, place as expressive of organizational needs and characteristics, and place as facilitating a blending of work/life strategies and relationships.

1. Introduction

Work practices are increasingly mobile, both from the point of view of spatial mobility and in terms of mobility between roles, situations and relationships. Yet there has been little research so far on the implications about *where* work is done: mobile workers accomplish their work at a variety of locations, and such locations are tightly connected with practices and interactions, both in terms of infrastructural support [18] and of possibilities for collaboration [22]. This chapter examines the social character of place in the practices of a community of highly mobile workers. It investigates motivations for mobility, both social and cooperative: where do workers work and what affects their decisions to move in this regard? Our findings suggest that place matters in decisions about where work is done because, among other factors, it is invested by social connotations and meanings -

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something that the design of technologies supporting mobile interaction should be more sensitive to.

Mobility is a broad concept characterizing much recent socio-scientific research and technology-related research. The *new mobilities* approach involves examining ‘how social relations necessitate the intermittent and intersecting movements of people, objects, information and images across distance’ ([25], p. 54). It is concerned with movement but also with the economic, social and cultural organization of distance (ibid.). Underpinning this approach is the view that human mobility cannot be understood outside of the movement of objects and technologies: here ensembles of technologies with people, knowledge and other agents mediate and shape everyday life. People are engaged in making work and non-work worlds in and through the ways in which they ‘move, mobilize people, objects, information and ideas’ ([4], P. 112). We are particularly interested in how this deep understanding of mobility is linked to the role of technology in supporting collaborative practices on the move, and on how mobility in both work and life is mediated by technology.

However, most research on the role of technology in supporting practices on the move is still overly technology-centred, focusing primarily on the design and/or evaluation of services, protocols and applications. Studies of mobile technology use seldom extend to the broader circumstances of mobility, and almost never to *where* mobile work and life practices occur. As well as this, the *everytime-everywhere* assumption underpinning mobile technology design and development [14; 27] – whereby it is assumed that the needs of mobile actors are not location or time dependent - has led to an abstracted understanding that lifts mobility out of specific contexts. Although this approach makes an important contribution in relation to infrastructure and access (for example, in terms of providing robust connectivity and services), it makes little or no contribution to understanding human interactions on the move [8]. As Sørensen points out: ‘It is tempting to assume (...) that work can be conducted at any time and anywhere through combinations of global networking and mobile information technology. However, this conclusion makes inappropriate assumptions of both the power of technology and the inherent characteristics of work’ ([23], p. 4). Human interactions on the move - with technology and with other people - are much more complex, and are affected by practical circumstances related to places, organizations and social relationships: therefore, we feel that it is necessary to look at the specific physical contexts that mobile workers inhabit in their everyday practices, and to examine their strategies for movement in relation to them.

Whereas early HCI research on mobility and work focused mainly on individuals, within CSCW there have been attempts at looking at cooperative work on the move [1; 5]. The studies of mobile practices conducted so far are mainly focused on collaborative aspects of the task-at-hand: for example, how mobile software and applications support group work [13; 10] and how collaboration is accomplished while on the move (see for example [19]). In our study, we explore broader social and collaborative connotations of mobility as a strategy pervading

work and life. We position our work within a stream of research in collaborative computing looking at mobility in context, an area of study still under development [21; 26]. In this chapter we reflect on data gathered as part of a project studying new patterns of mobile work and life in the context of the ‘knowledge economy’: grounded on a model of work that assumes flexibility, connectedness and spatial and practice-related mobility [9]. Views vary with regard to which kinds of work are most emblematic of the knowledge economy. However the main characteristics of so-called knowledge work tend to include: work with codified concepts/knowledge [24]; variety or varied work; interdependence with tasks done elsewhere; individual autonomy with workers being expected to make independent judgements in uncertain contexts [2] and a tendency for work to be undertaken across different locations and on the move [7].

Our focus is on the lived experience of these workers and how mobility characterizes their work and life practices. In particular, we look at the central role of place as socially constructed in these practices. In the following section, we discuss further how our work connects to related research on place and mobility and how we set out to conduct our investigation.

