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COORDINATING FACE-TO-FACE MEETINGS IN MOBILE NETWORK SOCIETIES

This exploratory article describes and develops theoretical notions of how coordination takes place within mobile network societies, that is, societies where travel, ties at-a-distance, email and mobile communications are widespread. The article brings together studies of travel, communications and social networks through a particular focus upon the multiple processes of coordination. We specifically examine how communications are used to coordinate meetings between friends and family members, and how these 'coordination technologies' have in part changed the nature of arrangements to meet and conduct face-to-face meetings. We show striking changes in technologies and cultures of coordination — a shift from punctuality effected through clock time to a flexible and perpetual coordination effected through email and mobiles. This empirical research addresses specifically located embodied practices of coordinating meetings and it illustrates how coordination is a practical, relational accomplishment and how coordination cultures are variable amongst young adults.

Keywords   Travel; coordination; communications; social meetings; friends and family

Introduction

Modern societies are increasingly mobile and networked. Research shows great increases in travel, in communications through mobile phone calls, text messaging and emailing and the spatial reach of social networks (Urry 2003, 2007; Axhausen 2005; Wellman *et al.* 2006). People increasingly have ties at-a-distance and they socialize with these ties through frequent phone calls, text messages, email and occasional visits (that often involve substantial travel). When social networks are stretched out and far-away connections are common, it can be

difficult to meet spontaneously and frequently. Face-to-face meetings rather have to be coordinated and this requires 'coordination technologies' such as mobile phones and email accounts.

This article considers how the greater spatial scale and personalisation of networks makes more important those 'coordination technologies' that facilitate travel and ensure that face-to-face meetings occur. More specifically we examine how phone calls, text messages and emails are used to coordinate face-to-face meetings between distanced friends and family members, and how these 'coordination technologies' have in part changed the nature of arrangements to meet. Most research focuses upon one separate 'mobility', such as passenger transport or mobile telephony or the Internet, and generalizes from that. By contrast, this article brings together studies of travel, communications and social networks through a particular focus upon coordination. While there are many studies of mobile phone use (Katz & Aakhus 2002; Geser 2004; Licoppe 2004; Ling 2004; Goggin 2006; Castells *et al.* 2007) and the Internet (Miller & Slater 2000; Wellman 2002), few have examined the interplay between the two, and between communications, travel and social networks (but see Green 2002; Urry 2003). Little research has paid attention to networking practices involved in coordinating face-to-face meetings (but see Ling & Yttri 2002; Ling 2004; Jarvis 2005). In particular, this article shows how changing network geographies and communication affordances enable, and indeed call for, new practices of coordinating meetings with friends and family members. This article elaborates upon Ling's notion of 'micro-coordination' by mobile phones on the move through showing how much coordination also involves place-bound emailing and mobile emails, and this is especially the case when group planning and 'long distance' travel are required. Ling's research mainly highlights fairly localised coordination, but we highlight how much coordination *also* involves long distance communication.

We begin with discussing classical sociologist Simmel and his analysis of early twentieth century public travel and its linking with the clock and the watch. We do so because Simmel was one of the first to discuss how new configurations of proximity, distance and movement in the modern city called for new ways of coordinating co-presence. Simmel demonstrates how individualization makes people more dependent upon 'watches' and what we call 'clock time punctuality'. Then we review literature that suggests that such 'clock-time punctuality' is to some extent supplemented by a 'connected coordination' effected through mobiles and email.

We then elaborate on these discussions by reporting from our exploratory research into social networks, meetings, travel and communications. This article is part of a larger research project that explores the spatiality of social networks and networking in mobile networked societies. It is based upon 24 in-depth interviews with young professionals in UK. While the article relies upon interview data gathered from a limited sample, these interviews are

comprehensive and enable us to report new empirical findings and develop distinct theoretical notions. We conclude by discussing how this small-scale study can inspire future research.

Clock time punctuality

Simmel brings out how in the modern city, a new precision comes to be necessary (see Larsen *et al.* 2006, ch. 3). Agreements and arrangements need unambiguousness in timing and location. Everyday mobility in early twenty-century cities such as Berlin was above all by public transport, which meant that punctuality had to be certain. Life in the mobile onrushing city presupposes punctuality and this is reflected according to Simmel by the 'universal diffusion of pocket watches' (1997, p. 177). Simmel argues that the 'relationships and affairs of the typical metropolitan usually are so varied and complex that without the strictest punctuality in promises and services the whole structure would break down into an inextricable chaos' (1997, p. 177). This necessity for punctuality: 'is brought about by the aggregation of so many people with such differentiated interests who must integrate their relations and activities into a highly complex organism' (1997, p. 177). In particular, Simmel asserts that:

> If all clocks and watches in Berlin would suddenly go wrong in different ways, even if only by one hour, all economic life and communication of the city would be disrupted for a long time. Thus, the technique of metropolitan life is unimaginable without the most punctual integration of all activities and mutual relations into a stable and impersonal time schedule
> (1997, p. 177)

