

Research Questions for the Evolving Communications Landscape

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Introduction

The reader should note that the mobile phone is not mentioned in the title of this chapter. This is intentional. This is the point. To complement the increasing amount of researching focusing on mobile phone, this chapter aims to explore the merits of looking at mediated communication in general, seeing the mobile as just one element of that context.

Our communications options are becoming increasingly complex with relatively more major and minor options becoming available. At one time to study mediated interpersonal communication meant studying the fixed-line phone. Mobile telephony and communication via the Internet may have been the more general, outstanding recent additions, but we might think also of the various ways we have of sending and receiving voice messages, text messages and images, manipulating them and controlling communication.

Increasingly we can ask not only why we *use* a particular channel or function but why we *choose* it from amongst the possibilities. And when we use one media, what implications has that for the use of another? To answer such questions requires

thinking holistically, conceptualising communication practices as an ensemble, a repertoire. Indeed, we already see some researchers addressing such relations between the different elements of those repertoires when they refer to processes of substitution or complementarity and to specialised use of certain channels – to be discussed below.

This chapter attempts to use existing studies, mainly of the telephone, the mobile phone and e-mail, to address systematically issues about that repertoire of practices. What new questions, or reformulations of questions, do we ask when this is the focus rather than the individual medium? In part, this exploration also has an ‘applied’ social science agenda behind it, in terms of suggesting what those working to develop ICTs might consider when making sense of new emerging practices and thinking about possible future ones.

- 1) The chapter starts by asking a general question about the limits of the object of study: what might be the boundaries of what we consider to be a communication practice within this repertoire?
- 2) Next, it asks the historical question of where do practices come from? Specifically, what are the continuities between the different elements of the repertoire? How do some of the ways in which we communicate draw upon practices developed using other media or indeed from other routines in our daily lives?
- 3) Turning to how we manage this repertoire, how do we make choices among the elements of that repertoire? What types of factors shape choices, not just in terms of technical features, but also in terms of social relationships? These are not always easy decisions and, indeed, we might ask how much the term ‘choice’ adequately captures the process.

4) Finally the chapter asks about the dynamics of the whole media repertoire over the longer term. What factors contribute to changes in communications choices? How does the repertoire evolve?

The Boundaries of the Object of Study: Communication-Related Practices

The first question concerns the scope of any enquiry into communication repertoires: how broad a vision should we have of what elements count as a communication? Specifically, this section argues why we should always try to imagine what could count as communication-related practices that go beyond but help to make sense of the more detailed patterns of communication.

While we often think of communication as the exchange of words or information between people, there are also a broader set of actions we take that can modify the communication act. Thinking of the mobile phone more generally, we might include the way in which we control mobile use, such as controlling who the mobile number is given out to, switching it off, switching it to voice mail, etc. (Haddon, 2004). These can all either shape 'use' or may be considered to be a part of an expanded definition of 'use'. We might also include how people talk about communications, such as the way they exchange information about how best to exploit mobile tariff structures. Then there are practices such as changing SIM cards or else people borrowing someone else's mobile phones if the mobile phone network of the person being called means this is cheaper or effectively 'free'. And perhaps some of the best recent examples of communications related practices are those related to texting, especially

by youth, which have been documented in a number of studies. These include saving messages, talking with others when composing them, etc. (Johnson, 2001; Kasesniemi and Rautanen, 2002).

Equivalent, in effect boundary defining, questions can, and have, been asked of other means of communications such as the phone and Internet, and could be asked of emerging ones. In what ways can these practices take on a wider importance? To take an older example, research on early British home computing in the mid-1980s, including an analysis of game-playing, argued that it was important to look beyond the moment of sitting in front of the screen to consider all the acts related to 'computing' (Haddon, 1992). These acts included reading the magazines about the new hobby of computing and about the latest games. Knowledge about these games and tips about how to play them was especially important for those, mainly male youth, who followed games as they developed into a cultural industry. Meanwhile, computer-related activities included talk about the computer, comparing experiences, discussing possibilities, both inside and especially outside the home, primarily in the informal culture of school. And they included sharing and copying software.

One reason why it was important for us as researchers to take such practices into account was that they had a bearing upon our very evaluation of what constituted the activities of 'home computing' and 'game playing'. For example, at the time there were widespread social concerns – not unlike ones currently related to the Internet (Nie, 2001) – about people, especially males, becoming isolated in front of screen. This involved fears about the computer making them anti-social (Shotten, 1989). But by looking at these other computer- and game-related activities it became clear that in

certain senses both home computing and games playing could actually be very sociable activities.