2. Situating mobility in the social world

In our project, we make the assumption that new forms of work increasingly have mobility inscribed in them and the need to manage *fluidity* and *boundaries*, with technology playing an essential part in both [23]. Our argument is that such mobility needs to be studied in context, and that such context reveals patterns of social and collaborative practices that are closely tied to mobile strategies and linked constructions of place. Mobility is a wide-ranging notion and previous research has identified various forms of spatial mobility, differentiating levels at which movements can take place [17] and various types of mobile activities [15]. We acknowledge the importance of these finer distinctions: although our analysis takes place at a broader level, that incorporates these different forms of mobility by documenting mobile practices as shaped by context. As such, our main goal is therefore to look at mobility in context.

Notions of place can help us uncover some of the social connotations of mobility. Attention to place acknowledges the debate on distance [20] and recognizes that communication, interaction and collaboration happen in different ways through co-presence. By centering place it is also possible to examine how face-to-face interaction blends with interactions established by digital means [16], and identify the awareness mechanisms in distributed group work [11]. Thus, considering place *explicitly* as a lens to understand practice within a certain physical context allows us to connect aspects of human activities and experiences to the qualities of the environment [12]. We focus on the making of places, the boundaries and trajectories between them, and we consider these places not just as locations

but as scenes of our experience in the world. Technology becomes a factor in the embodied context of practice and we pay particular attention to how it mediates activities. We are not singling out locations, but address place as the multi-layered experience within the physical world that is simultaneously shaped by personal, social, physical and cultural factors [6]. As such, place is defined by social interaction, it is invested with social relationships as well as physical qualities.

Others have highlighted the importance of considering place when studying mobile practices. Brown and O'Hara [3] argue that work changes place, just as place changes work and work-time planning: places are constantly reconfigured and appropriated by people to support their activities, and being in a particular place affects work activities in terms of physical resources and other factors. Work places are made and work is made in place. In their study of nomadic study groups, Rossitto and Eklundh [22] examine how en-placed experience leads to complex patterns of collaboration and reconfiguration of the physical environment, and argue that social and collaboration needs lead to choosing a particular place of work.

Similarly, in our study, we argue that the conditions under which people choose their work place are deeply socially motivated. As such, places are socially experienced and technology becomes entwined in an individual's strategies of action. These are social and collaborative strategies: they might not be always related to a collaborative *task*, but they are related to collaborative *work* and to social relationships, both professional and personal. As work and life become more mobile, workers are faced with the question of where they are done. Decisions about where work and life take place involve considerations about interaction with others and about the differentiated mobilities in relation to everyday movement and long-distance travel. Moreover, turning to the question of how boundaries between work and life, between work and personal social relationships might be blurred by mobile work, it is clear that technology plays a central mediating role.

In the following sections we present evidence for our argument by discussing qualitative data gathered through a series of in-depth interviews with high-tech professionals, all living relatively mobile lifestyles. All the participants in the study are working in the high-tech sector in senior roles (managers, directors, CEOs, etc.) and their companies are all located in the "National Technology Park" (NTP), a regional science and technology hub housing around 80 organizations with strong emphasis on research and development. Although our participants hold slightly different roles within their organization, they present the common traits of living highly mobile lifestyles, working in positions of responsibility and doing business in the high-tech sector, also involving substantial use of digital technologies. We conducted in depth semi-structured interviews with 11 men and 7 women. The qualitative methodology we employed involved asking people about their everyday experiences of work and life, their interaction with technological artefacts as manipulated in practice and the affordances for practices they offer. The interview was loosely structured into three parts: biographical questions about the participants' background, profession, family and lifestyle; work ques-

tions about daily activities and their integration with technologies, forms of employment, connectivity and networking practices; institutional questions regarding their company's choices over location, perceptions of quality of services and interaction with support agencies. In order to show how the experience of mobile work and life is grounded within place as a socially significant construct we concentrate on three themes:

- Place as an essential component of social/collaborative work;
- Place as expressive of organizational needs and characteristics;
- Place as facilitating a blending of work/life strategies and relationships.

In the following sections, we will concentrate on each theme, presenting and discussing relevant data excerpts.