Thus meetings and activities have to be punctual, timetabled, rational, a system or 'structure of the highest impersonality' often involving much distance-keeping politeness (Simmel 1997, p.178). This 'system-ness' of mobility is crucial and results in the individual becoming 'a mere cog in an enormous organization of things and powers'; as a result 'life is made infinitely easy for the personality in that stimulations, interests, uses of time and consciousness are offered to it from all sides' (Simmel 1997, p. 184). Simmel tellingly notes how as a consequence: '[T]hey carry the person as if in a stream, and one needs hardly to swim for oneself' (Simmel 1997, p. 184). Simmel thus highlights how modern cities and 'individualisation' make people depend upon complex systems and precise, inflexible time.

   In the time of pocket watches, public transport and landlines, meetings had to be organised in painstaking detail and people had to know their route and to arrive on time in the right place, to meet up successfully. These technologies were equally inflexible and part of the same pre-mobile phone coordination system that

we characterise as 'clock time punctuality'. The objective, unbending time of pocket watches determined whether people arrived successfully. The next section suggests that 'clock time punctuality' is being supplemented – but not replaced – by what we might term 'flexible punctuality' effected through mobile telephony.

Flexible punctuality

Mobile phones today are as ubiquitous as watches were a century ago. In 2004, nine out of ten people in the EU countries (and Norway) are mobile phone users (Castells *et al.* 2007). Virtually all teenagers and young adults own a mobile (Ling 2004, p. 16). In UK there are eleven mobile phone subscriptions for every ten people (108 per cent penetration rate!), and ownership is not related to income or class.[1] Similar to pocket watches, mobile phones are fitted to the body, light-weight and always at-hand.

Mobile phone cultures have profound implications for how coordination takes place and to some extent challenge 'clock-time punctuality'. As Ling says:

> Arguably, the greatest social consequence arising from the adoption of the mobile phone is that it challenges mechanical timekeeping as a way of coordinating everyday activities. It is possible to say that the mobile phone has completed the automobile revolution. Where the automobile allows flexible transportation, up until the rise of mobile telephony there has been no similar improvement in the real-time ability to coordinate movements. When you were en route, you were in incommunicado. The mobile phone completes the circle
>
> (2004, p. 69)

By comparison with pocket watches and landlines, mobiles afford flexible and mobile meeting cultures less dictated by physical places, fixed appointments and the fixities of clock-time. Appointments are still crucial but now they are negotiable on the move. While landlines allow long distance coordination, people could only reach each other from their homes (or work places). As Wellman argues, landlines represent 'place-to-place' connectivity, while mobiles afford 'person-to-person' connectivity, or 'networked individualism', that 'suits and reinforces mobile lifestyles and physically dispersed relationships' (2001, p. 239). 'The person has become the portal' (Wellman 2001, p. 238). Each person within a 'mobile phone culture' is, we might say, the engineer of his/her own ties and networks, and always connected (technologies of batteries and masts permitting). Or as Licoppe reports: 'the mobile phone is portable, to the extent of seeming to be an extension of its owner, a personal object constantly there, at hand … Wherever they go or drive, individuals seem to carry their

network of connections which could be activated telephonically at any moment'
(2004, p. 139). Mobiles free people from spatial fixity and is one of the most
common items and used taken on a journey. Trains, buses and cars are no
longer characterized by 'isolation' as when Simmel wrote, but by connectivity
and 'communicative travel' (Laurier 2004; Lyons & Urry 2005). Widespread
mobile phone ownership enables connectivity in the midst of absence, distance
and disconnection. Phone calls on the move and impromptu text messages are
crucial networking practices.

    Ling argues that mobile phones afford 'micro-coordination', that is, flexible
and instant communication often on the move:

> Micro coordination is the nuanced management of social interaction. Micro
> coordination can be seen in the redirection of trips that have already started,
> it can be seen in the iterative agreement as to when and where we can meet
> friends, and it can be seen, for example, in the ability to call ahead when we
> are late to an appointment.
>
> (2004, p. 70)

'Micro-coordination' is thus primarily a mobile practice that enables flexible
coordination of meetings in the *near* future. The link between mobility and
ongoing, flexible coordination is even more evident in Castells *et al*.'s notion
of 'rendezvous': 'In the practice of rendezvousing, people walk or travel
toward their destination, while deciding which destination is it is going to be
on the basis of that instant communication in which they are engaged' (2007,
p. 172). It seems that there is a shift from the punctual mode emphasized by
Simmel at the beginning of the twentieth century to a more fluid and pervasive
mode of coordination as times, spaces and participants are (re)negotiated on the
move. Whereas coordination traditionally was finalised with the departure for
the meeting, it can now also be accomplished on the move by mobiles. People
can bend clock-time by informing that they are running late or by suggesting
a new place or a later time to meet. Rheingold calls this 'softening of time'
(2002). This also means that people can become dependent upon their mobile
phones. As Ito puts it: 'To not have a *keitai* [mobile phone] is to walking
blind, disconnected from just-in-time information on where and when you are
in the social networks of time and space' (cited in Castells *et al*. 2007,
pp. 172–173).