In fact, the very interest in these early home computers derived partly from these wider social practices, as did decisions people took about the time they allocated to the computer and to games. Moreover, those interactions and activities away from the screen influenced what people did when they then played games or explored the potential of these early computers. Finally, appreciating the role played by computer-related practices was important for the analysis of patterns of actual use. For example, this contributed to the explanation of gender differences. On the whole, girls did not partake in the range of activities noted above, which meant that while they may have used a computer or played games their experience was not the same as that of the boys who were involved in computing and games playing in these other ways.

To sum up this section, when encountering new elements to the communications repertoire we need to ask what may count as communication-related practices. This is important because it may make a difference to how we conceptualise that communication and to wider claims made about what it means for society. But these practices may also influence the experience of communicating, decisions when choosing among the communications repertoire and hence the patterns of communication that emerge.

Continuities between Media

Jouet, reviewing French research, notes that the adoption of new ICTs takes place against a backdrop of pre-existing techniques. Further new uses are often an extension of what has gone before. The use of the new tools is grafted onto the practices associated with older ones (Jouet, 2000). A similar point is made in an empirical study of Internet use by teenagers, where Quebec researchers argue that we can better understand how people use and interact around media and technologies by locating this behaviour in the context of people's wider and pre-existing cultural practices. In this sense we can think of a "continuum of uses" as new practices are "inscribed within" (or built upon) old ones (Millerand et al, 1999).

In fact, similar observations occur elsewhere. For example, if we look at the social shaping of media, Winston shows how much the form of early TV was based on the broadcasting principles that had evolved in relation to radio (Winston, 1989). This formed part of an argument to show how the emergence of an even apparently dramatically 'new' media is to some extent an evolutionary process. Arguably this is one of the contributions of both an historical and social science memory, always challenging the discourses of technological revolutions.

To take another example, computer games had numerous lineages back to older technologies, to the video arcade machines, to TV games consoles, even to pinball (Haddon, 1992, 1999a). Once again, it was important to appreciate such continuities in order to understand the historical construction both of interest in these technologies and the particular practices relating to them. For example, in the 1970s games arcades

were mainly male domains, and so it is easier to appreciate the greater interest of male youth in early home games machines. Looking for continuities can, in some circumstances, help explain patterns of use.

If the discussion above was intended to establish why it is important to consider continuities in general, we can now go further using the examples of existing studies to map at least some different types of continuities in relation to our communication repertoires.

First, there are continuities in communications related to specific events. For example, this might include using e-mail to announce the birth of a child, whereas previously one might have made phone calls or sent cards (Manceron et al, 2001). It could include male partners acquiring a mobile to be reachable at childbirth, whereas in the past they might have given fixed phone number where could be found (Manceron et al, 2001). And it could cover sending e-mails or electronic Christmas cards at Christmas instead of sending Christmas cards.

Second, there are continuities from more routine practices. One example might be people using the mobile phone at work for private purposes (Mercier, 2001) - whereas in the past one might have used the work fixed line (De Gournay, 1997). Another would be children chatting on-line after school, or using a mobile phone, whereas in the past they might have used a fixed line. We have 'gift' of mobile phone calls or text messages, whereas in the past some fixed line calls could have equally well been conceptualised as gifts (Nafus and Tracey, 2002. Johnsen, 2001). And the practice of teenagers texting each other in the classroom is really an updated, and less visible,

version of passing paper notes around without the teacher seeing (Ling and Yttri, 2002).

Finally, we have continuities from previous practices not necessarily considered in the past as communication. One illustration of this is the case of teenagers ‘hanging out’ on-line via instant messaging to hear of something interesting, to hear if something was ‘happening’, compared to hanging out in a physical public spaces such as shopping malls (Rainee, 2001).

On the one hand, looking at such continuities also raises the question: how ‘new’ are new practices? But if we always look just for continuities, we may be asking a conservative question. Clearly we also need to appreciate how different new practices are, what do they lead to which is a new departure and where and in what ways do they make a difference. For example, evidence has been cited to support the argument that using mobiles at work has led to extra social communications by males that might otherwise not have taken place, and that they may have increasingly become “ambassadors for family” (Mercier, 2001). Meanwhile, e-mail sent to those at the periphery of social networks instead of the occasional letter or Christmas card may have lead to more communication and, indeed, maintaining contact with older social networks that might otherwise have been lost. Finally, Ling (and others) draw attention to the opposite scenario asking whether people are actually communicating more fewer, closer others via the mobile phone at the cost of weaker social ties (Ling, 2004).