3. Place as essential component of social and collaborative work

Each place of work carries implications of a social and collaborative nature. Workers choose to be somewhere in order to establish or maintain relationships and to do collaborative work. Not only do some places provide structural support, but they *mean* something with regard to these factors: being somewhere means being with others, working with them, a strategy of collaboration or simply co-presence.

Jonathan¹, the CEO of a software development company, talks about his weekly work routine at numerous places:

I'm in here most days, because I just want to – we were taking on some, one or two new people, and I just want to get the whole, you know, importance going. But tomorrow, as an example, I'm in the city tomorrow in meetings with suppliers and S--, to see...can S-- maybe put us in the way of getting more opportunities, you know. Last week, I was in the city on Wednesday, with C---. We got an award from C--- for – it was five companies, [...] and ourselves, and there was two more, we got an award at a dinner last Wednesday. What else? On a day-to-day basis, it's just really being here, being available, you know, this type of thing (Jonathan)

Being “here”, meaning at the office, is important for Jonathan in order to establish relationships with the new people. Travelling to the city is also necessary to make new partnerships, receive the important award, work with suppliers, and strengthen their institutional collaboration with C---. In general, being “here” is valued as much because it strengthens internal relationships. It's not just about travelling, choosing to work at headquarters is an important social strategy too.

Jack, technical director of a software firm, is also conscious of his team at the company headquarters. When asked about why he does not like to do work from

¹ All names have been changed to preserve anonymity

his home, although he travels a lot internationally and finds this tiresome, he answers:

Well I suppose because the team is here. We do actually have to meet sometime, even though I haven't spoken to them much today and I've been away since Tuesday. And also what we have here is we have our own Intranet, to our own sort of network internally, and that I can't access from home. We could, but it would be too expensive and security wise it would be a nightmare. But the main thing is just to meet the team (Jack)

There is certainly an infrastructural issue connected to headquarters (the secure intranet) that makes it relevant for Jack to be there, but a technical solution could be found to reduce the need for presence at headquarters. However, if for Jack the 'main thing is just to meet the team', then presence at headquarters will continue to be necessary. As the discussion progresses, Jack agrees that he could work from home at least some of the time and deal with queries over the phone, but chooses not to:

Well the main thing, the reason I came in this morning is I had a teleconference with some folks in Greece and Italy at 10, so. I could have done that at home, but. I don't know, I just come into the office, it's handier. And all my files and stuff is here, the paper. The main thing is to meet, is to meet the team, because like it isn't just me managing the projects. It's about the guys doing the Web site, or software, or hardware, whatever. So it isn't just me (Jack)

Although the presence of other resources is one factor in his decision to work at the office for the morning, the main motivation is a collaborative one. The specific technological infrastructure of the office and presence of 'the team' means that projects can be managed more effectively and efficiently in that specific place.

Kate, chief engineer for a telecoms company, echoes this sentiment:

So I can do all of that from home, but I still feel the need to come in and be a bit more... You have to meet people, there's a social aspect to it that you need to, you know, I wouldn't talk to all the engineers every day on a technical level, you know what I mean, but you would try to make sure that you met them in the canteen [*inaudible*] have a cup of coffee or, you know, even you're passing in the corridor, you, you know, you ask them how the kid is or how the wife is or how their soccer match went (Kate)

Kate's work extends beyond her engineering skills to creating good worker relations that enable smoother collaboration when she needs to talk to her engineering colleagues on a technical level.

Jack also talked about work with collaborators requiring long-distance mobility. His company is involved in EU projects, and, as the technical director, Jack oversees a number of these.

This week we had our meeting in Skovia on...Well we had a series of meetings on Thursday and Friday. So I had to prepare for those because I'm the project manager. Eighteen partners and another five or six that came along, and we had on Thursday morning, we had a business partners meeting, which was totally business – pricing, markets, all that sort of stuff. And then at 12 o'clock, we had the official launch by the municipality of Skovia where we had the TV cameras along and journalists and all that sort of stuff (Jack)

In his role as project manager, Jack needed to prepare for the trip and the meetings in Skovia. He also participated in a number of collaborative activities, some more focused and others regarding the visibility of the project, such as dealing with the journalists. Jack is well aware of the implications of working both at headquarters and in faraway locations: in the interview he goes on to describe his preparation for long-distance trips in order to work at his best with his international collaborators, as well as organizing things so that he can keep a connection with headquarters (for example by booking a hotel with good internet access so to be contactable by his home team). Therefore, even if his mobility means that he will not be in the presence of both groups of collaborators while he is in Skovia, his practice is conscious of having to maintain a collaborative link with them.