    In addition to such 'micro-coordination', mobile phones can coordinate
'underground' social gatherings or 'smart mobs' (Rheingold 2002) with incred-
ible speed and without much previous coordination. There are emergent
phenomena which possess some similarities with flocks of birds: 'Like a well-
choreographed dance troupe, the birds veer to the left in unison. . .The flock is
organized without an organizer, coordinated without a coordinator' (Resnick
1997, p. 3). Circulating text messages inform individuals and groups to meet

at a specific place at a specific time in the very near future, and to re-circulate the message. Rheingold calls this 'swarming'; and it is accomplished through taking

> advantage of one of the unique features of texting technology – the ease of forwarding jokes, rumours, and chain letters. Although it requires effort to compose messages on mobile telephone keypads, only a few thumb strokes are required to forward messages to four friends or everybody in your telephone's address book.
>
> (2003, p. 159)

'Swarming' engender new kinds of crowd that have significant roles in contemporary politics, as in the Battle of Seattle in 1999, the change of government in the Philippines in 2001, the UK fuel protest in 2000, the many critical mass cycle rallies, and the anti-globalisation movement (Rheingold 2002, ch. 7).

What is less discussed in the literature is how computers, the Internet and email increasingly also afford new flexible coordination cultures, especially in relation to group coordination. This is partly because more and more people have email accounts and access to the internet at home and/or work. Around 57 per cent of UK households had internet access in early 2006[2] and 62.3 per cent of the UK population are internet users, and it is predominately older people and people with no or little education that lack this 'access'[3] (and see our research discussed below).

Unlike traditional mail delivered at one's home, emails are accessible wherever the receiver has access to a computer with internet connection. Since emails – unlike 'intrusive' phone calls – are asynchronous, people can network around their schedule rather than the other way round. Particularly, emails are perfect tools for distant and large-scale networking because they travel equally fast and equally cheaply to distant and multiple destinations as to nearby and single ones, so news, gossip and jokes travel can travel in a 'small-world' way (see Kibby 2005; Larsen *et al.* 2006). Email is more flexible than text messages and mobile phone calls when it comes to group coordination. Ling highlights the limitation of 'micro-coordination' by mobiles (although this would not be true of text messaging):

> For example, if five friends agreed to meet on a Friday, the negotiation of the specific time and time would mean that *one* person has to call the other four and confirm the time. However, if one of the others cannot make it at the specific time or suggests another place to meet, then the whole round of calls has to be made again.
>
> (2004, p. 77)

This actually means that 'micro coordination' by mobiles can turn out *inflexible* when more than a few people are involved because the whole group cannot talk

at the same time. The situation is different with coordination by email as every-one on the email list receives the same information and at the same time, and if one or more people want to change the plan, they can 'reply to all' rather than contacting each of them one by one, and they can respond in the same way. This is discussed empirically below.

This section has conceptually discussed how mobile phones and email afford more flexible, instantaneous and mobile coordination compared with when Simmel wrote. Rather than 'clock time punctuality' we have a situation where venue, time and group can be negotiated. This system is liberating *and* coercive. As Townsend says:

> The old schedule of minutes, hours, days, and weeks becomes shattered into a constant stream of negotiations, reconfigurations, and rescheduling . . . Individuals live in this phonespace [and emailscape] they can never let it go, because it is their primary link to the temporally, spatially fragmented network of friends and colleagues they have constructed for themselves.
>
> (2000, p. 6)

In this sense, people are still, as Simmel would say, 'a mere cog in an enormous organization of things and powers' (Sawhney 2004). With greater 'individualiza-tion' and 'flexibility', communications is a necessary evil, as we will now demon-strate empirically by addressing specifically located embodied *practices* of coordinating face-to-face co-presence.

Researching coordination

The sample is a strategic one of young professionals that differ with regard to education, salary and expected travel and communication patterns. These are architects, employees in fitness centres and security staff (see Larsen *et al.* 2006, ch. 5). The average age of the sample is 28.5 years. We interview young adults because most mobile phone research focuses upon teenagers (Ling & Yttri 2002) and we know little as to adults coordinate their social life.

All architects have university degrees and their annual income is £28,000. Of the employees in fitness centres four work in sales; two are receptionists; and three work as fitness instructors; three have managerial positions; and the man-agers and the sales staff are earning substantially more than receptionists. Three have university degrees. Finally, the sample consists of three porters and three night club doormen that earn just more £10,000 on average. The mean salary of the whole sample is just above £20,000. This article does not provide a systematic comparison between the three occupations/industries but it does highlight how income, educational biography and access to communications at

work have consequences for peoples' coordination practices. The respondents were recruited by email and none were known by the research team.