In sum, when studying both current and future innovations we can ask whether we can see any types of continuity from previous practices. If so, what types of continuities exist and what types of past precedent are we talking about? On the other hand, to what extent new practices are different from older ones and to how does this make a difference to how we experience them? Finally, there are the analytical challenge that such questions might pose: how much can one only appreciate continuities with hindsight and how difficult is it to make predictions on the basis of seeing possible continuities?

Factors Shaping the Choice between Communication Options within the Repertoire

In a recent study of the use of ‘new media’ (in this case meaning mainly screen based media) by children and youth there is some discussion of how the young people manage and choose from the increased range of options available (Livingstone and Bovill, 2001; Livingstone, 2002). The analysts talk of an increased “media mix” and choosing from larger “media menus”. This parallels the increased communications repertoire described here.

As in the field of communications, this new media study discusses the long running interest in whether the use of one medium displaces or substitutes for another. If we look beyond the case of just children, we might consider the examples of how newly arriving TV channels influence how much time people spend watch the existing ones, and the effects of cable and satellite on time spent watching terrestrial TV, or of VCRs on time watching live TV or of the PC and more recently the Web on time for

TV. In the communications field, the equivalent questions would cover the extent to which mobile telephony and e-mail might have an effect on our use of the fixed phone.

But those studies of children and screen media are sceptical of a simple displacement thesis. For example, historically the influence of TV's arrival was not simply one of decreasing time for cinema and radio – the experience of these other media changed as their use became more specialised and differentiated (Johnsson-Smaragdi, 2001). In fact, the above author notes that at a societal level old media are rarely completely displaced, although individuals may give up some ICTs.

The same general theme is repeated elsewhere. In the review of French research on ICTs in general - but the point could be applied more specifically to communications - it was clear that new innovations complemented old ones rather than substituting for them: e.g. electronic messaging has not displaced the telephone (Jouet, 2000). In fact, that review argues that the arrival of new ICTs leads us to use pre-existing objects in new ways and in general increases the complexity of communication practices.

Thinking in terms of repertoires helps to move the emphasis of being a user of communications to being a manager of communications. This shifts the focus to people making choices or developing strategies, albeit within the external parameters offered by the (socially shaped) means of communication and against a background of social constraints and expectations. To make a link with some other chapters in this book, this involves coping with the options opened up in everyday life just as

Goffman's actors do, but noting that the growing repertoire at their disposal makes the decisions ever more complicated.

So what is involved in this complexity? By now we have enough studies to begin to start painting a broad picture of the types of considerations facing people as communications managers, to consider the process of repertoire management.

One first factor to consider is how the qualities of communication media favour certain choices, not just the technical ones but economic ones such as the financial costs entailed by using different telecommunications media. Examples might include texting because it can be cheaper than speaking on the mobile, using the free minutes within mobile phone tariff packages rather than using a land line, or using the work phone for private purposes rather than the home line or mobile.

The qualities also include symbolic associations, whether derived through marketing policies or associations picked up through some other means, such as the way in which people use the technology. An example of this would be the way mobile phones are perceived by some as disturbing public space (Haddon, 2004).

But, of course, choices are also influenced by what technological forms and capabilities enable and constrain. Here we might consider the display and storage capacity of devices (e.g. limited number of characters in a text message), the personalisability of terminals (e.g. the ability to add ring tones, logos), physical portability, facilities allowing 1-to-1, or 1-to-many communication' features of the media allowing anonymity, features allowing one to get information of some kind

about the caller and features allowing different forms of control over communication. Then there are the various properties usually more specific to sending text, images etc such as storability and retrievability, the related sharability (allowing others to share the message or image), the option to send and receive attachments (text, image, audio-visual, sound), etc, all of which support certain types of communication-related practices discussed earlier.