The choice of work place is not only between home, the office and some away location. Mobility also involves work being done *while* on the move. For example, Saul, software marketing manager, made the decision to travel to the city by train when he was involved in a project there, because working on the train helps him to focus on the work to be done collaboratively when he arrives in the city.

I'd go from here early in the morning, but I had the train ride up and the train ride down. And what that meant was that if I was going up to meet you, I'm coming to meet you, you're busy doing all your stuff at your desk because you're at your desk and you're doing, you know, twenty minutes of this and ten minutes of that, and you know, a quarter of an hour of that, and a phone call, and so on. And I had three hours on the train to do absolutely nothing except think about [you], and to focus on the meeting. So I was extremely effective in that time (...) I have nothing else to do except prepare for you. (Saul)

When the work activities of such high-skilled workers are readily mobile, they are constantly making decisions about where and when particular aspects of their work are done. The above quotes emphasize the ways in which particular tasks and collaborations are only possible in particular places. These places are understood and inhabited primarily with regard to relations with particular others, so that certain tasks can be completed, or the way is eased for other kinds of work to be achieved. This is exemplified by the very nuanced collaborative strategies that the participants deploy with respect to doing work at particular places. The places themselves come into existence as such via the social and collaborative motivations of the workers.

4. Place as expressive of organizational needs and characteristics

Places are not only socially significant to individuals, but also to entire organizations. The relative significance of particular places, whether the company premises or a home office, will depend also on the organizational culture: the place of work is related to the social relationships within the organization. Where the orga-

nization is and where its people are matters. Jonathan is a managing director but also funder and owner of his company: one of the first decisions he made was the actual placement of the company itself.

I just felt I would like to come in here because it was having the address of the Technology Park nowadays, is because we're providing more services rather than just boxes and hardware that it would give us a bit of an umph, we'll say, in that sense. Number two, it suited. I live in K----, you know, and it suited a number of people as well, this particular area. C-----, if you go to R----, as an example, it's just very, very closed in and the companies are on top of each other (Jonathan)

Being in the NTP expresses the values of the organization: it is a meaningful address for customers to recognize the company's degree innovation and quality of service. Moreover, there were practical concerns regarding where the workers live, and how placing the company in the NTP would suit the members of the organization.

The organizational structure of the company is also motivated by the relationship with clients in other cities.

What we have, we call it a sales office in C---, which in reality is now a number with a service office. So if you ring C---, it's answered here. In the city, the software company has a small office [there] which we use, but it - there's nobody permanently based there. So for all intents and purposes (...) we have a sales office in the City, a sales office in C---, but here is really where everything happens. (Jonathan)

The company is associated with other places: one of the remote offices has only a nominal presence, the other remote office doesn't have permanent staff but company employees go there when clients in the city need them. The organization is therefore physically structured around three places to aid the relationships with clients.

The organizational aspect of choosing a place of work for the company is not something that involves only the institution, but also the particular workers. For example, Charles, chief technology officer for an online services company, has made significant decisions about his personal work places: he does his day-to-day work from home and goes to the office for particular events, such as important meetings, although he lives not far from headquarters.

I find that the advantages outweigh any disadvantages, our client base is everywhere. This means we can provide support for them, not practically 24 hours, but I can respond to support an issue at 11 pm, having the ability to do that. Whereas some people in their office, it is a situation that means that the door is closed at 5pm and stuff like that, and that's necessary in some instances. But my type of work, I like embedding our work in what we do, so it is fairly seamless and we don't mind doing it like that (Charles)

The indeterminacy of place with regard to where clients are located, and the embedding of work in his home life arise for Charles from an organizational culture of fluidity and multi-locatedness: he feels that being at home allows him to work beyond the boundaries of an office and provide clients with better support while being present for his family.

Place also contributes to building organizational culture *internally* and not only with respect to customers and other external stakeholders. Dan, managing director of a software consultancy firm, expresses this view with regard to having people work in the office although they could easily work remotely.