The interviews took place in spring 2005. All interviewees filled in two questionnaires and undertook a lengthy interview based upon a detailed interview guide to make the interviews systematic and comparable. The interviews establish their residential mobility, their access to communications, the number of journeys they made in 2004 in the UK and abroad, the location of their 'important' friends and family members, and how often they stay in contact by mail, phone, email, text message and face-to-face meetings, and how much travel and planning this involves. Particularly, the respondents describe how they coordinate their latest longer journeys to visit or meet up with friends or family members. We explore how they coordinate such trips and face-to-face meetings *technically* (mobiles, text messages, emails, etc.), *spatially* (at work, at home, on the move) and *temporally* (during work hours, at breaks, in the evenings, etc.).

The interviews were transcribed and systematically coded according to themes, and all quantifiable data were analyzed in a statistical database designed for this project. This article discusses some quantitative findings but is mainly concerned with the respondents' qualitative accounts of their *common* coordination practices.

Network distances

We begin by highlighting that respondents' social networks are geographically stretched out and mobile. They live on average almost 400 km from each of their identified 'most important people'. When networks are 'stretched' people need to travel to maintain their networks and are thus dependent upon cars or public transport. Indeed on average per year, the respondents make almost 10 UK leisure journeys (of more than 100 miles) primarily to visit significant others and attend 'obligatory' Christmas parties, birthdays, weddings and funerals. The architects travel significantly more than the other occupations, which reflect that access to 'pleasurable travel' is unevenly distributed in modern societies (Lethbridge 2002). For instance, the architects made on average 15.6 domestic journeys, while the figure for those in the fitness industry are 4.6 and for the security staff 6.4. The architects travel significantly more than the two other subgroups because they have higher incomes and more distant friends and family members (see Larsen *et al.* 2006, ch. 7).

Access to communications

We now consider to what degree their lives can be said to be 'networked'. As expected given the very high penetration rate of mobile phones in the UK, all the respondents own a mobile and so do all their friends and most of their

family members. Most have them 'turned on' (or on 'silence') for 24 hours and they feel incomplete if leaving for a journey without them:

> I'll know about it if it's not there because you know you can't leave the house and you think something's missing. It's got to be with me definitely. It's got to be with me.
>
> (Male sales advisor, late twenties)

Not unlike teenagers, these young adults describe their mobile phones as prosthetic, as physically coterminous with their bodies. They have become a natural part of their body, always at-hand (Fortunati 2005). Respondents describe how if they misplace their mobiles they are 'lost' in the sense of being disabled: physically, because they have lost the now 'natural' ability to talk with absent others; and socially, because they are disconnected virtually from their social networks (few of them remember more than a few of their friends' phone numbers, so a landline phone will be of little help).

Whereas phone calls and text messages are part of all the respondents' everyday communication practices, this is not the case with the internet and emailing. Each day the architects email professionally and socially. By comparison, the other 'professions/industries' email less often, both professionally and socially. The architects explain that they email much because they have 'private' work emails and 'access' to work computers with internet connection. Much of their *private* emailing takes place at work during work hours:

> I've got Internet access at work . . . I can use that any time. It's supposed to be for work but we all use it for other things as well. I've got Internet at home but not broadband though . . . because we have both got Internet at work so we don't spend too much on it.
>
> (Male architect, late twenties)

The architects email less in the evenings and weekends because few are much on-line and they can speak freely on the phone; they use mobile phones to reach each other instantly. The rest of the respondents have no internet 'access' at work and as a result they email less, only a few times a week. These respondents generally find email slow and inconvenient because it is not as ready at-hand as mobile phones. They prefer to use phone calls and especially text messages to coordinate their social life.

Mobiles and coordination on the move

The significance of mobile phones and email for the coordination of travel and co-presence are striking. On the one hand this research shows how mobile

phones are used to secure what Ling calls 'micro-coordination'. All three professions, but especially the non-architects, extensively use mobiles to coordinate meetings with friends and family members. The research also shows how 'clock-time punctuality' of pocket/wrist watches is increasingly supplemented by a negotiated time of mobiles. They explain how their network of friends often only makes loose prior arrangements with regard to time; they use mobiles to work out 'flexible punctuality'. As one female architect says:

> Sometimes I won't arrange a time. . . I mean obviously a vague like I'll meet you in there, but then I'd make a text as I get a taxi and say I'll be there in 10 minutes. . .
>
> (Female, early thirties)

And another says:

> Yeah. It's usually a loose arrangement, say meet up roughly 8 o'clock in this bar, but most of the time that changes. Because you've got mobiles, you can do that . . . 'I'm running late or we've decided to go to a different bar, meet us in this bar or whatever'.
>
> (Female receptionist, early twenties)

When these young adults arrange to 'go out' they set a day but they seldom arrange a specific time. Rather, they agree to 'speak' on that day to finalise the finer details and that will be followed up by a last-minute call or text confirming that one is leaving the house or stuck in traffic or has found a better place to meet in.