And yet, to emphasise the creativeness of social actors we should add that even when there are technical constraints there is sometimes scope for manoeuvre on the part of users. The technical does not always present a rigid barrier to use. To take the example above, the limited number characters in a text message might at one time have seemed a powerful inhibitor to choosing this medium, but studies have shown how users have in fact been very creative in overcoming this limitation. This must lead us to always ask how much technological features really allow and constrain use, and so influence choice and how much scope is there for manoeuvre on the part of users in relation to different technical features.

Another question concerns the status of the items on a list such as the one above. How much technical fluidity is there? Which technical parameters are more core to a particular medium, relatively unchanging and where is there more scope for innovation that may change the possibilities and constraints associated with that option over time (as in the way mobile phones have become more personalisable, to take one of the examples above).

The second set of considerations is the social factors favouring certain communication choices. These could include the purpose and content of communication, such as communications that are gifts or communications that provide a sense of security. They could cover the urgency of communication, varying from communications in the event of emergencies and new contingencies and communications to finalise arrangements to meet through regular contact with close family, to occasional contact with extended family and distant friends to keep in touch.

We would have to consider the social relationship to the other communicator: for example, contact with immediate family, communications with extended family, contact with close friends, 'mates', old-friends, acquaintances, colleagues, etc.

Then we have the physical proximity of communicators, meaning the degree of distance with a country as well as communications abroad. One further factor would be the 'social location' of the persons communicating. For example, whether they are at home, in the work place or in various public spaces. And finally there are the communication norms of social networks, an example being the fact that texting, e-mail and or chat are the most commonly used media of some networks of young people.

On the one hand, various studies suggest that these are indeed all considerations in making choices. But we should bear in mind that all such checklists are simplifications. For example, consider the communication norms of social networks. Within social groups or networks there can be rules and expectations about the appropriateness of different media for different circumstances. One study of texting by youth showed that there are understandings about when it is inappropriate to use texting as opposed to using other means of communication, including face-to-face

communication. For instance, the study showed how it is not considered right to end a relationship, to dump someone, through sending a text message (Taylor and Harper, 2001). But even here there is not always consensus, as some network members make choices that others think is inappropriate.

The third set of social considerations consists of the social constraints affecting the choice of medium. These would include the regulation of one's communications by others, as when parents attempt to regulate outgoing calls on the fixed line, mainly but not exclusively because of cost considerations (Haddon, 1994, 1998) - which may privilege the use of the mobile in certain cases. Nor should we forget the formal regulation of certain media in other social spaces (e.g. e-mail for social purposes at work - Haddon, 2002).

Social constraints are also revealed in what is felt to be inappropriate communication in certain social spaces and reactions to this, such as informal pressures to restrain mobile use in certain public spaces. We would have to consider social commitments to other people at certain times, for example, not using the Internet at certain times in the evening in order to keep the family phone line free for incoming calls (Lelong and Beaudouin, 2001). And we would want to include the strategies that people use for controlling their own communication, such as young people steering calls to their mobiles, or the mobile's voice mail, rather than to the domestic fixed line (or household answering machine) or the reluctance to give out mobile numbers to work colleagues has been noted in several studies.

One key point to derive from this discussion of constraints is that it actually provides a useful antidote to some of the misleading connotations of emphasising choice amongst the communication repertoire. It reminds us that while we do indeed ultimately make choices, these are made within social constraints, sometimes external, as in the case of the social pressures from other people, and sometimes partly of our own making, as in our obligations to others and our own communication agendas.

Finally, to complete the picture, we need to consider how people link different forms of communication when making choices. After considering various examples (and echoing themes from previous French studies) de Gournay and Smoreda conclude that despite claims about technological convergence some communication tools are used for only certain types of communication – i.e. there is a degree of specialisation (de Gournay and Smoreda, 2001). This may be true generally. But people do also sometimes shift between different parts of the communication repertoire in the short term. This means that for a more complete picture the complexity of repertoire management we need to consider the dynamic dimension as well.

Thus we have another level of relationship between the elements of the communication repertoire: the short-term movement from one to another. This can include reconfirming a message made in one medium through another one, such as e-mailing someone to confirm a phone decision. Then we have using one medium to set up another, for example making a phone call to ask for an attached file to be sent by e-mail.