One is to do with purely looking at results, and we don't purely look at results. We look at the actual individual as well and them fitting into the actual organization and creating a culture in the organization (...). If you're at home, you might feel that - well you have to prove yourself at home and you might be on Google, you might be searching different technical forums on the Internet trying to find the answer to your solution doing more reading. Whereas in your office, you can just say to one of the other guys in the office, "can I bounce something off you? Can I use you as a sounding board?" And those sorts of things, it's about team building (Dan)

The office is seen as a site of more efficient work via instant collaborative problem solving, and this in turn strengthens organizational culture. Dan says so explicitly when he suggests that working from home could isolate workers from colleagues, rather than support the team.

Another participant in our study, Angela - managing director of a small software firm -, when talking about her long distance mobility, mentions both aspects of the organizational significance of being somewhere that were expressed by Jonathan and Dan. Angela travels a lot internationally because she wants her customers to see that the company cares for the personal contact. She explains how she sees her role as someone representing the organization to customers and partners, especially when establishing a relationship with a new client.

People know where you're coming from, they know the bigger picture, and they know where you're going in general. So I find that the, actually spending time [*with clients*], particularly at the start up project phase is worthwhile. And then we would use the teleconferencing and emailing and that afterwards, and Skype, you know (Angela)

She also explains how she is happy to travel because all the other workers are back at the office and instantly contactable for updates and problem solving – she is mobile so that others can be productive at headquarters in responding to customer issues raised some distance away in her meetings with clients. In Angela's example, the choice of where work happens is motivated by both how the organization relates to clients and how it works and strengthens its capacity internally.

5. Place as facilitating a blending of work/life strategies and relationships

Throughout our study, we have collected examples of how the participants' mobility is a constant blend between work and life places and of how the choice of place of work is connected to social relationships within both work and private life. Because high-skilled work relies more on specific skills and abilities rather than static infrastructure, much of this work can be done in many places. We saw

examples of how different people make different decisions on where to work, although generally motivated by social factors, hence creating a potential fluidity with regard to boundaries between work and life.

Charles has an office at the home he shares with his wife and two children.

I go to my home office, and use things like email and Skype (...) we also use social media tools like Twitter and LinkedIn to keep in touch with people. And in the office we also use tools like Yammer, collaboration tools like that to share documents and stuff like that. That would be generally the set up. Then I get my children and have lunch. So that's basically how we work (Charles)

In this description of how his company works, getting the children and having lunch are part of the same flow outlining how the company (which he refers to as "we") operates. Work and family tasks blur at Charles' home and this flexibility between work and life is also heavily mediated by technology. Although family and work tasks may be negotiated in a fluid way, some boundaries are defined: Charles chooses to leave one of the work technologies out of his home space. Charles' bedroom is kept work-free and Blackberry-free.

Well, I'd certainly keep the Blackberry out of the bedroom for sure. In that case, you do have to have and set up rules when you don't let that interfere with your personal relationships. (Charles)

As we saw in the previous section, Charles' decision to work from home has to do with his view on how the organization can best support clients. On the other hand, Sara, the owner of a web development agency, also works from home, however she explains her preference almost entirely in personal terms:

But my preference is to work at home. (...) It's a preference. I could do it from here and I could do it from anywhere in the world as long as there was an ashtray and some broadband, but I - it's just a personality thing really. I think I'm just a home body and I, you know, I like my husband being around. And you know, we have lunch together. I think you get into a groove and your best stuff happens where it happens (Sara)

The ambiance of home is conducive to work productivity and once connected by efficient broadband Sara's optimum work context and her *home body* personality preference can be achieved. She also mentions how the presence of her husband (who also works at home), a deep personal relationship, is one of the reasons for her choice.

Saul's company is based in the NTP, but he lives in C---, about 100 km away, because of family reasons: his first wife is based there with their 2 kids and his second wife, also with kids of her own, has a job there. Saul's work practices are highly mobile not only because of the nature of his job, but also because of his personal situation.