Sometimes mobile phones seem to rule out the need for preceding coordination even when much travel is required and many people from different places need to be assembled at a fairly specific time. One male architect explains how little pre-travel coordination that went into meeting up with his network of Liverpool FC supporters despite the fact that they came from different places, have no traditional meeting place and had to be at the match at an exact time:

> Saturday Liverpool played Manchester United. A whole group of us met up . . . probably about eight. . . And these people were all coming from different cities . . . and we'd made no arrangements. I remember thinking that 'oh all I know is that they are coming to the match'. So the first sign I hear of anyone going to be in the city is a text message at about half past ten saying we're in Wetherspoons pub, where are you, because otherwise they could be in any pub, we don't have a regular place to meet. So I have a text from there, so I get the train into town, other people start getting the same kind of text messages, and before you know it, everyone's met at the same place. And so without the mobile you would really struggle . . .
>
> (Male architect, early thirties)

While there is little pre-travel coordination there is plenty of coordinating negotiation on the move and throughout the day, and this ad hoc coordination take place through various hubs rather than one specific coordinator. The architect also highlights how it would be a disaster to forget to bring the mobile or let it run out of battery power. We call this 'perpetual coordination'. This example illustrates how 'perpetual coordination' is coercive since this kind of negotiation on the move is non-negotiable. Paraphrasing Simmel, we may note how most meetings will fail to happen if mobiles all ran out of battery power!

Mobiles and coordination during meetings

This research also highlights how 'micro-coordination' occurs when people have already met up; and this is another aspect of 'perpetual coordination'. Some respondents explain that they do not go out with one group but rather a larger mobile phone connected network of both strong and weak ties. They text each other about 'happening' places, parties and interesting people, and they are therefore likely to meet with people that they did not begin the meeting with:

> If I'm in one bar and they're in another, I might text them and say it's not very good here, really quiet or really busy, we'll come . . . where are you and you'll go oh I'm in Varsity and it's really, really good. So I'll go to Varsity then. It's just like having a constant network between all of you.
>
> (Male doorman, early twenties)

Another respondent says:

> If I'm out in the pub round here, there's a good chance that somebody will ring me up from another pub across town, and 'say oh yeah we're having a drink' . . . or somebody coming into town and wants to meet up with you.
>
> (Male architect, early thirties)

'Perpetual coordination' means that coordination become 'perpetual' so distinctions between presence and absence, attention and inattention, socialising and coordinating, partially dissolve. Goffman argued that 'co-presence renders persons uniquely accessible, available, and subject to one another' (1963, p. 22), but it seems that many young adults social meetings are now typified by brief moments of 'inattention' and 'mobilities' as phone calls are answered, text messages are sent, new faces arrive while others leave.

Email and coordination at work

In addition to such localised 'micro-coordination' by mobile phones, this research illuminates the significance of the internet and email in coordinating co-presence, something not much explored in other research. Much meeting coordination involves not only mobile phone calls and text messages both also place-bound emailing (not much use of hotspots and place-independent blackberries/iMode phones). This is especially the case with long distance travel and group coordination. Often the initial coordination is by email correspondence with mobiles taking over when the journey begins:

> It was a long weekend. The date was arranged by email but [not] the finer details ... when I was coming down, I'd be texting my brother and my friends to say can you pick me up from here. If he can't do it, I'll text the next one and so on ... So I spent five and a half hours going there, so all the time while I was on the train I was texting and talking.
>
> (Male sales advisor, late twenties)

When we asked the respondents to describe a 'typical' private email many stressed that they were often about coordinating co-presence and travel:

> Today there was an acknowledgment of the Travel Lodge booking that I did. Another one was we've had a tournament cancelled and obviously it was distributed to the team ... another one I got today ... I always get together with my girlfriends from school on a Thursday evening, so it was making arrangement ... I don't chat, I don't gossip on email. It's all arranging.
>
> (Female architect, early thirties)

For this female architect, who coaches a youth sports team, the typical email involves coordination. She uses the Internet to book flights and accommodation, arrange matches across the UK and coordinate meetings with local friends.

However, it was mainly the architects that coordinate co-presence by email, which reflects how they email much more frequently than the other groups. These young architects coordinate much of their mobile life through email during *work* hours because they have easy access to wired computers and private work emails at work *and* their ties have similar access (this illustrates how communications are *relational* properties).

Despite working in open office landscapes they can make private communications because emailing – unlike text messaging and especially phone calls phoning – is covert. A much travelled architect says:

> You would be on the phone and people are watching the time you are spend-
> ing talking . . . Whereas with email it is a lot more covert and I think people
> spend a lot more time on the email, even I do. You know, you are all sup-
> posed to be working but you're all communicating . . . At the moment I'm
> trying to arrange a snowboarding holiday, and there's about five or six of us
> all over the country, and you can have a little chat during the day. It's almost
> like you're down the pub having a bit of a social chat over a beer.
>
> (Male architect, early thirties)

While appearing to work he has a 'big social event' to organise with dispersed
friends who also chat and coordinate while at work. Here the distinction
between coordination and meeting blurs as the coordination event itself produces
communicative co-presence to such an extent that 'it's almost like you're down
the pub having a bit of a social chat over a beer'.