Shifts between media may result when the first choice fails or is not available, as in the case of sending a text message when a phone call does not get through or phoning someone on the mobile when a fixed line is blocked (Klamer et al, 2000, Haddon and Vincent, 2004a, 2004b). Or there is the example of using one mode when someone failed to reply by another – such as the example of a teenager phoning on the mobile to ask why someone had not replied to their text-message: i.e. the latter had not met their expectations about how to use one channel of communication properly in terms of giving a timely reply (Taylor and Harper, 2001). And shifts be necessary to sort out problems through one medium that were created through using another, for example making a phone call to clarify an e-mail (Mante-Meijer and Haddon, 2002).

To summarise, when we start to outline the considerations affecting choice, which are more nuanced than can be contained in discussions above, then we can start to appreciate in what ways social actors as communications managers make complex decisions. In fact, they are having to make more complex decisions than previous generations who had fewer options. A second observation can be derived from the examples related to shifts between communications, especially the latter ones showing communications problems. These draw attention to the fact the managing the communications repertoire does not always run smoothly. A typology of factors is a start, but that does not in itself tell us who does what, in what circumstances – i.e. the patterning on communication choices. For example, might we expect to find differences by generation, with older generations feeling more at home using a more limited repertoire, younger ones experimenting more? Or might we expect to find the influence of other standard socio-demographic variables, such as gender, life stage or class? There is clearly scope for further research here.

Longer Term Dynamics of the Communication Repertoire

This last section completes the review by considering longer-term changes that people make in relation to their communications repertoire. Of course, this can occur in terms of changes in how people communicate with specific individuals, as their relationships develop (Ling, 2000). But here we consider the more general question of people develop new routines and change their practices for handling certain types of communication.

The dynamics of how we develop our use of individual ICTs had been tackled in a number of different research traditions. There have been studies of apprenticeships with new ICTs (Lelong and Thomas, 2001). The process of integrating ICTs into daily life and their subsequent careers has been considered with the domestication framework (Haddon and Silverstone, 1994; Bakardjieva, 2001). And there has been research into the effects on communication of major changes in life stages (Manceron et al, 2001).

One change in emphasis that arises when we look at the communications repertoire as a whole rather than individual means of communications is that as new communications possibilities come on the scene people already have an existing set of options that they are using. This means that they may simply decide that they can manage with those existing options. Or that there are particular reasons for sticking to their existing practices. For example, the quote below shows how someone tried out e-mail for organising meetings, but then abandoned it to go back to the older practice of using the phone.

If it's something like someone sends you a message about where to meet that night it's quicker just to pick up the phone. E-mails can be terribly delayed. It's a real problem actually, it really screws things up, I can think of loads of arrangements that have been totally screwed up by e-mails not getting through in time. I've missed meeting people and I've not known about things that I've been invited to because they didn't come through. (Haddon, 2000).

However, even if at one point in time one option seems to be have disadvantages compared to another (or have other implications), this does not prevent it from being adopted at a later stage. Or, as the example below shows, the experience of problems associated with a new element of the repertoire may lead to it being modified.

I feel like I can get a bit overwhelmed with all the e-mail I receive (...) I'm writing much shorter mails because of that, there's just too many, and I don't put as much effort in as I used to. It's got to the point where I just send something, however short, just to maintain a presence. I just say hello rather than give much detail about what I'm doing. (Haddon, 2000)

The last point to make by way of general observation is that within the repertoire different practices within the communications repertoire will also have different degrees of inertia. Certain ones may be relatively short-lived, such as some people's experience of pagers in the few years before the mobile phone and texting options became popular. By comparison, for certain purpose many people feel comfortable using the fixed phone line, despite the arrival of more possible alternatives. If we look

beyond just electronically mediated communication, for some letter-writing has been more drastically affected by the advent of e-mails, while for others it has retained a place in life. For some youth, chatting on the phone after school remains important, while for others on-line chat has taken on some of that role.

Having established some general sense of the changes that can occur over the medium to longer term, we can start to chart some of the factors that can lead to such change.

One such factor is changing individual or household circumstances (e.g. life stage, work, commitments) as shown in a study where people first used e-mail and mobiles with the birth of the first child (Manceron et al, 2001). Another factor is the changes in the form of communications within social networks or within a cohort of people of the same generation, such as the rise of texting amongst youth in various countries

Then we have to consider wider societal changes, or changes with particular institutions, as when in the UK, the BBC promoted e-mail addresses and texting, social debates covered in the media about the need to regulate mobile phone usage (e.g. because of health, because of disturbances of public space). The changing regulation of mobile telephony use in certain public spaces would be another example. Finally, there are changes in communications options and promotions (e.g. new products, new pricing, new technical options, new marketing), such as pre-paid cards for mobile phones and the marketing mobiles as fashion items.