If I'm travelling, I take my work with me if I can at all. So I might, say work a Tuesday in the National Technology Park (...) have meetings there, stay Tuesday night, work Wednesday in the hotel or in the office, and work, come on down to C--- maybe late on Wednesday or on Thursday morning, you know? (Saul)

His decision to use his home as workplace for some days, and to work at headquarters on other days is connected to his personal life strategies. This also means creating a temporary work place in the hotel he stays at on the days when he is at headquarters.

The motivation to move a significantly long distance away from home and office could also be personal and similarly requires work strategies to be adapted around that place. For example, Angela spent an entire summer in Spain so that her son could learn Spanish.

I was (...) just outside Malaga. So our day was pretty much the same as it would have been here, as in the school had very good wireless connections. So when he [*Angela's son*] was in class from 8 to 12, I would have done my day's work but done it in half a day. And then in the afternoon, he would have been off with activities with his friends, and then my nine-year-old daughter, my mother-in-law and extended family came out for different periods, so we kind of had our holiday then in the afternoon (Angela)

In the interview she goes on to explain how there here were issues in communicating effectively with the rest of the team back at headquarters, particularly when trying to collaboratively solve a problem. Nonetheless she was pleased with her decision as it was made for important family reasons and she arranged her work strategy to fit around that. Angela also talks about her average day when she is at the NTP, and how she also moves her work between office and home.

I find what I have to do at home is...I have to say that there's one particular room that's work only. So it's kind of like an office. And when I close that door, it has to be a bit like closing the door here, because the danger is (...) sometimes you will just, you know, you might be doing, you know, something family, and you say, OK, I'll just go in for ten minutes and I'll check email. Now ten minutes becomes an hour and an hour can become, you know, you can get dragged into it (Angela)

Here we see that Angela has spatially confined her work to one room while she is at home, and her strategy of balancing between work and life relies on the physical configuration of the place in order to keep a definite separation. Angela chooses to do work at home, but closing the door to her home office means dedicating herself to family: although her work is in a room nearby she can keep work activities separate from her personal life at certain times.

Nancy, head of marketing for a green technology company, often increases her spatial mobility by extending business trips with days working at her boyfriend's house in the city in order to spend more time with him.

Yeah, to see my boyfriend, yeah. I tend to go up more, partially because, well sometimes I'm up in the city anyway for business, or for work, sorry. We're sponsored by Enterprise Initiative and so often we have meetings with them. So if I'm up in the city anyway for a meeting on a Thursday or a Friday, I would stay over (Nancy)

However, staying overnight in the city makes planning more difficult. Nancy goes on to explain how her decision to work from her boyfriend's house leads to extra planning in order to make sure that everything she needs to do her work is with her.

I had a meeting in the city on a Thursday, and I asked could I work from [boyfriend's] home on the Friday, which was no problem (...). And I just had to kind of go through my desk and make sure that I had all my stuff, and then take the laptop and, you know, that (...) It would kind of scupper things if I went, oh damn, the thing that I need is down in the Technology Park, you know (Nancy)

For some of our participants, work and life are fluidly negotiated while for others work is done at home to facilitate family demands: it can be characterized by further planning and be managed by defining boundaries. In some cases these different approaches are defined in terms of personal preferences and in others they are required because of the specific needs of children or partners. However, all these examples demonstrate the ways in which the places described by participants are invested by complex blends of work and life relationships. These blends are experienced as an opportunity for some, and a constraint for others: overall, they highlight how mobility is very often not only work-related mobility; that places matter for professional and personal relationships and, subsequently; that the range of interactions that mobile workers perform on the move are linked to both personal and professional considerations.

6. Discussion and Conclusions

In the previous sections we have shown examples of how focusing on *where* mobile professionals conduct their practices can reveal important aspects of mobile work and life. The data highlights how, in order to understand mobility more richly, it can be useful to extend accounts of tasks and practices by looking at the context of activity. The notion of place helped in this analysis as it allowed us to consider explicitly the physical context of interaction as a blend of structural characteristics and human experience. We argued that place is socially constructed and is therefore an important consideration in portraying how people do mobility with respect to collaborators and other stakeholders. The data show that places of work are essentially connected to social and collaborative relationships and that their meaning also emerges from such relationships. Jack, Jonathan and Kate all explain how their decision to do work at their company's headquarters although they could work as easily from another location is linked to their understanding of how important being in that place with co-workers is to establish a good partnership with them. Their motivation is about working on collaborative tasks, but also on establishing and maintaining a positive personal relationship with their co-workers.