While not all of them describe coordination events in such pleasurable
terms, the architects stress that emailing (at work) is practical when many
people are involved and long distance travel is required:

> You do find a lot of emails are for weekends that you organise . . . Yesterday I
> had an email because my wife and me are organising a weekend to go away to
> the Cotswolds, so we are renting a cottage. There's six of us, eight of us
> going. So obviously there's a lot of emails coming in, being sent round,
> saying I can do such and such a weekend . . . And then you get one back
> saying it's going to cost us, you know, £100 each for the weekend, can
> you send the money, post a cheque to me.
>
> (Male architect, late twenties)

Along similar lines, another architect says:

> It makes it easier to meet up with people because, there is less effort
> involved in writing a small message and sending it out to a number of
> people in terms of coordination and getting people together . . . For
> instance, when it was my stag do a couple of years ago my best man did
> it all by email and it worked wonderfully well because you get this kind
> of coordination of dates when people are available, when they are not . . .
>
> (Male architect, early thirties)

The architects stress how emails are time-effective and not completely depended
on one person, a central hub, since one message can be sent to multiple people
and they can then reply to the whole network with additional information,
without distorting or deleting the initial or succeeding emails. No information
is lost in this process. All information about dates and venues are thus 'archived'
(if not deleted) and accessible for recollection in mailboxes, preventing much

additional coordination at a later stage. Everybody within this email network thus shares and has equal access to the same information and we may therefore hypothesize that the task of organizing is more equally distributed since it does not rely on a central hub, but is a form of coordination-without-a-coordinator, what we might term 'decentralised coordination'.

This ability of email to travel to several places on one journey contrasts with telephone calls that normally involve one-to-one talk. Group coordination by phone conversation requires a central hub where all information passes through, so one person is in charge of synchronizing busy diaries and fragmented travel routes. This is a time-consuming and not cost-free, as each link often calls, or has to be called, more than once so as to achieve coordination. While text messages can also travel to multiple place on one journey and assemble huge crowds in little time, they are also to some extent reliant on such 'centralised coordination', since the receivers can also only reply to the person that 'posted' it and not the original author/distributor nor any of the other receivers (their names and numbers are not revealed as is the case with email). This is well illustrated in the following example:

> Well last week I organised twenty of us to go to a greyhound meeting. I didn't speak to one person; it was all done by text message. I didn't speak to one person ... I just write a message, sent it all to everyone, I said if you want to come, send me a reply, I'll book you a ticket. Everyone replied, I booked a ticket and we all turned up and that was it.
>
> (Male doorman, early twenties)

Here it is evident how coordination by text messages relies on a central hub who writes the message, distributes it, receives all the replies and books the tickets. While this coordination event apparently went smoothly, it illustrates Ling's previously discussed point that group coordination by mobiles is often inflexible because one person has to do all the time-consuming and costly (depending on contract!) coordination.

'Perpetual coordination' is not just a question of technologies affordances and 'access' to them, but also of specific coordination practices and cultures. While email is an asynchronous medium, architects often respond to emails instantly, thereby ensuring 'perpetual coordination'. Unlike phone calls, emails do not demand immediate attention, so email is only 'instantaneous' if people are more or less continuously on-line and respond promptly to incoming messages. The architects continuously check their email account at work, so each time an arrival is announced they go to the inbox to see if it is an interesting email! So 'breaks' during the day are tied into doing one's private email since they believe that good email conduct involves quick replies so that communication is reliable.

And coordination by email is only instantaneous, when the language of emailing is fast paced and instrumental, unlike telephone conversations where the exchange of pleasantries and personal updates are expected. One architect explains why emailing is so effective at coordinating meetings:

> You don't have to talk round it. You can merely put in one line and you get an answer back in one line. There's no talking about how are you... By the time you're thinking what else you forgot to ask, and replies come back. That's the beauty of email. It is quick. Literally one line ... 'what are you doing at the weekend?' ... I can't just pick up the phone: 'What are you doing at the weekend?' I'm going to have to say: 'How are you and what have you been up to'? And you get into a full conversation.
>
> (Male architect, late twenties)

Partly along similar lines, another stresses the fast paced nature of email by comparison with writing and sending letters:

> you write emails at the drop of a hat. Like you've got five minutes to spare... 'Oh Chris has replied'. Oh I've got something to tell him and I'll just sit down and type it. You would never have spent five minutes 'oh what shall I do, I'll write a letter'. Email is not time consuming. I don't have to go and put it into an envelope, buy a stamp, post it, you know ... you send a letter and it might come back five days later with a reply. But with an email you can do a one liner and then two minutes later even though they are in Egypt they reply. It is more like a conversation.
>
> (Male architect, early thirties)