For research purposes it is worth noting one methodological issue here. In many respects the macro level, the wider societal changes, leaves more historically visible traces: e.g. when events are captured in the media, the appearance of new adverts, in

the documentation of the launch of innovations and in institutional memories of when a decision was made. How practices emerged, where tried out, perhaps the role of chance events at the other levels, the individual and group levels, can be more easily forgotten. People can usually remember the process of acquiring technologies and services, because that is a major decision. They might remember usage associated with significant events, such as the decision to use e-mail to tell people of the birth of a child. But there are many, many smaller practices, now routine, when it is more difficult to remember the details of how they emerged, why choices were made, why some things were and were not considered.

The problem is that because such small changes in practice escape the research eye it is difficult to say how much the pattern that did emerge could easily have been otherwise – be that in terms of an individual's repertoires or the usage of some means of communications within wider social groups. For example, at one stage the use of the fixed line for social was not anticipated within the telecommunications industry. To give a more recent example, with hindsight one can give reasons why texting might appeal, especially to youth. Indeed, contemporary youth can articulate these reasons now. On the other hand, texting still, arguably, represented a major shift in practices over a relatively short period of time. It is perhaps a surprising move to have to type of socialising we see on SMS handled by text instead of orally (Fortunati, 2000). It is not clear that one would have thought this a likely development in advance, which has implications for the limits of analysts' ability to predict the take up of new innovations.

This problem of invisibility raises some questions for researchers and product

developers trying to understand patterns of adoption. It raises the question of the contingency of the patterns that exist now. While it is commonplace for analysts to be able give reasons for why a practice was not taken up by individuals or groups, should we question whether rejection was automatic or whether that failure to adopt was inevitable? In other words, where might non-use have been contingent and it could have been otherwise if other things had occurred, including chance events?

Conclusion

In a world where the communication options open to us are becoming ever more varied this paper has explored what can be gained through seeing the totality of communications practices as a repertoire and analysing the relationships between its elements. It has put this into some historical context by showing parallels with previous questions raised about the relationships between other ICTs. And it has posed some questions we might ask, or a framework for thinking about, not only current practices but ones related to emerging and future innovations.

In considering the scope of the repertoire we looked first at examples of communication-related practices, broadening our viewpoint to ask what the object of analysis is when studying communication, what this could include, The chapter also reflected upon why these practices might be important in terms of how we characterise and evaluate communications practices and understand patterns of use and choice.

Next we considered the relationship between repertoire elements in terms of the evolution of new practices from existing ones. This looked at the continuity between practices, as identified by some previous research, a focus on which helps avoid emphasising too much their uniqueness and novelty and stresses evolution over revolution. But of course this does not mean ignoring their difference and the implications that may follow from this.

We moved on to the factors affecting choice between the elements of the repertoire, exploring ways in which that choice was complex. Thinking in terms of repertoires helps move the emphasis from user to communications manager. Within such choices technical qualities play a role, but the emphasis was on charting key important social processes and indicating the limits of choice – how choices are made within constraints.

Finally, we looked at the dynamics of the elements in the repertoire, showing the types of influence that can lead to changes in the balance of practices. What the chapter has not done is to discuss the social consequences of that changing balance. That is starting to be addressed, as noted earlier when some researchers ask about the implications of certain Internet use or mobile phone use. But what the chapter has attempted to do is to provide some general guidelines for understanding the take up of new communications options, for understanding why they are used in the way that they are used and our degree of commitment to them.

There is one further question to end on and that is one of how settled the choices from that repertoire are for different people at any one time. It takes some time to learn to

use a technology. It takes some time to learn when it can be useful. But it also takes some time to learn to manage the combination of options available to us, one that has become increasingly complex. This means time to experiment, to find what works best in what circumstances, to discover the implications of certain practices and circumstances when they prove to be problematic. But this process itself takes place within a dynamic environment. The mobile phone and Internet may have started as mass markets in the mid-90s but there have been further new developments throughout (the rise of texting, the complexities of mobile pricing, the growth of spam email) as well as the uneven and staggered take up of new communications options among the wider population. Without even thinking in terms of the longer-term dynamics described above, in empirical studies we might always ask how much the patterns of use that we uncover are relatively settled, even in the shorter-term.

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