Moving to other locations is also socially motivated: Jonathan talks about the many stakeholders that he physically travels to ensure face-to-face contact is maintained and conveying the importance of being there with them. Jack, an experienced manager of international projects, has developed a keen sense of the importance of his presence at particular places for the success of the project.

Moreover, the trajectory between one place of work and another and the ways in which mobility is physically accomplished also carry social meanings: Saul explains how his choice of travelling by train rather than by car is about having time to concentrate on the person he will meet once he arrives in the city, and on the work to be done together. This is part of a larger strategy for managing places of work in relation to collaborators and other stakeholders, and directly links with our second point: that places are expressive of organizational needs and values. Where the company is placed in the first instance certainly has a meaning for potential customers: we see in our data that the NTP is chosen not simply for its business infrastructure but also because it makes it possible to associate an organization with values of innovation and professionalism. Besides this institutional concern, individuals see their place of work as representative of the mission of their organization: Charles identifies working at home as representing his availability to customers beyond the office (intended as a confined unit of space and of time). On the other hand, Angela physically travels to customer sites to show the dedication of her company to its customers. The chosen places of work may be different in these two examples, however they both show how organizational concerns drive the decision to be somewhere in particular. In another example, Dan talks about how being somewhere with co-workers is a way to build an organizational culture internally: this example shows how organizational concerns related to place are not only directed to clients and external partners, but also to the team of co-workers within the same company.

The final set of examples relates to what Büscher and Urry [4] refer to as the making of work and non-work worlds through mobility: places of work carry with them life concerns, sometimes in more pronounced ways than others. The choice of being in a particular place may be entirely dependent on life demands, and in that case the environment is adapted to fit work requirements. In other situations, places are a blend of work and life and certain strategies need to be put in place to maintain balance between them and to successfully achieve both professional and personal goals.

Overall, we have shown how *where* people do mobility matters and that the *where* is almost always connected to social relationships. We see this as a contribution towards redefining mobility as a spectrum notion: mobility cannot be seen as a reified concept but as a set of possibilities. It reconfigures itself in manifold ways through practice, and reconfigurations of spatial, temporal and informational mobility emerge through different practices. Technology is an essential part of the practice and discourse of knowledge workers: it is not just about functionality, but about the *style* of work and life that technology mediates. The study presented in this chapter contributes to current research on understanding and designing mobile collaborative systems by pointing out how social concerns surrounding mobile work go beyond the cooperative execution of tasks and performance of collaborative activities and by highlighting how understanding the interrelationships between place and mobility is essential to grasp the social and collaborative motivations of movement. It also highlights the increasing significance of place in decisions about where mobile work is to be done as this work is increasingly made

mobile by the affordances of technologies and associated newly imagined combinations of work and life.

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References

- [1] Bellotti, V. and Bly, S. (1996). Walking away from the desktop computer: distributed collaboration and mobility in a product design team. *Proc. of CSCW 96*. ACM Press, 209-218.
- [2] Benson, J. and Brown, M (2007). Knowledge Workers: What keeps them committed, what turns them away. *Work, Employment and Society*, 21 (1), 121-141.
- [3] Brown, B. and O'Hara, K. (2003). Place as a practical concern of mobile workers. *Environment and Planning A*, 35(9), 1565 – 1587.
- [4] Büscher, M. and Urry, J. (2009). Mobile Methods and the Empirical. *European Journal of Social Theory*, 12 (1), 99-116.
- [5] Churchill, E. F. and Wakeford, N. (2001). Framing Mobile Collaboration and Mobile Technologies. In Brown, B., Green, N., and Harper, R. (Eds), *Wireless world: social and interactional implications of wireless technology*. London: Springer.
- [6] Ciolfi, L. and Bannon, L.J. (2005). Space, place and the design of technologically enhanced physical environments. In Turner, P. and E. Davenport (eds.), *Space, Spatiality and Technology* (pp. 217-232). London: Springer.
- [7] Cohen, R. L. (2010). Rethinking 'mobile work': boundaries of space, time and social relation in the working lives of mobile hairstylists. *Work, Employment and Society*, 24(1), 65-84.
- [8] Cousins, K.C. and Robey, D. (2005). Human Agency in a Wireless World: Patterns of Technology Use in Nomadic Computing Environments. *Information and Organization*, 15(2), 151-180.
- [9] Davis, G.B. (2002). Anytime/anyplace Computing And the Future of Knowledge Work. *Communications of the ACM*, 45(12), 67-73.
- [10] Divitini, M., Farshchlan, B.A. and Samset, H. (2004). UbiCollab: collaboration support for mobile users. *Proceedings of SAC'04* (pp. 1191-1195). New York: ACM.
- [11] Gutwin, C. and Greenberg, S. (1996). Workspace awareness for groupware. *Proceedings of CHI'96* (pp. 208-209). New York: ACM.
- [12] Harrison, S. and Dourish, P. (1996). Re-Place-ing Space: The Roles of Place and Space in Collaborative Systems. *Proceedings of CSCW'96* (pp. 67-76). New York: ACM.