While emails can travel the world in nanoseconds, it is only when people make one line messages and reply promptly that emailing is actually fluid and flexible. The fast-paced, flexible nature of much email stems partly from its affordances but also from specific cultures of performance. Effective and fast group coordination by email thus requires that *all* network members email at work or at least check it daily elsewhere. And this is why the other professions use mobiles to coordinate their social life. As mentioned earlier, the non-architects check their email only a few times a week, making short-term coordination by email too slow. They predominately use emailing to communicate with significant others at-a-distance now and then. The doorman who organised the trip to go the greyhound meeting explains why he used text messages:

> Because I don't know if they check it [email]. It's the instant factor of it that I like more than anything, the fact that they get it straight away. They don't have to go and check their emails and I don't have to go and check mine to get it back... My phone ... beep[s], and I can sort of write down who's

coming. . . And that's why I use text messaging, because it's instant. And my phone is always with me . . . [I] use my mobile phone a million times more [than emails]. I just think it's easier, a lot easier, than logging on and . . .

(Male doorman, early twenties)

This illustrates how performances of email are variable and how not all groups use email as the principle tool of coordination.

Conclusion

Based upon existing literature and qualitative interviews, this exploratory article describes and develops theoretical notions of how coordination takes place within mobile network societies, that is, societies where travel, ties at-a-distance and email and mobile communications are widespread.

We have seen how early modern societies were coordinated through what we termed 'clock-time punctuality' effected through pocket watches. Such 'clock-time punctuality' is now increasingly 'softened' as young adults routinely change plans on the move. There are emergent cultures of what we have coined flexible punctuality and 'perpetual coordination', of young adults continually coordinating meetings, even on the move and in the company of friends. We have also developed the notion of 'centralised coordination' to illustrate how much group planning by mobiles (especially phone calls) will require some sort of central hub. By contrast we coined the notion of 'decentralised coordination' to conceptualise how email (and to a small extent text messages) afford smooth collective coordination without a central coordinator.

This study sets the agenda for new research. While this research was based upon retrospective interviews, we would gain much from real-time 'naturalistic' *observations* of coordination practices; this should involve directly observing people and their performances (a method Goffman especially undertook) as well as interviewing-while-observing. Through such 'co-present immersion', the researcher explores first-hand how coordination takes place in practice in various environments and social settings. Such research means that the researcher needs to be mobile and follow the respondents, as they move between their home, work, car, train and meeting places. Such 'mobile ethnography' is part of what we elsewhere have called 'mobile methods' (Larsen *et al.* 2006).

Another limitation of our study is the focus upon *individual* accounts of networking practices. By undertaking mobile observations and subsequent group-interviews, a group of researchers can explore how, for instance, how a group of friends 'coordinate' their next 'get together'. A further, and less resource demanding, method is to get respondents to keep time-space diaries in which respondents record when, where and how they coordinate a specific event. In

relation to these methods, the group under study could be asked to save their text messages and emails so that these can be examined by the researchers. Our study highlights the flexibility of 'flexible punctuality' and 'perpetual coordination', but the focus upon the whole 'network' also illuminates inflexibility, as when plans are constantly changed and hence uncertain and this is both time-consuming and annoying. There might be a 'tyranny of coordination' linked to what Hylland Eriksen (2001) calls 'the tyranny of the moment'. This article examines young adults and 'private meetings', so future research also need to explore to what degree 'perpetual coordination' and 'flexible punctuality' are common or contested among older adults and in relation to professional meetings, so often typified by time constraint and 'clock-time punctuality'.

Overall, our research shows how mobile phones, computers and email accounts are increasingly *necessary*, because social life is increasingly networked, mobile and at-a distance. The ability to coordinate is part of what we elsewhere have termed 'network capital' (Larsen *et al.* 2006; Urry 2007; see Sik and Wellman 1999 for an earlier and different notion of 'network capital) which comprises *access* to communication technologies, transport *and* the social and technical *skills* of coordinating and networking more generally. 'Network capital' is the capacity to engender and sustain social relations with people who are not necessarily proximate and which generates emotional, financial and practical benefit. It seems particularly crucial to study how the relational possession of this capital is crucial for connecting people, that is, to produce 'social capital'. We need to move away from accounts that presume that only small scale, localised communities can generate 'social capital' (as with Putnam 2000) and understand the significance of travel and communications to the production of 'social capital'. As people are distributed 'far and wide', it appears that network capital is essential for social life, to social inclusion and many forms of social exclusion (Cass *et al.* 2005).