- [13] Izadi, S., Coutinho, P., Rodden, T. and Smith, G. (2002). The FUSE Platform: Supporting Ubiquitous Collaboration Within Diverse Mobile Environments. *Automated Software Engineering*, 9(2), 167-186.
- [14] Kleinrock, L. (1996). Nomadicity: Anytime, Anywhere in a Disconnected World. *Mobile Networks and Applications*, 1(4), 351-357.
- [15] Kristoffersen, S. and Ljungberg, F. (1999). Making Place to Make IT Work: Empirical Explorations of HCI for Mobile CSCW. *Proc. of GROUP'99* (pp. 276–285). New York: ACM Press.
- [16] Licoppe, C. (2004). ‘Connected’ Presence: The emergence of a new repertoire for managing social relationships in a changing communication technoscape. *Environment and Planning D: Society and Space*, 22, 135-156.
- [17] Luff, P. and Heath, C. (1998). Mobility in Collaboration. *Proc. of CSCW '98* (pp. 305-314). New York: ACM Press.
- [18] Mark, G. and Su, N.M. (2010). Making Infrastructure Visible for Nomadic Work. *Journal of Pervasive and Mobile Computing*, 6(3), 312-323.
- [19] Morrison, A., Mulloni, A., Lemmelä, S., Oulasvirta, A., Jacucci, G., Peltonen, P., Schmalstieg, D. and Regenbrecht, H. (2011). Mobile Augmented Reality: Collaborative use of mobile augmented reality with paper maps. *Computers and Graphics*, 35(4), 789-799.
- [20] Olson, G and Olson, J. (2000). Distance Matters. *Journal of Human-Computer Interaction*, 15(2), 139-178.
- [21] Perry, M., O'Hara, K., Sellen, A., Brown, B., and Harper, R. (2001). Dealing with Mobility: Understanding Access Anytime, Anywhere. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 8(4), 323-347.
- [22] Rossitto, C. and Eklundh, K.S. (2007). Managing Work at several palces: a case of project work in a nomadic group of students. *Proc. Of ECCE 2011*. DOI: [10.1145/1362550.1362562](https://doi.org/10.1145/1362550.1362562) Accessed 30 November 2011
- [23] Sørensen, C. (2011). *Enterprise Mobility. Tiny Technology with Global Impact on Work*. London: Palgrave Macmillan.
- [24] Thompson, P, Warhurst, C. and Callaghan, G. (2001). Ignorant Theory and Knowledgeable Workers: Interrogating the Connections between Knowledge Skills and Services. *Journal of Management Studies*, 38:7, 923-942.
- [25] Urry, J. (2007). *Mobilities*. London: Polity.
- [26] Weilenmann, A. (2001). Negotiating Use: Making Sense of Mobile Technology. *Personal and Ubiquitous Computing*, 5(2), 137-145.
- [27] Wiberg, M. and Ljungberg, F. (1999). Exploring the vision of anytime, anywhere in the context of mobile work. In Malhotra, Y. (Ed.). *Knowledge Management and Virtual Organizations* (pp. 157-169). Hershey, PA: Idea Group Publishing.