Notes

1   http://www.ofcom.org.uk/media/news/2006/11/nr_20061129
2   http://www.statistics.gov.uk/cci/nugget.asp?id=8
3   http://www.internetworldstats.com/eu/uk.htm

References

Axhausen, K. (2005) 'Social networks and travel: some hypotheses', in *Social Aspects of Sustainable Transport: Transatlantic Perspectives*, eds K. Donaghy, S. Poppelreuter & G. Rudinger, Ashgate, Aldershot, pp. 67–89.

Cass, N., Shove, E. & Urry, J. (2005) 'Social exclusion, mobility and access', *Sociological Review*, vol. 53, no. 3, pp. 539–555.

Castells, M., Fernández-Ardévol, Linchuan, Q-J.M. & Sey, A. (2007) *Mobile Communication and Society: a Global Perspective*, MIT Press, Cambridge, MA.

Fortunati, L. (2005) 'Is the body-to-body communication still the prototype?' *The Information Society*, vol. 21, no. 1, pp. 53–61.

Geser, H. (2004) *Towards a Sociological Theory of the Mobile Phone*, Zurich, University of Zurich, [Online] Available at: http://socio.ch/mobile/t_geser1.htm (5 April 2005).

Goffman, E. (1963) *Behaviour in Public Places*, Free Press, New York.

Goggin, G. (2006) *Cell Phone Culture: Mobile Technology in Everyday Life*, Routledge, New York.

Green, N. (2002) 'On the move: technology, mobility, and the mediation of social time and space', *The Information Society*, vol. 18, no. 4, pp. 281–292.

Hylland Eriksen, T. (2001) *Øyeblikkets Tyrani*, Aschehoug, Oslo.

Jarvis, H. (2005) 'Moving to London time: household coordination and the infrastructure of everyday life', *Time & Society*, vol. 14, no. 1, pp. 133–154.

Katz, J. & Aakhus, M. (ed.) (2002) *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, Cambridge University Press, Cambridge.

Kibby, M. (2005) 'Email forwardables: folklore in the age of the internet', *New Media and Society*, vol. 7, no. 6, pp. 770–790.

Larsen, J., Urry, J. & Axhausen, K. (2006) *Mobilities, Networks, Geographies*, Aldershot, Ashgate.

Laurier, E. (2004) 'Doing office work on the motorway', *Theory, Culture & Society*, vol. 21, nos 4/5, pp. 261–277.

Lethbridge, N. (2002) *Attitudes to Air Travel*, ONS, London.

Licoppe, C. (2004) 'Connected presence: the emergence of a new repertoire for managing social relationships in a changing communication technoscape', *Environment and Planning D*, vol. 22, no. 1, pp. 135–156.

Ling, R. (2004) *The Mobile Connection: the Cell Phone's Impact on Society*, Morgan Kaufmann, New York.

Ling, R. & Ytrri, B. (2002) 'Hyper-coordination via mobile phones in Norway', in *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, eds J. Katz & M. Aakhus, Cambridge University Press, Cambridge, pp. 139–169.

Lyons, G. & Urry, J. (2005) 'Travel time use in the information age', *Transport Research A*, vol. 39, pp. 257–276.

Miller, D. & Slater, D. (2000) *The Internet*, Berg, Oxford.

Putnam, D. R. (2000) *Bowling Alone: the Collapse and Revival of American Community*, Simon & Schuster, New York.

Resnick, M. (1997) *Turtles, Termites and Traffic Jams*, MIT Press, Cambridge, MA.

Rheingold, H. (2002) *Smart Mobs. The Next Social Revolution*, Basic Books, Cambridge, MA.

Sawhney, H. (2004) 'The slide towards decentralization: clock and computer', *Media, Culture & Society*, vol. 26, no. 3, pp. 359–374.

Sik, A. & Wellman, B. (1999) 'Network capital in capitalist, communist and post-communist countries', in *Networks in the Global Village*, ed. B. Wellman, Westview Press, Boulder, CO, pp. 225–254.

Simmel, G. (1997) in *Simmel on Culture*, eds D. Frisby & M. Featherstone, Sage, London.

Townsend, A. (2004) *Mobile Communications in the 21st Century City*, [Online] Available at: http://urban.blogs.com/research/Townsend-TheWireless World-BookChapter.PDF (1 February 2005).

Urry, J. (2003) 'Social networks, travel and talk', *British Journal of Sociology*, vol. 54, no. 2, pp. 155–175.

Urry, J. (2007) *Mobilities*, Polity, Cambridge.

Wellman, B. (2001) 'Physical place and cyberplace: the rise of personalised networking', *International Journal of Urban and Regional Research*, vol. 25, no. 2, pp. 227–252.

Wellman, B. (2002) *Internet in Everyday Life*, Blackwell, London.

Wellman, B., Hogan, B., Berg, K., Boase, J., Carrasco, J. A., Coté, R., Kayahara, J., Kennedy, T. & Tran, P. (2006) 'Connected lives: the project', in *The Networked Neighborhood*, ed. P. Purcell, Springer, Berlin, pp. 157–211.

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